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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2021

or

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

For the transition period from to

Commission file number 001-36067

Mandiant, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**20-1548921**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

11951 Freedom Drive, 6th Floor
Reston, VA 20190
(Address of principal executive offices and zip code)

(703) 935-1700
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	MNDT	The NASDAQ Global Select 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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

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

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

As of June 30, 2021, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by non-affiliates was approximately $4.8 billion, based on the closing sales price of such stock reported for such date on The NASDAQ Global Select Market. This calculation does not reflect a determination that persons are affiliates for any other purposes.

The number of outstanding shares of the registrant's common stock was 233,826,926 as of February 23, 2022.

DOCUMENTS INCORPORATED BY REFERENCE

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

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the sections entitled "Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The words "believe," "may," "will," "potentially," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect," the negative and plural forms of these words and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements concerning the following:

- *the evolution of the threat landscape facing our customers and prospects;*
- *our ability, and the effects of our efforts, to educate the market regarding the advantages of our security solutions;*
- *our ability to continue to grow revenues, in particular annual recurring revenues from subscriptions;*
- *our future financial and operating results;*
- *our business plan and our ability to effectively manage our growth and associated investments;*
- *our beliefs and objectives for future operations;*
- *our ability to attract and retain customers and to expand our solutions footprint within each of these customers;*
- *our expectations concerning customer retention rates as well as expectations for the value of subscriptions and services renewals;*
- *our ability to maintain our competitive technological advantages against new entrants in our industry;*
- *our ability to timely and effectively scale and adapt our existing technology;*
- *our ability to innovate new and enhanced offerings and bring them to market in a timely manner;*
- *our ability to build strategic partnerships with security product companies that the FireEye Products business previously competed with;*
- *our ability to design and build a platform that is agnostic and can work with other security systems and products;*
- *our ability to maintain, protect, and enhance our brand and intellectual property;*
- *our ability to expand internationally;*
- *the effects of increased competition in our market and our ability to compete effectively;*
- *cost of revenue, including changes in costs associated with our services and customer support;*
- *trends in operating expenses, including changes in research and development, sales and marketing, and general and administrative expenses;*
- *anticipated income tax rates;*
- *potential attrition and other impacts associated with restructuring;*
- *sufficiency of cash to meet cash needs for at least the next 12 months;*
- *our ability to generate cash flows from operations and free cash flows;*
- *our ability to capture new, and renew existing, contracts with the United States and international governments;*
- *our expectations concerning relationships with third parties, including strategic partners, channel partners and logistics providers;*
- *economic and industry trends or trend analysis;*
- *the impact of the COVID-19 pandemic and related public health measures on our business and the global economy;*
- *the attraction, training, integration and retention of qualified employees and key personnel;*
- *future acquisitions of or investments in complementary companies, products, subscriptions or technologies;*
- *our expectations, beliefs, plans, intentions and strategies related to our acquisition of Respond Software, Inc. and Intrigue Corp.;*

- *our expectations, beliefs, plans, intentions and strategies related to our divestiture of the FireEye Products business to a consortium led by Symphony Technology Group including, our expectations related to the transition services agreement and the impact of the divestiture on our remaining business;*
- *costs and any benefits of our divestiture of the FireEye Products business; and*
- *the effects of seasonal trends on our results of operations*

These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described in "Risk Factors" included in Part I, Item 1A and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties, and assumptions, the forward-looking events and circumstances discussed in this Annual Report on Form 10-K may not occur, or unanticipated events or circumstances that we did not foresee may materialize, either of which could cause actual results to differ materially and adversely from those anticipated or implied in our forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances described in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this Annual Report on Form 10-K to conform these statements to actual results or to changes in our expectations, except as required by law.

You should read this Annual Report on Form 10-K and the documents that we reference in this Annual Report on Form 10-K and have filed with the SEC as exhibits to this Annual Report on Form 10-K with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

PART I

Item 1. Business

General

Mandiant, Inc. is a global cybersecurity company with a mission to protect our customers from cyber-attacks using innovative technology, intelligence and expertise from the front lines.

We provide intelligence-based cybersecurity solutions and services that allow organizations to prepare for, prevent, investigate, respond to and remediate cyber-attacks, including attacks that target on-premises, cloud, and critical infrastructure environments.

We have evolved our business from a focus on appliance-based detection and prevention of stealthy and targeted cyber-attacks in customers' on-premise networks by expanding our portfolio of technologies and services to help customers address today's cybersecurity challenges. These challenges include a constantly evolving threat environment, expanding attack surfaces, ongoing digital transformation initiatives, and an acute shortage of cybersecurity talent.

We accomplish this through the integration of our core competitive advantages across our portfolio of cybersecurity solutions and services. Our core competitive advantages include:

- our accumulated security expertise derived from responding to thousands of significant breaches over the past 15 years,
- our intelligence on threats and threat actors based on our experience responding to thousands of significant security incidents every year, as well as threat intelligence gathered by our security analysts, consultants and the continuous flow of machine-based threat data from our global network of threat sensors and virtual machines and,
- our technologies, including artificial intelligence-based extended detection and response ("XDR") technologies, our security validation technology, our machine-learning, behavioral-based, and rules-based threat detection, analysis and correlation technologies, and attack surface management.

We design our cybersecurity solutions to rapidly incorporate the latest threat intelligence as the threat environment evolves. Through our work on the front lines, we learn the tactics, techniques and procedures ("TTPs") attackers are using to circumvent current security safeguards. Our expertise and threat intelligence fuels our detection, validation, and automated response capabilities and becomes an integral component of our technologies in a cycle of intelligence-driven innovation. We also offer managed and consulting services to our customers to augment their internal security resources, to aid in the deployment and management of our solutions and to provide expertise on-demand when needed.

We believe that the combination of our technologies, threat intelligence and security expertise allows us to deliver more effective cybersecurity SaaS solutions and services, help customers improve the effectiveness of their cyber defense and security investments, and enables us to build long-term relationships with our customers.

We market our solutions and services under the Mandiant brand.

Mandiant helps customers improve their resilience to cyber-attacks by automating and operationalizing our intelligence and expertise in software, and by augmenting internal resources with Mandiant expertise through managed services as well as on demand and consulting services. Our Mandiant solutions include our controls-agnostic threat intelligence, validation, attack surface management and XDR SaaS solutions, as well as our portfolio of managed services and consulting services. We have developed the Mandiant Advantage platform to be a single portal for customers to access all Mandiant Advantage modules and to integrate with our customers' existing security technology environment.

In January 2020, we acquired Cloudvisory LLC ("Cloudvisory"), a provider of cloud visibility and control solutions.

In November 2020, we acquired Respond Software, Inc. ("Respond Software"), a cybersecurity investigation automation company.

In December 2020, we issued and sold 400,000 shares of a newly designated 4.5% Series A Convertible Preferred Stock, par value $0.0001 per share, at a price of $1,000 per share, for an aggregate purchase price of $400.0 million.

In May 2021, we entered into an Asset Purchase Agreement, pursuant to which we agreed to sell the FireEye Products business to a consortium led by Symphony Technology Group ("STG"). The transaction closed on October 8, 2021.

In June 2021, we announced a stock repurchase program for the repurchase of up to $500 million of our common stock. There is no expiration date on this authorization, and we may suspend, amend or discontinue the repurchase program at any time. During the year ended December 31, 2021, we repurchased 16.8 million shares of our common stock for $300.0 million, at an average repurchase price of approximately $17.81 per share. The repurchases were recorded to additional paid-in capital as we are in an accumulated net deficit position.

In August 2021, we acquired Intrigue Corp ("Intrigue"), a developer of attack surface management technology.

As of December 31, 2021, we had approximately 5,300 end-customers; approximately 48% are included in the Forbes Global 2000. Our customers include leading enterprises in a diverse set of industries, including telecommunications, technology, financial services, public utilities, healthcare and oil and gas, as well as leading U.S. and international governmental agencies.

For the years ended December 31, 2021, 2020 and 2019, our revenue was $483.5 million, $399.7 million and $331.4 million, respectively, representing year-over-year growth of 21% for the year ended December 31, 2021 and 21% for the year ended December 31, 2020. We recognized net losses from continuing operations of $412.1 million, $349.3 million and $362.9 million for the years ended December 31, 2021, 2020 and 2019, respectively. We recognized net income after discontinued operations of $897.7 million for the year ended December 31, 2021 and net losses after discontinued operations of $213.0 million and $257.4 million for the years ended December 31, 2020 and 2019, respectively.

Impact of COVID-19 on our Business

In March 2020, the World Health Organization declared the novel coronavirus disease (COVID-19) a global pandemic. We operate in geographic locations that have been impacted by COVID-19. The pandemic has impacted, and could further impact, our operations and the operations of our customers as a result of quarantines, various local, state and federal government public health orders, facility and business closures, and travel and logistics restrictions. With our COVID-19 safety plans, work-from-home and return-to-office policies and restricted employee travel to essential, business-critical trips we were able to maintain strong customer relationships and deliver our technology-enabled managed and professional services to customers without interruption. As a result, we did not incur significant disruptions to our operations during the year ended December 31, 2021 due to the pandemic.

We anticipate governments and businesses may take additional actions or extend existing actions to respond to the risks of the COVID-19 pandemic, including any recurrence of the virus or its variants. We continue to actively monitor the impacts and potential impacts of the COVID-19 pandemic in all aspects of our business. Although we are unable to predict the impact of the COVID-19 pandemic on our business, results of operations, liquidity or capital resources at this time, we expect we may be negatively affected if the pandemic and related public health measures further result in substantial supply chain problems, disruptions in local and global economies, volatility in the global financial markets, overall reductions in demand, delays in payment, or other ramifications from the COVID-19 pandemic.

For a further discussion of the uncertainties and business risks associated with the COVID-19 pandemic, see the section entitled “Risk Factors” in Part I, Item 1A of this Annual Report on Form 10-K.

Available Information

Our principal executive offices are located at 11951 Freedom Drive, 6th Floor, Reston, VA 20190, and our telephone number is (703) 935-1700.

Our website is www.mandiant.com. Information contained on, or that can be accessed through, our website is not incorporated by reference into this report, and you should not consider information on our website to be part of this report. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on the Investor Relations portion of our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at www.sec.gov. The contents of these websites are not incorporated into this filing.

Investors and others should note that we announce material financial information to our investors using our investor relations website (https://investors.mandiant.com), SEC filings, press releases, public conference calls and webcasts. We use these channels, as well as social media, to communicate with the public about our company, our services and other issues. It is possible that the information we post on social media could be deemed to be material information.

Our Cybersecurity SaaS Solutions and Services

Our SaaS solutions and services are designed to help organizations of all sizes improve their resilience to cyber-attacks and reduce the risks of a costly breach. We market our solutions and services under the Mandiant brand. Mandiant helps customers prevent, detect, investigate, and respond to cyber-attacks.

Platform, cloud subscription and managed services

Mandiant Advantage SaaS Solutions

Mandiant Advantage is a controls-agnostic SaaS platform that helps customers improve their security profile with software that operationalizes our intelligence in their environments and managed services that augment internal resources, regardless of the security control products deployed. Mandiant's SaaS offerings include our threat intelligence subscriptions, our security validation, attack surface management and XDR software-as-a-service solutions, and our managed services where Mandiant experts manage our SaaS solutions for our customers. We developed the Mandiant Advantage SaaS platform to be a single portal for Mandiant customers.

Subscriptions to Mandiant SaaS solutions are typically offered for one- or three-year terms and are usually invoiced for the full term of the subscriptions up-front.

Mandiant Advantage - Threat Intelligence is a powerful SaaS-based module within the Mandiant Advantage platform that provides organizations of all sizes with up-to-the-minute, relevant cyber threat intelligence so they can focus on and address the threats that matter now.

Threat Intelligence is available in three subscription levels through the Mandiant Advantage platform:

- Free subscription includes publicly known vulnerability and threat intelligence overlaid with Mandiant insights and threat scores to provide situational awareness;
- Security Operations subscription provides intelligence on actors, malware and vulnerabilities to help customers prioritize alerts and understand the attacker, capabilities and motivations behind security events; and
- Fusion subscription provides in-depth analysis of threat actors, technical and dark web research findings, and incident response intelligence to enable informed cyber defense investments and decisions.

Our Digital Threat Monitoring and Vulnerability modules are included in Fusion, and are available as add-on subscriptions to Security Operations and Free subscription levels. Digital Threat Monitoring helps customers identify unknown breaches and high probability attacks by using customer-defined key words and our automated web reconnaissance technology to analyze content on the open and dark web for credential leakage, public data exposure and other potential threats. Our Vulnerability add-on subscription provides notifications on new zero-day vulnerabilities and analysis of likely usage by threat actors to enable targeted resolution.

Mandiant Advantage Security Validation. Security Validation allows organizations to measure, manage and communicate the effectiveness of their security controls. The solution is led by the latest threat intelligence and safely emulates attack behaviors and malware within customer environments and aggregates, analyzes and reports on security controls ability to detect, prevent and generate alerts. Customers use validation findings to identify gaps in security defense, often due to equipment misconfigurations and environmental drift within the IT environment, as well as identify opportunities for optimization and cost rationalization. Security Validation may be used to automate testing and reporting of industry attack frameworks, including MITRE ATT&CK Framework and NIST, with an extensive content library of global threat actors and relevant threats powered by Mandiant Advantage Threat Intelligence.

Our Security Validation architecture includes extensive out-of-the-box integrations that span across organizations' entire security environment and authentically challenges security controls across the full attack life cycle, arming security leaders with data to quantify risk and prove security effectiveness and the value of their investments. Based on customer's desired business outcomes or specific threats, Security Validation is available as a cloud-based security-as-a-service or deployed as a virtual appliance on-premise, a SaaS solution or managed service overseen by Mandiant experts.

*Mandiant Advantage Automated Defense (*formerly Respond Security Analyst) is a cloud-native XDR solution that automates the analysis of data from control points, security solutions and analytics at machine-speed to identify and prioritize high risk security events for further investigation. Automated Defense uses artificial intelligence techniques, including probabilistic mathematics and an integrated reasoning engine to mimic the judgement of security analysts. Automated Defense integrates with security products from more than 65 security and IT vendors and is available as cloud-based software-as-a-service or a detection and response service or as a managed detection and response service overseen by Mandiant experts.

Managed services. We offer managed detection and response ("MDR") and managed validation services overseen by Mandiant experts with frontline experience to augment internal security resources. Our Managed Defense MDR service is available to provide nights and weekends coverage, managed endpoint security, and managed security for industry control systems ("ICS") and operational technology (OT) environments using our detection and response technologies. Our Managed Validation service utilizes our Security Validation software to test security effectiveness based on pre-defined customer parameters.

Professional Services

Mandiant professional services include industry-leading incident response, security assessment, transformation consulting and training services with remote and on-site tactical support. Our services help organizations effectively prepare for, prevent, investigate, respond to and remediate cyber-attacks to minimize the impact of an attack before, during and after an incident.

- *Incident response services.* Mandiant incident response services include investigation, containment, remediation and crisis management services to help organizations resolve security incidents quickly. We also offer compromise assessments to help clients understand if they are currently compromised and incident response retainers to pre-negotiate rates and establish an SLA.
- *Security assessment services*. Our security assessment capabilities cover a broad spectrum of offerings that help organizations evaluate their ability to prevent, detect, respond, and contain cyber threats before they disrupt the business. Services include security program assessments covering the entire enterprise, including cloud and remote access environments, ransomware,

cybersecurity risk, security due diligence, insider threats and industrial controls. We also offer response readiness assessments and tabletop exercises to help organizations test their incident preparedness and hone their skills. Additionally, we can help organizations evaluate their ability to detect and respond to attacks with red and purple team exercises and penetration testing, as well as a number of targeted assessment services covering specific components of the enterprise environment.

- *Security transformation services*. Our cyber threat intelligence and cyber defense operations transformation services help organizations build, develop, and mature their cyber defense capabilities by improving an organizations detection, response, containment and remediation capabilities. Mandiant Consulting provides hand-on support to design and implement and operate cyber threat intelligence and incident response processes and solutions within the existing cyber defense environment.
- *Cybersecurity training*. We offer instructor-led and self-paced online courses to our customers and channel partners through our training department and authorized training partners. Courses draw from the full spectrum of Mandiant capabilities, including advanced cyber threat intelligence analysis, frontline incident response expertise, red teaming and malware reversing developed by Mandiant experts.
- *Mandiant Expertise On Demand*. Expertise On Demand is an annual subscription for flexible, pay-per-use access to our threat intelligence and expertise as microservices. Customers purchase packages of units based on their anticipated needs and use the units to access threat intelligence and Mandiant services, including our incident response retainer at pre-determined unit values. Unused units typically expire one year after purchase.

For contributions to total revenue by significant category of revenues, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Part II, Item 7 of this Annual Report on Form 10-K.

Our Technologies

We have developed proprietary technologies related to machine-based threat detection, continuous security controls validation, security orchestration, and automated extended detection and response. Our technologies leverage our frontline intelligence about threat actors' tools and techniques, gathered through our incident response and security assessment engagements, the analysis of our machine-generated threat intelligence, and our network of security researchers, to adapt to new threats and changes in the threat environment. We use our technology in the delivery of our services, and believe these technologies, combined with our threat intelligence and security expertise, differentiate our products.

Security Validation. Our security validation software is designed to emulate attacker TTPs, including malware and ransomware, to safely deploy and execute code within customer production IT environments to understand an organization's level of cyber preparedness.

Automated Extended Detection and Response. Our XDR technology uses multiple AI and machine-learning capabilities, including integrated reasoning, dynamic scoping and reprioritization, and probabilistic mathematics, to mimic security experts' judgement at machine-speed in the investigation, scoping and prioritizing of security alerts. The AI and machine-learning models are trained using Mandiant frontline intelligence and expertise to learn from, and adapt to, the evolving threat environment.

Evolved Security Architecture and Security Orchestration. Our products, SaaS solutions, and services are designed to operate as part of a comprehensive security architecture to defend organizations against today's cyber threats and minimize the business impact of cyber-attacks through efficient security operations and validation of security effectiveness. The ability to monitor and inspect network and email traffic, as well as stored files and forensic data, cloud activity, and equipment configurations is critical to detecting cyber threats and reducing the risk of a costly cyber breach. We combine this visibility with our dynamic, contextual and strategic threat intelligence, case management tools and AI-based XDR engine to enable rapid, prioritized responses to critical alerts. Our SOAR tools and technologies integrate with Helix and our XDR solutions to extend security processes and response activities across the IT infrastructure.

Customers

Our customer base has grown to approximately 5,300 end-customers as of December 31, 2021; approximately 48% are included in the Forbes Global 2000. We provide security control products, SaaS solutions and services to customers of varying sizes, including enterprises, governmental agencies and educational and nonprofit organizations. Our customers include leading enterprises in a diverse set of industries, including telecommunications providers, financial services entities, software, technology and Internet companies, stock exchanges, electrical grid operators, networking vendors, oil and gas companies, healthcare and pharmaceutical companies and leading U.S. and international governmental agencies.

Our business is not dependent on any particular end-customer as no end-customer represented more than 10% of our total revenue for any of the years ended December 31, 2021, 2020 or 2019. For the years ended December 31, 2021 and 2020, one reseller represented 10% of the Company's total revenue, but did not represent 10% or greater of the Company's total revenue for the year ended December 31, 2019.

Backlog

Orders for our subscriptions are typically billed in their entirety shortly after receipt of the order, even when the delivery term for the subscription or service extends over multiple periods. These amounts are included in deferred revenue, although the timing of revenue recognition for subscriptions and services may vary depending on the contractual service period or when services are rendered.

In certain instances, a customer may request periodic billing on a multi-period subscription or service contract or we may not have a contractual right to bill at period end. In these instances, the amount billed is included in deferred revenue and the amount to be billed in the future periods is included in backlog. Subscription and services backlog has historically represented approximately 5% of our deferred revenue. As a result, we do not believe that our backlog at any particular time is meaningful because it does not represent a material component of future revenue in any given period.

We expect that the amount of backlog relative to the total value of our contracts will change from year to year due to several factors, including the amount invoiced early in the contract term, the timing and duration of customer agreements, varying invoicing cycles of agreements and changes in customer financial circumstances. Accordingly, we believe that fluctuations in backlog are not a reliable indicator of future revenues and we do not utilize backlog internally as a key management metric.

Sales and Marketing

Sales. Our sales organization consists of in-house sales teams who work in collaboration with external channel partners to identify new sales prospects, sell additional subscriptions and services, and provide post-sale support. Our field sales team is organized by territory and is responsible for enterprise and government accounts within their region. Our inside sales organization is responsible for sales to medium-sized and smaller organizations, and for renewal of existing subscriptions.

We also have a dedicated team focused on channel sales who manage the relationships with our value-added reseller and distributor partners and work with these channel partners to win and support customers. We believe this hybrid direct/channel sales approach allows us to leverage the benefits of broader market coverage provided by a reseller channel while maintaining a direct connection with many of our customers, including key enterprise and government accounts.

We have also cultivated alliances with non-traditional partners to generate customer referrals and extend our technologies, services and sales coverage to new market segments. These strategic partnerships include relationships with technology companies, insurance providers, large systems integrators, and managed service providers, and we have engaged in joint solution development with leading providers of software engineering services, payment systems, and public cloud platforms.

As part of our sales strategy, we often provide prospective customers with our solutions for a short-term evaluation period, typically ranging from one week to several months. During this period, the prospective customer conducts evaluations with the assistance of our sales engineers and members of our security research team. We believe that by providing proof of value evaluations to potential customers, we are able to demonstrate the effectiveness of our solutions by identifying suspicious and potentially malicious content in their actual IT environments.

As part of our strategy to increase adoption of our Mandiant Advantage platform and modules, we offer free access to publicly available threat intelligence enhanced with Mandiant threat scoring and other contextual information. The availability of additional information and features included with a paid subscription is shown to users within the platform to encourage paid upgrades.

Additionally, our Mandiant consultants use our validation and ASM solutions in their incident response and security consulting engagements, providing de facto proof of value evaluations in the customer's environment and often resulting in follow-on sales of our solutions.

Our sales cycle varies by industry and can be long and unpredictable, but is typical of large, complex enterprise sales cycles that can last several months or more. However, some transactions can close in a few weeks when an active breach is discovered.

Our sales organization is supported by sales engineers with deep technical domain expertise who are responsible for pre-sales technical support, solutions engineering for our customers, proof of value work and technical training for our channel partners. Our sales engineers also act as the liaison between customers and our marketing and product development organizations. Our Customer Success organization is focused on improving our customers' post-sales experience to increase customer satisfaction, retention and cross-selling.

Marketing. Our marketing is focused on fostering our thought leadership in cybersecurity, building our brand reputation and market awareness for our solutions, driving customer demand and a strong sales pipeline, and working with our channel and technology alliance partners around the globe. Our marketing team consists primarily of corporate marketing, product marketing, channel marketing, account/lead development, marketing operations, and corporate communications.

Marketing activities include demand generation, advertising, product pricing and launch activities, managing our corporate website and partner portal, trade shows and conferences, press and analyst relations, and customer awareness. We are also actively engaged in driving global thought leadership programs through blogs, media appearances, and social media and developing rich digital content such as our annual M-Trends report, our Vision digital magazine, and our webinars, podcasts and threat reports.

Technology Alliance Partners

Mandiant has built a robust ecosystem of technology alliance partners that extends the breadth and depth of our solutions. Spanning multiple technology categories, including network monitoring vendors, security information and event management vendors, network equipment vendors, forensic software vendors, web application firewall vendors, cloud platform providers, and more. These partnerships provide for threat intelligence sharing, cross-vendor technology integrations, joint go-to-market efforts and solution development collaborations.

Our technology alliances accelerate the time to realize value from Mandiant solutions and help ease the complexity organizations face implementing and managing multi-layered, multi-vendor security solutions.

Government Affairs

We maintain relationships with governments around the globe, both as a cybersecurity solutions provider and a trusted advisor. Our visibility into the threat landscape, knowledge of threat actors' activities, and thought leadership in defending against cyber threats has helped to shape legislative, regulatory, and policy frameworks to enhance governments' individual and collective cyber posture. As part of this effort, we contribute to the evolving standard-making processes, help define best practices in various jurisdictions, and help organizations of all sizes and at all levels of government better understand the cyber threat landscape. We also help governments identify future needs and requirements and consider actionable policy recommendations to address critical cybersecurity challenges, from establishing international norms in cyberspace to defending critical infrastructure. Through these and related activities, we engage on the front lines of emerging cybersecurity-related public policy and use our knowledge and insight to improve the cybersecurity of our government and industry customers.

Research and Development

We invest substantial resources in research and development to develop new solutions, enhance our detection, analysis and correlation engines, expand our threat intelligence, build add-on functionality to our solutions, and improve our core technologies. We believe that adapting our software and cloud-based technologies to changes in the threat environment is critical to maintaining and expanding our leadership in the cybersecurity industry. We have prioritized investments in higher growth opportunities, including security validation, automated extended detection and response, and machine learning capabilities to provide threat intelligence, security effectiveness testing, unified reporting, and automated response features to customers in the Mandiant Advantage platform.

Our engineering teams have deep security and data management expertise and work closely with our customers and our Mandiant consultants to identify current and future needs. Our Mandiant consultants use our solutions in their incident response and security assessment engagements and provide continual feedback to our engineering, solutions management and marketing teams on solutions performance, detection efficacy, evasion techniques and attack trends. This continuous feedback mechanism allows us to adapt our SaaS solutions as the threat environment evolves.

In addition to our focus on platform development and enhancement, our research and development teams are focused on developing automation technologies using artificial intelligence and machine learning techniques to create learning systems that adapt to changes in the threat environment and generate efficiencies across our solutions and services offerings.

We maintain research and development activities across the globe with teams located in India, Ireland, Singapore and the United States.

Competition

We operate in the intensely competitive IT security market which is characterized by constant change and innovation. Changes in the threat landscape and broader IT infrastructures result in evolving customer requirements for cybersecurity. Several vendors have either introduced new products or incorporated features into existing products that compete with our solutions. Our current and potential future competitors fall into five general categories:

- large companies such as IBM, Oracle and HPE that have acquired security solutions and have the technical and financial resources to bring competitive solutions to the market;
- independent security vendors such as Palo Alto Networks, Proofpoint and CrowdStrike that offer products or features that claim to perform similar functions to our platform;
- small and large companies, including new market entrants, that offer niche security solutions that compete with some of the features present in our solutions;
- providers of managed security services, such as CrowdStrike, Arctic Wolf; and

- Rapid7 and other providers of MDR and security consulting services, including incident response and compromise assessment services.

As our market grows and a larger share of IT budgets is allocated to cybersecurity, it will attract more highly specialized vendors as well as larger technology vendors that may continue to acquire or bundle their products more effectively. The principal competitive factors in our market include:

- breadth and richness of the threat intelligence, including dynamic and contextual threat intelligence on cyber crime, cyber espionage, hacktivism, attacks on critical infrastructure and nation-state attacks;
- the ability to operationalize a combination of technology, intelligence and expertise necessary to enable organizations to combat the current threat landscape and rapidly adapt to changes;
- the ability to integrate with third-party IT and security providers to provide visibility, prioritization of threats, and automate security processes across on-premise, remote, cloud, hybrid and critical infrastructure environments;
- the ability to measure, manage and communicate the effectiveness of security controls against relevant attacks;
- the availability of security expertise to augment internal resources with managed services, training, and on-demand consulting;
- the ability to consolidate features onto a single platform, thereby reducing the complexity of maintaining solutions from multiple vendors;
- ability to detect and prevent known and unknown threats using machine-learning, behavioral analysis, and other techniques, combined with the latest threat intelligence;
- flexible deployment options, including cloud-based software expert-assisted capabilities, and fully managed options;
- scalability, throughput and overall performance of our detection and prevention technologies;
- brand awareness and reputation;
- strength and effectiveness of sales and marketing efforts;
- ease of use and customer experience; and
- price and total cost of ownership.

We believe we compete favorably with our competitors on the basis of these factors as a result of our intelligence and expertise from the frontlines, as well as the features and performance of our solutions, the ease of integration of our solutions in diverse IT environments, the breadth of our services, the integration of our SaaS solution offerings in our platform, the measurement and reporting capabilities of our validation technologies, and the reputation of our Mandiant consulting organization. However, many of our competitors have substantially greater financial, technical and other resources, greater name recognition, larger sales and marketing budgets, deeper customer relationships, broader distribution, and larger and more mature intellectual property portfolios.

Intellectual Property

Our success depends in part upon our ability to protect our core technologies and intellectual property. We rely on, among other things, patents, trademarks, copyrights, database rights and trade secret laws, confidentiality safeguards and procedures, and employee non-disclosure and invention assignment agreements to protect our intellectual property rights. We file patent applications to protect our intellectual property and believe that the duration of our issued patents is sufficient when considering the expected lives of our products. We cannot assure you whether any of our patent applications will result in the issuance of a patent or whether the examination process will result in patents of valuable breadth or applicability. In addition, any patents that may be issued may be contested, circumvented, found unenforceable or invalidated, and we may not be able to prevent third parties from infringing them. We also license software from third parties for integration into our products, including open source software and other software available on commercially reasonable terms.

We control access to and use of our proprietary software, technology and other proprietary information through the use of internal and external controls, including contractual protections with employees, contractors, end-customers and partners, and our software is protected by U.S. and international copyright, patent and trade secret laws. Despite our efforts to protect our software, technology and other proprietary information, unauthorized parties may still copy or otherwise obtain and use our software, technology and other proprietary information. In addition, we intend to expand our international operations, and effective patent, copyright, trademark, and trade secret protection may not be available or may be limited in foreign countries.

Our industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. If we become more successful, we believe that competitors will be more likely to try to develop products that are similar to ours and that may infringe our proprietary rights. It may also be more likely that competitors or other third parties will claim that our products infringe their proprietary rights. In particular, large and established companies in the cybersecurity industry have extensive patent portfolios and are regularly involved in both offensive and defensive litigation. From time-to-time, third parties, including certain of these large companies and non-practicing entities, may assert patent, copyright, trademark, and other intellectual property rights against us, our channel partners, our cloud platform providers, or our end-customers, whom our standard license and other agreements obligate us to indemnify against such claims. Successful claims of infringement by a third party, if any, could prevent us from distributing certain products or performing certain services, require us to expend time and money to develop non-infringing solutions, or force us to pay substantial damages (including, in the United States, treble damages if we are found to have willfully infringed patents), royalties or other fees. We cannot assure you that we do not currently infringe, or that we will not in the future infringe, upon any third-party patents or other proprietary rights. See “Risk Factors— Risks Related to Intellectual Property and Technology Licensing— Claims by others that we infringe their proprietary technology or other rights could harm our business” for additional information.

Business Seasonality

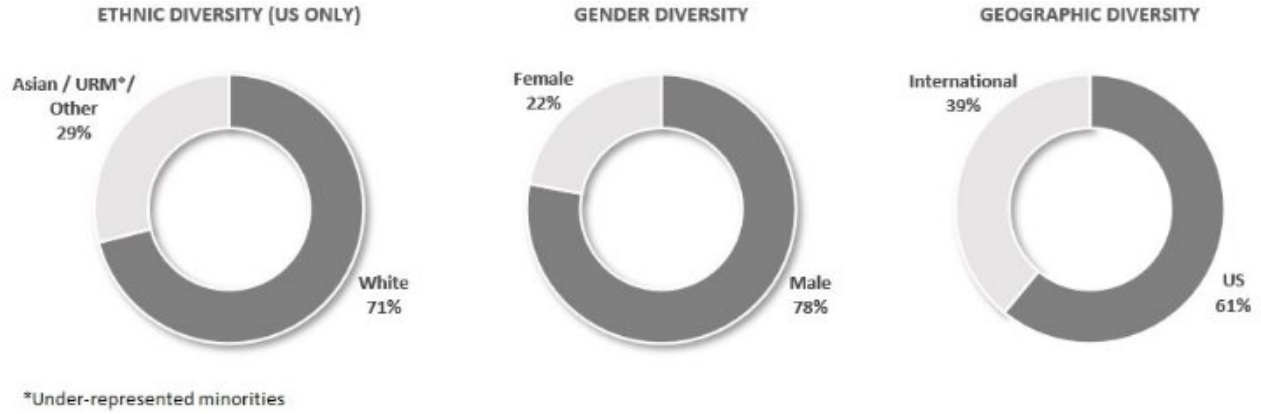
For discussion of seasonal trends, see our quarterly results of operations discussion within "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Part II, Item 7 of this Annual Report on Form 10-K.

Employees and Human Capital Management

We believe our ability to attract, engage and retain talent is necessary to drive achievement of our business objectives and ultimately realize our mission and vision. Doing the right thing for our customers and employees is a core value of our culture that we believe creates value for our shareholders. There are many things that define the culture of an organization – heritage, reputation, attitude, approach to execution, work ethic, and, most importantly, people. We seek out employees with qualities that facilitate high-quality results – those traits that give personal meaning to work and elevate our customers’ experiences. We believe that employees who feel appreciated create more satisfied customers, and we focus on improving and elevating our employees’ experiences at work. This means we are committed to providing a sense of belonging across our company that inspires everyone to respectfully speak-up, contribute their ideas, take action and be accountable. Our fundamental employee experience philosophies are:

- We emphasize our ONE TEAM culture of respect and inclusiveness.
- We make recognition an integral part of our culture.
- We care about our employees and their overall well-being.
- We reward extraordinary performance and results.

Employee demographics. As of December 31, 2021, we had approximately 2,335 employees, reflecting a global diversity of identity, background and experience.



Diversity, inclusion and belonging. We believe that diverse teams maximize their potential and bring with them diverse views, experiences and perspectives. We seek to integrate diversity and inclusion into the employee lifecycle, and are committed to providing a work environment that is free of discrimination and harassment, where our employees can do their best work, bring their full self to work, feel supported and in turn support others. We strive to create a working environment where everyone feels included and respected and has an equal opportunity to contribute and to maximize their potential. We have established a framework to drive diverse representation and inclusive behaviors across our company that includes actions to ensure equality of opportunity, increase

diversity in our employee base, promote equality of pay across gender and ethnicity, and provide anti-bias training and education. We also seek to promote diversity and inclusion in our communities by supporting organizations that champion diversity and inclusion initiatives. In addition, we continue to invest in Mandiant-sponsored programs such as Elevate, which offers training, mentoring and other resources to women leaders in cybersecurity, and partnerships with military and veterans organizations.

Compensation and benefits. We are committed to providing employees and their families with benefits packages that support physical, mental and financial well-being. Our intent is that any benefit plans offered by Mandiant worldwide are regionally appropriate and competitive with other high-tech companies. In addition to the foundational rewards like competitive pay and benefits, we provide cash incentives, equity-based compensation and employee stock purchase programs where possible, generous paid time-off, including paid parental leave, professional development opportunities, and many other employee perks. We constantly review our pay practices and benefits to ensure we can hire the best employees possible. We also believe that equal pay is important to further advance diversity, inclusion and belonging in the workplace. In addition, we conduct an internal pay equity review each year which currently encompasses compensation analysis across gender globally as well as race and ethnicity categories in the U.S.

Our response to COVID-19. As part of our efforts to keep our employees safe and support efforts to slow the spread of COVID-19, we instituted COVID-19 safety plans, work-from-home and return-to-office policies, and we restricted travel to essential, "business-critical" needs. With the support and commitment of our employees, we were able to seamlessly pivot to a work-from-home model and continue protecting our customers without interruption. We believe open and on-going communications have been critical to maintaining our culture and productivity during the pandemic, and we hosted weekly update calls and created an internal website designed for this purpose. We also instituted multiple measures to maintain the health and well-being of our employees, while continuing to deliver our essential cybersecurity solutions to customers around the world. Specific measures included regular employee surveys to assess employee attitudes toward work location, "self-care days" to enable rest, volunteering, or family time, online training, wellness and support programs, and a stipend to office-based employees to assist in the functional set-up of their remote working environment. Our Pandemic Response Team continues to monitor conditions and mandates globally to ensure safe practices as the pandemic evolves.

Professional development and training. We believe that a culture that encourages continued learning and development creates an environment where great people want to work and contribute their best efforts. We also believe that great leadership is how organizations endure and excel. To help our leaders, individual contributors and teams reach their full potential, we offer extensive training and career development resources internally through our Learning and Development organization. These include leadership, soft skills, and technical training, coaching, and development consulting via traditional and non-traditional learning events, as well as free access to online learning platforms such as LinkedIn Learning. We also offer tuition reimbursement program for employees who wish to further their formal education. To reinforce our corporate culture of respect, diversity and inclusion, each employee is required to complete anti-harassment and privacy awareness training annually. In addition, we offer employees a course on Breaking Bias: The Neuroscience of Diversity, Inclusion and Belonging, to build awareness of cognitive bias and how it impacts day-to-day interactions, people, business and life decisions. We also implemented additional training resources to support our diversity, inclusion and belonging programs in 2021.

Communication and engagement. We strongly believe that our culture depends on our employees' engagement and understanding of their contribution to the achievement of our strategic imperatives, vision and mission. Communicating powerfully and prolifically is a core competency in our ONE TEAM framework, and our senior leaders communicate regularly through a variety of channels, including quarterly all-hands meetings that are broadcast globally, weekly CEO updates, a monthly newsletter and regular "Mandiant on a Mission" updates. We also enabled Yammer, the community and social interaction tool available in Office365, company-wide to address the need for more social and community interaction in our globally diverse workforce. We have many active Yammer communities, including communities hosted by our employee resource groups Valor, Pride, and BOLD: Black Organization for Leadership and Development. In addition to prioritizing regular communications, we conduct regular employee surveys to seek feedback on what is going well and where we can focus our efforts to do more. Our annual company survey continues to surpass 80 percent participation rate each year, representing a wide cross segment of our employee population.

Item 1A. Risk Factors

Our operations and financial results are subject to various risks and uncertainties including those described below. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, also may become important factors that affect us. If any of the following risks or others not specified below materialize, our business, financial condition and results of operations could be materially adversely affected. In that case, the trading price of our common stock could decline.

Summary

- *If we are unsuccessful at executing our business plan and necessary transition activities following the sale of the FireEye Products business, our business and results of operations may be adversely affected and our ability to invest in and grow our business could be limited.*
- *We may not achieve the intended benefits of the sale of the FireEye Products business.*
- *If the IT security market does not continue to adopt our security solutions, our sales will not grow as quickly as anticipated, or at all, and our business, results of operations and financial condition would be harmed.*
- *We have had operating losses each year since our inception, and may not achieve or maintain profitability in the future.*
- *We face intense competition and could lose market share to our competitors, which could adversely affect our business, financial condition and results of operations.*
- *Real or perceived defects, errors or vulnerabilities in our solutions or services, the misconfiguration of our solutions, the failure of our solutions or services to detect or respond to a security breach or incident, or the failure of customers to take action on attacks identified by our solutions could harm our reputation and adversely impact our business, financial position and results of operations.*
- *Our results of operations may vary significantly from period to period, which could cause the trading price of our common stock to decline or fluctuate materially.*
- *If we are unable to retain our customers, renew and expand our relationships with them, and add new customers, we may not be able to sustain revenue growth and we may not achieve or maintain profitability in the future.*
- *Our ability to manage our business and monitor results is highly dependent upon IT systems. A failure of these systems or our planned QTC and ERP implementations could have a material adverse effect on our business.*
- *The implementation of our planned new ERP and change in related processes could negatively impact the effectiveness of our internal control over financial reporting.*
- *We have experienced network or data security incidents in the past, and we may experience additional network or data security incidents in the future, which, whether actual, alleged or perceived, may harm our reputation, create liability and adversely impact our financial results.*
- *If securities or industry analysts do not publish research or reports about our business, or publish inaccurate or unfavorable research reports about our business, our share price and trading volume could decline.*
- *The price of our common stock has been and may continue to be volatile, and the value of your investment could decline.*
- *Sales of substantial amounts of our common stock in the public markets, or sales of our common stock by our executive officers and directors under Rule 10b5-1 plans, could adversely affect the market price of our common stock.*

Risks Related to the Sale of the FireEye Products Business

If we are unsuccessful at executing our business plan and necessary transition activities following the sale of the FireEye Products business, our business and results of operations may be adversely affected and our ability to invest in and grow our business could be limited.

On October 8, 2021, we completed the sale of the FireEye Products business to Magenta Buyer LLC (“Trellix”), which is backed by a consortium led by Symphony Technology Group. This and other operational transitions have involved turnover in management and other key personnel and changes in our strategic direction. Transitions of this type can be disruptive, result in the loss of focus and diminished employee morale and make the execution of business strategies more difficult. We also paid one-time separation costs, a portion of which was paid with proceeds from the transaction. We have also entered into a transition services agreement (the "TSA") under which we currently provide assistance to Trellix including, but not limited to, business support services and IT services that have historically been provided to the FireEye Products business. We may experience delays in the anticipated timing of activities related to such transitions and higher than expected or unanticipated execution costs. If we do not succeed in executing on these transition activities while achieving our cost optimization goals, or if these efforts are more costly or time-consuming than expected, our business and results of operations may be adversely affected, which could limit our ability to invest in and grow our business.

Even if we are successful at executing the transition of the FireEye Products business, the divestiture may not enhance long-term stockholder value as anticipated.

The TSA has an initial term of 12 months and may be extended by Trellix for up to two three-month extensions. Trellix may also terminate any or all services delivered pursuant to the TSA upon written notice, with such termination becoming effective the last day of the month following delivery of such notice. The TSA provides that Trellix will pay us a variable fee each month based on the specific services we have provided to it in the previous month. Once services terminate under the TSA, we will not receive the associated fees for providing services and our level of staffing and cost structure may no longer be appropriate for our business needs at that time. If we are not successful at optimizing our costs in performing the services under the TSA, or if we fail to effectively prepare for and manage the effect of the termination of services under the TSA, our business and results of operations may be adversely affected and our ability to invest in and grow our business could be limited.

We may not achieve the intended benefits of the sale of the FireEye Products business.

We may not realize some or all of the anticipated benefits from the sale of the FireEye Products business. The constraints on our business imposed by the divestiture, including the resources required to focus on completing the divestiture and the limitations created by the sale of certain assets we have historically used in our business, a non-compete, bilateral commercial agreements and the loss of employees, could have a continuing impact on the execution of our business strategy and our overall operating results. Further, our remaining employees may become concerned about the future of our remaining operations and lose focus or seek other employment.

We may not realize some or all of the anticipated benefits from the divestiture with respect to the anticipated performance in our remaining business and the divestiture may in fact adversely affect our business. Our ability to realize the anticipated benefits of the divestiture will depend, to a large extent, on our ability to successfully operate the remaining business as a standalone business and to grow and develop the remaining business in the absence of the divested business. For example, the transfer from us to Trellix of sales personnel that had been responsible for selling both FireEye products and our solutions, as well as any reduction in cross-selling opportunities with customers of FireEye products, could make it more difficult for us to grow our business. In addition, some of the anticipated benefits may not occur for a significant time period following the completion of the divestiture. If our strategy is not successful and does not achieve our expectations over the long term, our business and results of operations may be adversely affected and the price of our common stock could decline.

Our future results of operations are dependent solely on the operations of the Mandiant Solutions business and will differ materially from our previous results.

The FireEye Products business generated approximately 53% of our aggregate revenue from continuing and discontinued operations for the first three quarters of fiscal 2021, approximately 58% of our aggregate revenue from continuing and discontinued operations for fiscal 2020, and approximately 63% of our aggregate revenue from continuing and discontinued operations for fiscal 2019. Accordingly, our future financial results will differ materially from our previous results since our future financial results will be dependent solely on our Mandiant Solutions business. Any downturn in our Mandiant Solutions business could have a material adverse effect on our future operating results and financial condition and could materially and adversely affect the trading price of our common stock.

Because we depend in part on FireEye Products and product telemetry data in the operation of our business, disruptions in the availability of such products or product telemetry data could negatively impact our ability to operate our business and provide services to our customers.

Following the divestiture of the FireEye Products business, we continue to use and depend in part on FireEye Products and product telemetry data from FireEye Products in the operation of our Mandiant Solutions business. For example, in providing incident response services, we typically use a variety of FireEye Products as part of the investigation and remediation, and we use FireEye Product data for threat research, threat hunting and generating derivative content for our offerings such as Mandiant Security Validation. We have entered into a market cooperation and reseller agreement with Trellix to, among other things, purchase FireEye Products for our continued use in our consulting business. We have also entered into a strategic collaboration agreement with Trellix that allows us to, among other things, purchase telemetry data from FireEye Products until October 2024. However, there is an inherent risk that there could be a disruption in the availability of FireEye Products from Trellix or in the sharing of product telemetry data by Trellix, due to any number of events, including but not limited to supply chain disruptions, natural disasters or other events outside of the control of Trellix. Any such disruptions in the availability of such products or product telemetry data could negatively impact our ability to operate our business and provide services to our customers in the same manner as before our divestiture of the FireEye Products business, which could harm our reputation and adversely impact our business, financial position and results of operations.

Risks Related to Our Business and Our Industry

If the IT security market does not continue to adopt our security solutions, our sales will not grow as quickly as anticipated, or at all, and our business, results of operations and financial condition would be harmed.

Our future success depends on market adoption of our unique approach to IT security, which combines our technology, threat intelligence and security expertise in solutions that measure security effectiveness, investigate and respond to breaches and enable customers to adapt to changes in the threat environment. We are seeking to disrupt the IT security market with our security solutions. Our solutions interoperate with, but do not replace, other IT security solutions. Enterprises and governments may be hesitant to purchase our security solutions if they believe their existing solutions provide a level of IT security that is sufficient to meet their needs. Currently, many enterprises and governments have not allocated a fixed portion of their budgets to standalone threat intelligence or solutions that evaluate security effectiveness. As a result, to expand our customer base, we need to convince potential customers to allocate a portion of their discretionary budgets to purchase our technology, threat intelligence and expertise. However, even if we are successful in doing so, any future deterioration in general economic conditions, including as a result of the COVID-19 pandemic, may cause our customers to cut their overall IT spending, and such cuts may fall disproportionately on solutions like ours. If we do not succeed in convincing customers that our solutions should be an integral part of their overall approach to IT security and that a fixed portion of their annual IT budgets should be allocated to our solutions, our sales will not grow as quickly as anticipated, or at all, which would have an adverse impact on our business, results of operations and financial condition.

Even if there is significant demand for security solutions like ours, if our competitors include functionality that is, or is perceived to be, better than or equivalent to that of our solutions, we may have difficulty increasing the market penetration of our solutions. Furthermore, even if the functionality offered by other IT security providers is different and more limited than the functionality of our solutions, organizations may elect to accept such limited functionality in lieu of adding solutions and services from additional vendors like us, especially if competitor offerings are free or available at a lower cost.

In addition, changes in customer requirements could reduce customer demand for our security solutions. For example, if one or more governments share, on a free or nearly free basis, threat intelligence with other governmental agencies or organizations, such as critical infrastructure companies, then those agencies or organizations might have less demand for additional threat intelligence and may purchase less of our standalone threat intelligence offerings.

If enterprises and governments do not continue to adopt our security solutions for any of the reasons discussed above or for other reasons not contemplated, our sales would not grow as quickly as anticipated, or at all, and our business, results of operations and financial condition would be harmed.

We have had operating losses each year since our inception, and may not achieve or maintain profitability in the future.

We have incurred operating losses each year since our inception, including net losses of $412.1 million, $349.3 million and $362.9 million during the years ended December 31, 2021, 2020 and 2019, respectively, relating to our Mandiant Solutions business. Any failure to increase our revenue and manage our cost structure as we grow our business could prevent us from achieving or, if achieved, maintaining profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. If we are unable to become and remain profitable, the value of our company could decrease and our ability to raise capital, maintain our research and development efforts, and expand our business could be negatively impacted.

We face intense competition and could lose market share to our competitors, which could adversely affect our business, financial condition and results of operations.

The market for security solutions and services is intensely competitive and characterized by rapid changes in technology, customer requirements, industry standards, threat vectors and frequent new product introductions and improvements. We anticipate continued challenges from current competitors, which in many cases are more established and enjoy greater resources than us, as well as by new entrants into the industry. If we are unable to anticipate or effectively react to these competitive challenges, our competitive position could weaken, and we could experience a decline in our growth rate or revenue that could adversely affect our business and results of operations.

Our current competitors include large cybersecurity vendors such as CrowdStrike, Palo Alto Networks and Rapid7 that have multiple offerings similar to ours; large accounting firms that offer incident response and strategic consulting services similar to ours; and other small and large companies that offer solutions or services that compete in some of our markets. Other IT providers offer, and may continue to introduce, security features that compete with our Mandiant Advantage platform and related solutions, either in stand-alone security products or as additional features in their network infrastructure products. Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages such as:

- greater name recognition, longer operating histories and larger customer bases;
- larger sales and marketing budgets and resources;
- broader distribution and established relationships with channel and distribution partners and customers;
- greater customer support resources;
- greater resources to make acquisitions or enter into strategic partnerships;

- lower labor and research and development costs;
- larger and more mature intellectual property portfolios; and
- substantially greater financial, technical and other resources.

In addition, some of our larger competitors have substantially broader offerings and may be able to leverage their relationships with distribution partners and customers based on other products or solutions to gain business in a manner that discourages users from purchasing our solutions, subscriptions and services, including by selling at zero or negative margins, product bundling or offering closed technology platforms. Potential customers may also prefer to purchase from their existing suppliers rather than a new supplier regardless of performance or features of the solutions. Furthermore, with the completion of our sale of the FireEye Products business, organizations that purchased both Mandiant Solutions offerings and FireEye Products offerings may decide to not continue purchasing Mandiant Solutions offerings if they desire to limit their number of existing suppliers for cybersecurity offerings. As a result, even if the features of our platform are superior, customers may not purchase our solutions. In addition, new innovative start-up companies, and larger companies that are making significant investments in research and development, may invent similar or superior solutions and technologies that compete with our platform. Our current and potential competitors may also establish cooperative relationships among themselves or with third parties that may further enhance their resources. Further, as our customers refresh the security solutions bought in prior years, they may seek to consolidate vendors, which may result in current customers choosing to purchase solutions from our competitors instead of from us.

Some of our competitors have made or could make acquisitions of businesses that allow them to offer more competitive and comprehensive solutions. As a result of such acquisitions, our current or potential competitors may accelerate the adoption of new technologies that better address end-customer needs, devote greater resources to bring these products and services to market, initiate or withstand substantial price competition, or develop and expand their product and service offerings more quickly than we do. These competitive pressures in our market or our failure to compete effectively may result in price reductions, fewer orders, reduced revenue and gross margins, and loss of market share.

If we are unable to compete successfully, or if competing successfully requires us to take costly actions in response to the actions of our competitors or behavior of our existing customers, our business, financial condition and results of operations could be adversely affected.

Real or perceived defects, errors or vulnerabilities in our solutions or services, the misconfiguration of our solutions, the failure of our solutions or services to detect or respond to a security breach or incident, or the failure of customers to take action on attacks identified by our solutions could harm our reputation and adversely impact our business, financial position and results of operations.

Because our solutions and services are complex, they have contained and may contain design defects or errors that are not detected until after their deployment. Our solutions also provide our customers with the ability to customize a multitude of settings, and it is possible that a customer could misconfigure our solutions or otherwise fail to configure our solutions in an optimal manner. Such defects and misconfigurations of our solutions could cause our solutions or services to be vulnerable to security attacks, or cause them to fail to respond to threats. In addition, because the techniques used by computer hackers to access or sabotage networks change frequently and generally are not recognized until launched against a target, there is a risk that an advanced attack could emerge that our solutions and services are unable to detect. Moreover, as our solutions and services are adopted by an increasing number of enterprises and governments, it is possible that the individuals and organizations behind advanced malware attacks will focus on finding ways to defeat our solutions and services. If this happens, our networks, solutions, services and subscriptions could be targeted by attacks specifically designed to disrupt our business and undermine the perception that our solutions and services are capable of providing superior IT security, which, in turn, could have a serious impact on our reputation as a provider of security solutions. For example, in the fourth quarter of 2020, we experienced an attack from a highly sophisticated threat actor which gained access to our networks and systems via trojanized updates to SolarWinds' Orion IT monitoring and management software as further described below. Moreover, our solutions must interoperate with our customers' existing infrastructure, which often have different specifications, utilize multiple protocol standards, deploy products from multiple vendors, and contain multiple generations of products that have been added over time. As a result, unanticipated failures could occur if a customer deploys our solutions in an untested configuration. Similarly, if we inadvertently update our solutions with an erroneous configuration or untested detection content, invalid detections or downtime could occur. Any of these situations could result in negative publicity to us, damage to our reputation, declining sales, increased expenses and customer relations issues, and therefore adversely impact our business, financial position and results of operations.

If any of our customers becomes infected with malware after using our solutions or services, such customer could be disappointed with our solutions and services, regardless of whether our solutions or services blocked the theft of any of such customer's data or would have blocked such theft if configured properly. Similarly, if our solutions detect attacks against a customer but the customer has not permitted our solutions to block the theft of customer data, customers and the public may erroneously believe that our solutions were not effective. For any security breaches or incidents impacting customers that use our services, such as customers that have hired us to monitor their networks and endpoints through our own or our co-branded security operation centers, breaches impacting those

customers may result in customers and the public believing that our solutions and services failed. Furthermore, if any enterprises or governments that are publicly known to use our solutions or services are the subject of an advanced cyber-attack that becomes publicized, our other current or potential customers may look to our competitors for alternatives to our solutions and services. Real or perceived security breaches of or other security incidents impacting our customers' networks could cause disruption or damage to their networks or other negative consequences and could result in negative publicity to us, damage to our reputation, declining sales, increased expenses and customer relations issues.

In addition, we cannot assure you that any limitation of liability provisions in our customer agreements, contracts with third-party vendors and service providers or other contracts would be enforceable or adequate or would otherwise protect us from any liabilities or damages with respect to any particular claim relating to a security breach or other security-related matter. Furthermore, in the event that a customer suffers a security breach, we could be subject to claims based on a misunderstanding of the scope of our contractual warranties. While our insurance policies include liability coverage for certain of these matters, if we experienced a widespread security breach or other incident that impacted a significant number of our customers to whom we owe indemnity obligations, we could be subject to indemnity claims or other damages that exceed our insurance coverage. We also cannot be certain that our insurance coverage will be adequate for data handling or data security liabilities actually incurred, that insurance will continue to be available to us on economically reasonable terms, or at all, or that any future claim will not be excluded or otherwise be denied coverage by any insurer. 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 adverse effect on our business, including our financial condition, operating results and reputation.

Any real or perceived defects, errors or vulnerabilities in our solutions and services, or any other actual or perceived failure of our solutions and services to detect or respond to an advanced threat, could result in:

- a loss of existing or potential customers or channel partners;
- delayed or lost revenue and harm to our financial condition and results of operations;
- a delay in attaining, or the failure to attain, market acceptance;
- the expenditure of significant financial and solution development resources in efforts to analyze, correct, eliminate, or work around errors or defects, or to address and eliminate vulnerabilities;
- an increase in warranty and other claims, or an increase in the cost of servicing warranty and other claims, either of which would adversely affect our gross margins;
- harm to our reputation or brand; and
- claims and litigation, regulatory inquiries, demands, investigations, enforcement actions, or other proceedings, and other claims and liabilities, all of which may be costly and burdensome and further harm our reputation.

Our results of operations may vary significantly from period to period, which could cause the trading price of our common stock to decline or fluctuate materially.

Our results of operations have varied significantly from period to period, and we expect that our results of operations, including, but not limited to our GAAP and non-GAAP measures, will continue to vary as a result of a number of factors, many of which are outside of our control and may be difficult to predict, including:

- our ability to attract new and retain existing customers or sell additional solutions to our existing customers;
- our ability to successfully execute our business plan and necessary transition activities following the sale of the FireEye Products business;
- changes in our mix of solutions, subscriptions and services sold, including changes in the average contract length for subscriptions and support;
- the timing and success of new platform, subscription or service introductions by us or our competitors;
- real or perceived reductions in the efficacy of our solutions by our customers or in the marketplace;
- budgeting cycles, seasonal buying patterns and purchasing practices of customers;
- the timing of new contracts for our solutions and length of our sales cycles;
- changes in customer, distributor or reseller requirements or market needs;

- changes in the growth rate of the IT security market, particularly the market for solutions that measure security effectiveness, or managed detection and response services;
- any change in the competitive landscape of the IT security market, including consolidation among our customers or competitors and strategic partnerships entered into by and between our competitors;
- deferral of orders from customers in anticipation of new products or product enhancements announced by us or our competitors;
- our ability to successfully and continuously expand our business domestically and internationally;
- reductions in customer retention rates for our subscriptions and support;
- decisions by organizations to purchase IT security solutions from larger, more established security vendors or from their primary IT equipment vendors or IT service providers;
- changes in our pricing policies or those of our competitors;
- any disruption in, or termination of, our relationships with channel partners;
- the timing and costs related to the development or acquisition of technologies or businesses or strategic partnerships;
- the lack of synergy or the inability to realize expected synergies, resulting from acquisitions or strategic partnerships;
- our inability to execute, complete or integrate efficiently any acquisition that we may undertake;
- increased expenses, unforeseen liabilities, or write-downs and any impact on our operating results from any acquisitions we consummate;
- insolvency or credit difficulties confronting our customers, affecting their ability to purchase or pay for our solutions, subscriptions and services;
- the cost and potential outcomes of future litigation, including, without limitation, the lawsuit described under the "Litigation" subheading in Note 12 Commitments and Contingencies contained in the "Notes to Condensed Consolidated Financial Statements" in Part II, Item 8 of this Annual Report on Form 10-K;
- the departure of key employees, including, without limitation, attrition due to vaccine mandates;
- seasonality or cyclical fluctuations in our business;
- political, economic and social instability;
- public health crises, such as the COVID-19 pandemic, and related measures to protect the public health;
- future accounting pronouncements or changes in our accounting policies or practices;
- the amount and timing of operating costs and capital expenditures related to the maintenance and expansion of our business, operations and infrastructure;
- our inability to successfully implement a new quote-to-cash system or a new enterprise resource planning system as planned;
- the amount and timing of costs related to any cost reduction initiatives and the impact of such initiatives; and
- increases or decreases in our revenues and expenses caused by fluctuations in foreign currency exchange rates.

Any of the above factors, individually or in the aggregate, may result in significant fluctuations in our financial and other operating results from period to period. As a result of this variability, our historical results of operations should not be relied upon as an indication of future performance. Moreover, this variability and unpredictability could result in our failure to meet our operating plan or the expectations of investors or analysts for any period. If we fail to meet such expectations for these or other reasons, the market price of our common stock could fall substantially, and we could face costly lawsuits, including securities class action suits.

If we are unable to retain our customers, renew and expand our relationships with them, and add new customers, we may not be able to sustain revenue growth and we may not achieve or maintain profitability in the future.

Although we have experienced rapid growth in the past with respect to our Mandiant Solutions business, we may not continue to grow in the future. Any success that we may experience in the future will depend, in large part, on our ability to, among other things:

- maintain, renew and expand our existing customer base;
- win new customers for our solutions;
- increase revenues from existing customers through increased use of our solutions, subscriptions and services within their organizations;
- improve the capabilities of our solutions and subscriptions through research and development;
- continue to develop our cloud-based solutions;
- maintain the rate at which customers purchase our subscriptions and support;
- continue to successfully expand our business domestically and internationally; and
- successfully compete with other companies.

If we are unable to maintain consistent or increasing revenue growth or if our revenues decline, it may be difficult to achieve and maintain profitability and our business and financial results could be adversely affected. Our revenue for any prior quarterly or annual periods should not be relied upon as any indication of our future revenue or revenue growth.

We could suffer disruptions, outages, defects, and other performance and quality problems with our platform or with the public cloud and internet infrastructure on which it relies.

Our business depends on our Mandiant Advantage platform to be available without disruption. We have experienced, and may in the future experience, disruptions, outages, defects, and other performance and quality problems with our platform. We have also experienced, and may in the future experience, disruptions, outages, defects, and other performance and quality problems with the public cloud and internet infrastructure on which our platform relies. These problems can be caused by a variety of factors, including introductions of new functionality, vulnerabilities and defects in proprietary and open source software, human error or misconduct, natural disasters (such as tornadoes, earthquakes, or fires), capacity constraints, design limitations, or denial of service attacks or other security-related incidents.

Further, if our contractual and other business relationships with our public cloud providers are terminated, suspended, or suffer a material change to which we are unable to adapt, such as the elimination of services or features on which we depend, we could be unable to provide our platform and could experience significant delays and incur additional expense in transitioning customers to a different public cloud provider.

Any disruptions, outages, defects, and other performance and quality problems with our platform or with the public cloud and internet infrastructure on which it relies, or any material change in our contractual and other business relationships with our public cloud providers, could result in reduced use of our platform, increased expenses, including service credit obligations, and harm to our brand and reputation, any of which could have a material adverse effect on our business, financial condition and results of operations.

Recent, past and future acquisitions and investments could disrupt our business and harm our financial condition and operating results.

Our success will depend, in part, on our ability to expand our platform and grow our business in response to changing technologies, customer demands and competitive pressures. In some circumstances, we may decide to do so through the acquisition of complementary businesses and technologies rather than through internal development, including, for example, our acquisitions of Verodin, Inc. (“Verodin”), Respond Software and Intrigue.

The identification of suitable acquisition candidates can be difficult, time-consuming and costly, and we may not be able to successfully complete acquisitions that we target in the future. The risks we face in connection with acquisitions, including our acquisitions of Verodin, Respond Software and Intrigue include:

- diversion of management time and focus from operating our business to addressing acquisition integration challenges;
- our ability to successfully achieve billings and revenue targets of acquired businesses;
- coordination of research and development and sales and marketing functions;
- integration of solution and service offerings;
- retention of key employees from the acquired company;
- changes in relationships with strategic partners as a result of product acquisitions or strategic positioning resulting from the acquisition;

- cultural challenges associated with integrating employees from the acquired company into our organization;
- integration of the acquired company's accounting, management information, human resources and other administrative systems, as well as the acquired operations, technology and rights to our offerings, and any unanticipated expenses related to such integration;
- the need to implement or improve controls, procedures, and policies at a business that prior to the acquisition may have lacked sufficiently effective controls, procedures and policies;
- financial reporting, revenue recognition or other financial or control deficiencies of the acquired company that we don't adequately address and that cause our reported results to be incorrect;
- liability for activities of the acquired company before the acquisition, including intellectual property infringement claims, violations of laws, commercial disputes, tax liabilities and other known and unknown liabilities;
- completing the transaction and achieving or utilizing the anticipated benefits of the acquisition within the expected timeframe, or at all;
- unanticipated write-offs or charges; and
- litigation or other claims in connection with the acquired company, including claims from terminated employees, customers, former stockholders or other third parties which may differ from or be more significant than the risks our business faces.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions and investments could cause us to fail to realize the anticipated benefits of these acquisitions or investments, cause us to incur unanticipated liabilities, and harm our business generally. Future acquisitions could also result in dilutive issuances of equity securities. For example, in May 2019, we issued 8,404,609 shares of common stock in connection with our acquisition of Verodin and in November 2020, we issued 4,931,862 shares of common stock in connection with our acquisition of Respond Software.

There is also a risk that future acquisitions will result in the incurrence of debt, contingent liabilities, amortization expenses, incremental operating expenses or the write-off of goodwill, any of which could harm our financial condition or operating results.

Our growth depends on the development, expansion and success of our partner relationships.

As part of our vision for our business, we are building, and will need to grow and maintain, a partner ecosystem of providers of complementary cybersecurity offerings. Some of our existing and future partners may have offerings that compete with our offerings in certain markets. The relationships we have with our partners, and that our partners have with our customers, provide our customers with enhanced value from our Mandiant Advantage platform. Our future growth will be increasingly dependent on the success of these relationships, and if we are unsuccessful in growing and maintaining these relationships or the types and quality of data supported by or available for consumption on our platform, our business, financial condition and results of operations could be adversely affected.

If we are unable to maintain successful relationships with our channel partners and technology alliance partners, or if our channel partners or technology alliance partners fail to perform, our ability to market, sell and distribute our platform will be limited, and our business, financial position and results of operations will be harmed.

In addition to our direct sales force, we rely on our indirect channel partners to sell and support our platform. We derive a substantial portion of our revenue from sales of our solutions, subscriptions and services through, or with the assistance of, our indirect channel, and we expect that sales through channel partners will continue to be a significant percentage of our revenue. We also partner with our technology alliance partners to design go-to-market strategies that combine our platform with solutions or services provided by our technology alliance partners.

Our agreements with our channel partners and our technology alliance partners are generally non-exclusive, meaning our partners may offer customers solutions from several different companies, including solutions that compete with ours. If our channel partners do not effectively market and sell our platform, choose to use greater efforts to market and sell their own solutions or those of our competitors, or fail to meet the needs of our customers, our ability to grow our business and sell our platform may be adversely affected. Our channel partners and technology alliance partners may cease marketing our platform with limited or no notice and with little or no penalty, and new channel partners require extensive training and may take several months or more to achieve productivity. The loss of a substantial number of our channel partners, our possible inability to replace them, or the failure to recruit additional channel partners could materially and adversely affect our results of operations. In addition, sales by channel partners are more likely than direct sales to involve collectability concerns, particularly in developing markets. Our channel partner structure could also subject us to lawsuits or reputational harm if, for example, a channel partner misrepresents the functionality of our platform to customers or violates applicable laws or our corporate policies.

Our ability to achieve revenue growth in the future will depend in part on our success in maintaining successful relationships with our channel partners, and in training our channel partners to independently sell and deploy our platform. If we are unable to maintain our relationships with these channel partners or otherwise develop and expand our indirect sales channel, or if our channel partners fail to perform, our business, financial position and results of operations could be adversely affected.

If we fail to effectively manage our growth, our business, financial condition and results of operations would be harmed.

Although our Mandiant Solutions business has experienced significant growth in the past, we cannot provide any assurance that it will continue to grow at the same rate or at all. There is no assurance that we will be able to successfully implement or scale improvements to our systems, processes and controls in a manner that keeps pace with our growth or that such systems, processes and controls will be effective in preventing or detecting errors, omissions or fraud.

As part of our efforts to improve our internal systems, processes and controls, we have licensed technology from third parties. The support services available for such third-party technology are outside of our control and may be negatively affected by consolidation in the software industry. In addition, if we do not receive adequate support for the software underlying our systems, processes and controls, our ability to provide solutions and services to our customers in a timely manner may be impaired, which may cause us to lose customers, limit us to smaller deployments of our platform or increase our technical support costs.

Many of our expenses are relatively fixed, at least in the short term. If our projections or assumptions on which we base our projections are incorrect, we may not be able to adjust our expenses rapidly enough to avoid an adverse impact on our profitability or cash flows.

To manage this growth effectively, we must continue to improve our operational, financial and management systems and controls by, among other things:

- effectively hiring, training and integrating new employees, particularly members of our sales, services and management teams;
- further improving our key business applications, processes and IT infrastructure, including our data centers, a new quote-to-cash system and a new enterprise resource planning system, to support our business needs;
- continuing to refine our ability to forecast our bookings, billings, revenues, expenses and cash flows;
- enhancing our information and communication systems to ensure that our employees and offices around the world are well coordinated and can effectively communicate with each other and our growing base of channel partners and customers;
- improving our internal control over financial reporting and disclosure controls and procedures to ensure timely and accurate reporting of our operational and financial results; and
- appropriately documenting and testing our IT systems and business processes.

These and other improvements in our systems and controls will require significant capital expenditures and the allocation of valuable management and employee resources. If we fail to implement these improvements effectively, our ability to manage our expected growth, ensure uninterrupted operation of key business systems and comply with the rules and regulations applicable to public reporting companies would be impaired, and our business, financial condition and results of operations would be harmed.

If the general level of advanced cyber-attacks declines, or is perceived by our current or potential customers to have declined, our business could be harmed.

Our business is substantially dependent on enterprises and governments recognizing that advanced cyber-attacks are pervasive and are not effectively prevented by legacy security solutions. High visibility attacks on prominent enterprises and governments have increased market awareness of the problem of advanced cyber-attacks and help to provide an impetus for enterprises and governments to devote resources to protecting against advanced cyber-attacks, such as testing our Mandiant Advantage platform, purchasing it, and broadly deploying it within their organizations. If advanced cyber-attacks were to decline, or enterprises or governments perceived that the general level of advanced cyber-attacks have declined, our ability to attract new customers and expand our offerings within existing customers could be materially and adversely affected. A change in the threat landscape may reduce the demand from customers or prospects for our solutions, and therefore could increase our sales cycles and harm our business, results of operations and financial condition.

If organizations do not adopt cloud-based SaaS-delivered security solutions, our ability to grow our business and results

of operations may be adversely affected.

We believe our future success will depend in large part on the growth, if any, in the market for cloud-based SaaS-delivered security solutions. The use of SaaS solutions to manage and automate security and IT operations is at an early stage and rapidly evolving. As such, it is difficult to predict its potential growth, if any, customer adoption and retention rates, customer demand for our

solutions, or the success of existing competitive solutions. Any expansion in our market depends on a number of factors, including the cost, performance, and perceived value associated with our solutions and those of our competitors. If our solutions do not achieve widespread adoption or there is a reduction in demand for our solutions due to a lack of customer acceptance, technological challenges, competing solutions, concerns relating to privacy, data protection, or cybersecurity, decreases in corporate spending, weakening economic conditions or otherwise, it could result in early terminations, reduced customer retention rates, or decreased revenue, any of which would adversely affect our business, results of operations, and financial results. We do not know whether the trend in adoption of cloud-based SaaS-delivered security solutions we have experienced in the past will continue in the future. Furthermore, if we or other SaaS security providers experience security incidents, loss or disclosure of customer data, disruptions in delivery, or other problems, the market for SaaS solutions as a whole, including our security solutions, may be negatively affected. You should consider our business and prospects in light of the risks and difficulties we encounter in this new and evolving market.

If we are not able to maintain and enhance our Mandiant brand and our reputation as a provider of high-quality security solutions and services, our business and results of operations may be adversely affected.

We believe that maintaining and enhancing our Mandiant brand and our reputation as a provider of high-quality security solutions and services is critical to our relationship with our existing customers, channel partners, and technology alliance partners and our ability to attract new customers and partners. The successful promotion of our Mandiant brand will depend on a number of factors, including our marketing efforts, and ultimately our ability to continue to develop additional high-quality security solutions and our ability to continue to provide services valued by customers. Although we believe it is important for our growth, our brand promotion activities may not be successful or yield increased revenue.

In addition, in October 2021, we rebranded and changed our name from FireEye, Inc. to Mandiant, Inc. Customers, suppliers and partners may be confused by the name change leading to disruptions in our business, and investors may not understand or appreciate our rebranding efforts, which could materially and adversely impact our business, results of operations, financial condition and trading price of our common stock.

We rely on our management team and other key employees and will need additional personnel to grow our business, and the loss of one or more key employees or our inability to hire, integrate, train and retain qualified personnel, including members for our board of directors, could harm our business.

Our future success is substantially dependent on our ability to hire, integrate, train, retain and motivate the members of our management team and other key employees throughout our organization, including key employees obtained through our acquisitions. Competition for highly skilled personnel is intense, especially in the San Francisco Bay Area and the Washington D.C. Area, where we have a substantial presence and need for highly skilled personnel. We may not be successful in hiring or retaining qualified personnel to fulfill our current or future needs, and potential changes in U.S. immigration and work authorization laws and regulations, including those that restrain the flow of technical and professional talent, may make it difficult to renew or obtain visas for highly skilled personnel that we have hired or are actively recruiting. Following the divestiture of the FireEye Products business, we remain highly dependent on the services of Kevin Mandia, our Chief Executive Officer, who is critical to our thought leadership, market presence, reputation, future vision and strategic direction. We are also substantially dependent on the continued service of our existing engineering personnel because of the complexity of our solutions. Engineering personnel and other employees in the technology industry, including the cyber security industry, are increasingly able to work remotely, which in turn increases employee mobility and our risk of unwanted employee attrition. Our competitors and other companies in the technology industry may be successful in recruiting and hiring members of our management team or other key employees, including key employees obtained through our acquisitions, and it may be difficult for us to find suitable replacements on a timely basis, on competitive terms, or at all. Also, to the extent we hire employees from mature public companies with significant financial resources, we may be subject to allegations that such employees have been improperly solicited, or that they have divulged proprietary or other confidential information or that their former employers own such employees' inventions or other work product.

The workforce reductions made in connection with our restructuring plans may adversely affect our ability to attract and retain highly skilled employees. Even if our key personnel are not directly affected by these reductions, the termination of others may have a negative impact on morale and our ability to retain current personnel, as well as our ability to attract qualified new personnel in the future. Furthermore, our vaccination and return-to-office policies related to COVID-19 may also impact the recruitment and retention of key employees.

We made a number of organizational changes over the past year and, from time to time, key personnel leave our company. For example, we recently announced that Frank Verdecanna, our Executive Vice President and Chief Financial Officer, plans to retire in 2022 and that Alexa King stepped down as our Executive Vice President, Corporate and Legal Affairs, General Counsel, and Secretary due to her desire to pursue other opportunities and interests. In addition, in connection with the sale of the FireEye Products business, we experienced employee attrition, including the departure of certain members of senior management. These and other leadership transitions and management changes can be inherently difficult to manage, may cause uncertainty or a disruption to our business, and may increase the likelihood of turnover in other key officers and employees. Our success depends in part on having a successful leadership team. If we cannot effectively manage these and other leadership transitions and management changes, it could make it more difficult to successfully operate our business and pursue our business goals.

In addition, we believe that it is important to establish and maintain a corporate culture that facilitates the maintenance and transfer of institutional knowledge within our organization and also fosters innovation, teamwork, a passion for customers and a focus on execution. Any of our organizational changes may result in a loss of institutional knowledge and cause disruptions to our business. Furthermore, if we are not successful in identifying and recruiting new key employees and integrating them into our organization, and creating effective working relationships among them and our other key employees, such failure could delay or hinder our development of net and enhanced offerings and the achievement of our strategic objectives, which could adversely affect our business, financial condition and results of operations.

Our employees, including our executive officers, work for us on an "at-will" basis, which means they may terminate their employment with us at any time. We do not maintain key person life insurance policies on any of our key employees. If Mr. Mandia or one or more of our other key employees resigns or otherwise ceases to provide us with their service, our business could be harmed.

Any litigation against us could be costly and time-consuming to defend.

From time to time, we are and may become subject to legal proceedings and claims, such as claims brought by our customers in connection with commercial disputes, employment claims made by our current or former employees, intellectual property claims, or securities class actions or other claims related to our sale of the FireEye Products business or any volatility in the trading price of our common stock. For example, on July 13, 2021, an alleged stockholder filed an action against the Company, seeking inspection of certain of books and records pursuant to Section 220 of the Delaware General Corporation Law. On July 26, 2021, the parties filed a stipulation that the Company is not obligated to respond to the complaint at this time. The lawsuit was voluntarily dismissed on November 3, 2021. Also on November 3, 2021, the same alleged stockholder filed another action against the Company and its board of directors, alleging a violation of Delaware General Corporation Law Sec. 271 and breaches of fiduciary duty in connection with our sale of the FireEye Products business. The defendants filed a motion to dismiss on January 14, 2022.

Litigation might result in substantial costs and may divert management's attention and resources, which might seriously harm our business, financial condition, and results of operations. Insurance might not cover such claims, might not provide sufficient payments to cover all the costs to resolve one or more such claims, and might not continue to be available on terms acceptable to us (including premium increases or the imposition of large deductible or co-insurance requirements). A claim brought against us that is uninsured or underinsured could result in unanticipated costs, potentially harming our business, financial position, and results of operations. In addition, we cannot be sure that our existing insurance coverage and coverage for errors and omissions will continue to be available on acceptable terms or that our insurers will not deny coverage as to any future claim.

If we do not accurately anticipate and respond promptly to changes in our customers' security needs or scale our business in a cost-effective manner, our competitive position, prospects and financial condition could be harmed.

The IT security market has grown quickly and is expected to continue to evolve rapidly. We have identified a number of new solutions and enhancements to our Mandiant Advantage platform that we believe are important to our continued success in the IT security market. There can be no assurance that we will be successful in developing and marketing, on a timely basis, such new solutions or enhancements or that our new solutions or enhancements will adequately address the changing needs of the marketplace. Although the market expects rapid introduction of new solutions and enhancements to respond to customer needs, the development of these solutions and enhancements is difficult and the timetable for commercial release and availability is uncertain, as there can be significant time lags between initial beta releases and the commercial availability of new solutions and enhancements. We may experience unanticipated delays in the availability of new solutions and enhancements to our platform and fail to meet customer expectations with respect to the timing of such availability. If we do not quickly respond to the rapidly changing and rigorous needs of our customers by developing, releasing and making available on a timely basis new solutions and enhancements to our platform that can adequately respond to our customers' needs, our competitive position and business prospects will be harmed. Furthermore, from time to time, we or our competitors may announce new solutions with capabilities or technologies that could have the potential to replace or shorten the life cycles of our existing solutions. There can be no assurance that announcements of new solutions will not cause customers to defer purchasing our existing solutions.

Additionally, the process of developing new technology is expensive, complex and uncertain. The success of new solutions and enhancements depends on several factors, including appropriate component costs, timely completion and introduction, differentiation of new solutions and enhancements from those of our competitors and market acceptance. To maintain our competitive position, we must continue to commit significant resources to developing new solutions or enhancements to our Mandiant Advantage platform before knowing whether these investments will be cost-effective or achieve the intended results. There can be no assurance that we will successfully identify new market opportunities, develop and bring new solutions or enhancements to market in a timely manner, or achieve market acceptance of our solutions or that solutions and technologies developed by others will not render our Mandiant Advantage platform obsolete or noncompetitive. If we expend significant resources on researching and developing solutions or enhancements to our platform and such solutions or enhancements are not successful, our business, financial position and results of operations may be adversely affected.

In addition, we provide our cloud-based solutions and services through third-party data center hosting facilities located in the United States and other countries. While we control and have access to our servers and all of the components of our network that are located in our data centers, we do not control the operation of these hosting facilities. We rely on the owners or operators of these

hosting facilities in maintaining the availability of their services, maintenance of their infrastructure, and in providing appropriate backup, disaster recovery and security measures. The owners of the data center hosting facilities have no obligation to renew their agreements with us on commercially reasonable terms, or at all. If we are unable to renew these agreements on commercially reasonable terms, or if one of our data center operators is acquired, we may be required to transfer our servers and other infrastructure to new data center facilities, and we may incur significant costs and possible service interruption in connection with doing so.

Furthermore, we have and will continue to make substantial investments to support growth of our Mandiant Advantage platform. If our cloud-based server costs were to increase, our business, results of operations and financial condition may be adversely affected. In addition, ongoing improvements to cloud infrastructure may be more expensive than we anticipate, and may not yield the expected savings in operating costs or the expected performance benefits. In addition, we may be required to re-invest any cost savings achieved from prior cloud infrastructure improvements in future infrastructure projects to maintain the levels of service required by our customers. We may not be able to maintain or achieve cost savings from our investments, which could harm our financial results.

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

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 solutions and enhancements to our platform is expensive and time consuming, and there is no assurance that such activities will result in significant new marketable solutions 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.

Seasonality may cause fluctuations in our billings.

We believe there are significant seasonal factors that may cause us to record higher billings in some quarters compared with others. We believe this variability is largely due to (i) our customers' budgetary and spending patterns, as many customers spend the unused portions of their discretionary budgets prior to the end of their fiscal years, and (ii) our sales compensation plans, which are typically structured around annual quotas and stair step commission rates. For example, we have historically recorded our highest level of billings in our fourth quarter, which we believe corresponds to the fourth quarter of a majority of our customers. Similarly, we have historically recorded our second-highest level of billings in our third quarter, which corresponds to the fourth quarter of U.S. federal agencies and other customers in the U.S. federal government. Our growth rate over the last couple years may have made seasonal fluctuations more difficult to detect. If our rate of growth slows over time, seasonal or cyclical variations in our operations may become more pronounced, and our business, results of operations and financial position may be adversely affected.

Our operating history and changes to our business model makes it difficult to evaluate our current business and prospects and may increase the risk that we will not be successful.

We were founded in 2004, and we shipped our first commercially successful solution for on-premises network security in 2008. Since then, we have continued to expand our offerings, both organically and through acquisitions, to address changes in the threat environment, evolving customer requirements, and the continued migration of workloads to cloud platforms. On October 8, 2021, we completed the sale of the FireEye Products business. Our future results of operations are now dependent solely on the operations of the Mandiant Solutions business. Acquired solutions within our continuing business include Mandiant Corporation's advanced threat intelligence capabilities and incident response and security consulting services; iSIGHT Security's standalone threat intelligence subscriptions; Verodin's security instrumentation offering; Respond Software's cybersecurity investigation automation technology; and Intrigue's attack surface management offering. The markets for many of our acquired solutions are in the early stages of development and customer adoption remains limited. Additionally, most of our acquired solutions are sold as subscriptions, often to large enterprises or governments, and contract terms may vary significantly. We have encountered and will continue to encounter risks and uncertainties frequently encountered by emerging technology-based companies in developing markets.

If our assumptions regarding these risks and uncertainties are incorrect or change in response to changes in the IT security market, our results of operations and financial results could differ materially from our plans and forecasts. Although we have experienced rapid growth in the past, there is no assurance that such growth will continue. Any success we may experience in the future will depend in large part on our ability to, among other things:

- successfully execute our business plan and necessary transition activities following the sale of the FireEye Products business;
- maintain and expand our customer base and the ways in which customers use our solutions and services;
- expand revenue from existing customers through increased or broader use of our solutions, subscriptions and services within their organizations;
- grow our revenues from software, subscriptions and recent offerings from acquisitions such as Verodin and Respond Software;

- convince customers to allocate a fixed portion of their annual IT budgets to our solutions and services;
- improve the performance and capabilities of our platform through research and development;
- effectively expand our business domestically and internationally; and
- successfully compete with other companies that currently provide, or may in the future provide, solutions like ours that protect against advanced cyber-attacks, measure security effectiveness, or investigate and respond to attacks.

If we are unable to achieve our key objectives, including the objectives listed above, our business and results of operations will be adversely affected and the fair market value of our common stock could decline.

We are exposed to the credit risk of some of our distributors, resellers and customers and to credit exposure in weakened markets, which could result in material losses.

Most of our sales are on an open credit basis. Although we have programs in place that are designed to monitor and mitigate these risks, we cannot assure you these programs will be effective in reducing our credit risks, especially as we expand our business internationally. In addition, the COVID-19 pandemic may negatively affect the ability of our customers, especially in certain industries such as travel, entertainment, food and hospitality, to pay us on a timely basis or at all. If we are unable to adequately control these risks, our business, results of operations and financial condition could be harmed.

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

Our business is subject to regulation by various U.S. federal, state, local and foreign governmental agencies, including agencies responsible for monitoring and enforcing employment and labor laws, workplace safety, consumer protection laws, privacy, data-protection and cybersecurity laws, anti-bribery laws (including the U.S. Foreign Corrupt Practices Act and the U.K. Anti-Bribery Act), import/export controls, federal securities laws and tax laws and regulations. In certain jurisdictions, these regulatory requirements may be more stringent than those in the United States. Noncompliance with applicable regulations or requirements could subject us to investigations, sanctions, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties, injunctions or other collateral consequences. If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, results of operations, and financial condition could be materially adversely affected. In addition, responding to any action will likely result in a significant diversion of management's attention and resources and an increase in professional fees. U.S. regulations surrounding our operating activities in foreign jurisdictions are not always consistent with, and at times are in contravention to, the local regulations or laws in such jurisdictions. Enforcement actions and sanctions could harm our business, reputation, results of operations and financial condition.

If we do not achieve increased tax benefits as a result of our corporate structure, our operating results and financial condition may be negatively impacted.

We generally conduct our international operations through wholly-owned subsidiaries and report our taxable income in various jurisdictions worldwide based upon our business operations in those jurisdictions. In 2019, we reorganized our corporate structure and intercompany relationships to better align our corporate organization with the expansion of our international business activities. Although we anticipate achieving a reduction in our overall effective tax rate in the future as a result of this reorganized corporate structure, we may not realize any benefits. Our intercompany relationships are subject to complex transfer pricing regulations administered by taxing authorities in various jurisdictions. The relevant taxing authorities may disagree with our determinations as to the income and expenses attributable to specific jurisdictions. If such a disagreement were to occur, and our position were not sustained, we could be required to pay additional taxes, interest and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows and lower overall profitability of our operations. In addition, if the intended tax treatment of our reorganized corporate structure is not accepted by the applicable taxing authorities, changes in tax law negatively impact the structure or we do not operate our business consistent with the structure and applicable tax laws and regulations, we may fail to achieve any tax advantages as a result of the reorganized corporate structure, and our future operating results and financial condition may be negatively impacted. In addition, we continue to evaluate our corporate structure in light of current and pending tax legislation, and any changes to our corporate structure may require us to incur additional expenses and may impact our overall effective tax rate.

We could be subject to additional tax liabilities.

We are subject to U.S. federal, state and local income taxes and sales taxes in the United States and foreign income taxes, withholding taxes and transaction taxes in numerous foreign jurisdictions. Significant judgment is required in evaluating our tax positions and our worldwide provision for taxes. 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, corporate income tax rates and the proposed global minimum tax, 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. 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 for which a determination is made.

Our failure to raise additional capital or generate the significant capital necessary to expand our operations and invest in new solutions could reduce our ability to compete and could harm our business.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new solutions and enhancements to our platform, improve our operating infrastructure or acquire complementary businesses and technologies. Accordingly, we may need to engage in equity or debt financings to secure additional funds. If we raise additional equity financing, our stockholders may experience significant dilution of their ownership interests and the per share value of our common stock could decline. Furthermore, if we engage in additional debt financing, the holders of debt would have priority over the holders of common stock, and we may be required to accept terms that restrict our ability to incur additional indebtedness. We may also be required to take other actions that would otherwise be in the interests of the debt holders and force us to maintain specified liquidity or other ratios, any of which could harm our business, results of operations, and financial condition. If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

- develop or enhance our solutions and subscriptions;
- continue to expand our sales and marketing and research and development organizations;
- acquire complementary technologies, solutions or businesses;
- expand operations, in the United States or internationally;
- hire, train and retain employees; or
- respond to competitive pressures or unanticipated working capital requirements.

Our failure to do any of these things could harm our business, financial condition and results of operations.

Risks Related to Systems and the Transition to New Quote-to-Cash and Enterprise Resource Planning Systems

Our ability to manage our business and monitor results is highly dependent upon IT systems. A failure of these systems or our planned QTC and ERP implementations could have a material adverse effect on our business.

We are highly dependent upon a variety of IT systems to operate our business. In order to continue to support our growth and scale as a SaaS company, we are making significant technological upgrades to our information systems. We are in the process of implementing a new quote-to-cash ("QTC") system and a new enterprise resource planning ("ERP") system which we expect to complete in 2022, and are updating processes to perform various functions and improve on the efficiency of our global business. This is a complicated, lengthy and expensive process that will result in a diversion of resources from other operations. Continued execution of the project plan, or a divergence from it, may result in cost overruns, project delays or business interruptions. In addition, divergence from our project plan could negatively impact the timing and/or extent of benefits we expect to achieve from the system and process efficiencies. Failure to properly or adequately address any unaccounted for or unforeseen issues in successfully replacing our legacy systems could negatively impact the company's ability to perform necessary business operations, manage our administrative costs, or perform under the TSA, any of which could adversely affect our reputation, competitive position, business, results of operations and financial condition.

Any disruptions, delays or deficiencies in the design and/or implementation of the new QTC and ERP systems, or in the performance or migration of our legacy systems, particularly any disruptions, delays or deficiencies that impact our operations, could adversely affect our ability to effectively run and manage our business. The implementation of our planned new QTC and ERP systems subjects us to inherent risks associated with migrating from our legacy systems, including, without limitation, our ability to process orders, provide services and customer support, send invoices and track payments, fulfill contractual obligations, fulfill federal, state and local reporting and filing requirements in a timely or accurate manner, or otherwise operate our business. In addition, if any issues with respect to the new systems result in, or contribute to, a delay in our timely reporting of our results of operations for any period or our not filing one or more periodic reports with the SEC on time, the price of our common stock could decline substantially, and we could face costly lawsuits, including securities class actions. Further, as we are dependent upon our ability to gather and promptly transmit accurate information to key decision makers, our business, results of operations and financial condition may be adversely affected if our information systems do not allow us to transmit accurate information, even for a short period of time. Failure to properly or adequately address these issues could negatively impact our ability to perform necessary business operations, which could adversely affect our reputation, competitive position, business, results of operations and financial condition.

In addition, the information systems of companies we acquire may not be sufficient to meet our standards or we may not be able to successfully convert them to provide acceptable information on a timely and cost-effective basis. Furthermore, we must attract and

retain qualified people to operate our systems, expand and improve them, integrate new programs effectively with our existing programs, and convert to new systems efficiently when required. Any disruption to our business due to such issues, or an increase in our costs to cover these issues that is greater than what we have anticipated, could have an adverse effect on our financial results and operations.

The implementation of our planned new ERP and change in related processes could negatively impact the effectiveness of our internal control over financial reporting.

Our ERP system is critical to our ability to accurately maintain books and records, record transactions, provide important information to our management and prepare our consolidated financial statements. The implementation of our planned new ERP system in 2022 will also require the transformation of business and financial processes, and any such changes involves risks, including potential transaction errors, processing inefficiencies and loss of data. If the transition to our planned new ERP system is not successful, and the new system and new processes do not operate as intended, the effectiveness of our internal control over financial reporting could be adversely affected and our ability to assess it adequately could be further impacted. If difficulties in implementing the new ERP system or related processes result in a material weakness in our internal control over financial reporting, a failure to remediate the material weakness could also negatively impact our ability to prepare our future financial statements in conformity with GAAP. If we experience ongoing disruptions with such implementation and/or are unable to remediate any such material weakness, such events could have a material adverse effect on our reputation, competitive position, business, results of operations and financial condition.

Any additional costs, cost overruns and delays with implementation of our new QTC and ERP systems may adversely affect our business and results of operations.

The implementation of our planned new QTC and ERP systems has and will continue to involve substantial expenditures, as well as design, development and implementation activities. Until the new systems are fully implemented, we expect to incur additional selling, general and administrative expenses and capital expenditures to implement and test the systems, and there can be no assurance that issues relating to the systems will not occur or be identified. Our business and results of operations may be adversely affected if we experience operating problems, additional costs, or cost overruns during the QTC and ERP implementation process, or if any of the systems or the related processes changes significantly.

Risks Related to Privacy and Data Protection

We have experienced network or data security incidents in the past, and we may experience additional network or data security incidents in the future, which, whether actual, alleged or perceived, may harm our reputation, create liability and adversely impact our financial results.

Increasingly, companies are subject to a wide variety of attacks on their networks on an ongoing basis. In addition to traditional computer "hackers," malicious code (such as viruses and worms), phishing attempts, ransomware, employee theft or misuse, accidental disclosure, and denial of service attacks, sophisticated nation-state and nation-state supported actors engage in intrusions and attacks (including advanced persistent threat intrusions) and add to the risks to our internal networks, cloud deployed enterprise and customer facing environments and the information they store and process. We also utilize third-party service providers to host, transmit, or otherwise process electronic data in connection with our business activities. We and/or our third-party service providers have faced and may continue to face security threats and attacks from a variety of sources. Our data, corporate systems, third-party systems and security measures have been and may continue to be subject to breaches or intrusions due to the actions of outside parties, employee error, malfeasance, a combination of these, or otherwise, including social engineering and employee and contractor error or malfeasance, and, as a result, an unauthorized party may obtain access to our systems, networks, or data. There have been and may continue to be significant software supply chain attacks, and we cannot guarantee that our or our third-party service providers' systems and networks have not been breached or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our systems and networks or the systems and networks of third parties that support us and our services. Techniques used to sabotage or obtain unauthorized access to systems and networks are constantly evolving and, in some instances, are not identified until or after they are launched against a target, and we may face difficulties or delays in identifying or otherwise responding to any attacks or actual or potential breaches of security. Furthermore, as a well-known provider of security solutions, we may be a more attractive target for such attacks. A breach in our data security or an attack against our service availability, or that of our third-party service providers, could impact our solutions and subscriptions, 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, publicly disclosed, altered, rendered unavailable, lost, or stolen, which could result in a loss of intellectual property or loss of data or its confidentiality, integrity, or availability and subject us to liability and cause us financial harm.

In the fourth quarter of 2020, we experienced an attack from a highly sophisticated threat actor, one whose discipline, operational security, and techniques lead us to believe it was a state-sponsored attack. Like numerous other public and private organizations affected by this attack, the threat actor gained access to our networks and systems via trojanized updates to SolarWinds' Orion IT monitoring and management software. We conducted a comprehensive investigation in coordination with the Federal Bureau of Investigation and other key partners, including Microsoft. Our investigation identified that the attacker targeted and accessed certain

Red Team assessment tools that we use to test our customers' security. These tools mimic the behavior of many cyber-threat actors and enable us to provide essential diagnostic security services to our customers and, if used or publicly disclosed by the threat actor, could be used to conduct additional attacks on us or other organizations. Our investigation also identified that, consistent with a nation-state cyber-espionage effort, the attacker was able to access certain of our internal systems and primarily sought information related to certain government customers. We notified affected customers and government agencies, as we deemed was required or appropriate. We have incurred costs to respond to this attack and may continue to incur costs to remediate and support our efforts to enhance our security measures.

There can be no assurance that we will be successful in preventing security breaches or other security incidents nor that we will be successful in mitigating their effects, despite the implementation of security measures for systems, networks, or data within our control. Similarly, there can be no assurance that our third-party service providers, distributors and other contractors will be successful in protecting our data on their systems or in protecting other systems upon which we may rely. Any actual, alleged or perceived breach of network security in our systems or networks, or any other actual, alleged or perceived data security incident we or our third-party service providers suffer, could result in damage to our reputation, negative publicity, loss of channel partners, customers and sales, loss of competitive advantages over our competitors, increased costs to remedy any problems and otherwise respond to any incident, regulatory investigations and enforcement actions, costly litigation, and other liability. In addition, we 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 breaches and other security incidents, as well as the costs to comply with any notification or other legal obligations resulting from any security incidents. Any of these negative outcomes could result in substantial costs and diversion of resources, distract management and technical personnel, adversely impact the market perception of our solutions and subscriptions and end-customer and investor confidence in our company and could seriously harm our business or operating results.

Although we maintain cyber liability insurance coverage that may cover certain liabilities in connection with security breaches and other security incidents, we cannot be certain our insurance coverage will be adequate for liabilities actually incurred, that insurance will continue to be available to us on commercially reasonable terms (if 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, the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, or denials of coverage, could have a material adverse effect on our business, including our financial condition, results of operations and reputation.

If we fail to adequately protect personal information or other information we process or maintain, our business, financial condition and operating results could be adversely affected.

A wide variety of provincial, state, national, and international laws and regulations apply to the collection, use, retention, protection, disclosure, transfer and other processing of personal data and other information. Evolving and changing definitions of personal data and personal information within the European Union ("EU"), the United States, and elsewhere, especially relating to classification of Internet Protocol addresses, machine identification, location data and other information, may limit or inhibit our ability to operate or expand our business, including limiting technology alliance partners that may involve the sharing of data. Data protection and privacy-related laws and regulations are evolving and may result in ever-increasing regulatory and public scrutiny and escalating levels of enforcement and sanctions.

For example, the EU General Data Protection Regulation ("GDPR"), which became fully effective on May 25, 2018, imposes more stringent data protection requirements than previously effective EU data protection law and provides for penalties for noncompliance of up to the greater of €20 million or four percent of worldwide annual revenues. The GDPR requires, among other things, that personal data only be transferred outside of the EU to certain jurisdictions, including the United States, if steps are taken to legitimize those data transfers. We historically relied on the EU-U.S. and Swiss-U.S. Privacy Shield programs, and the use of standard contractual clauses approved by the European Commission (the "SCCs"), to legitimize these transfers. Both the EU-U.S. Privacy Shield and the SCCs have been subject to legal challenge, however, and on July 16, 2020, the Court of Justice of the European Union ("CJEU") invalidated the EU-U.S. Privacy Shield framework that had been in place since 2016, which allowed companies like us to meet certain European legal requirements for the transfer of personal data from the European Economic Area ("EEA") to the U.S., and imposed additional obligations on companies when relying on the SCCs. On September 8, 2020, the Swiss Federal Data Protection and Information Commissioner invalidated the Swiss-U.S. Privacy Shield on similar grounds. This CJEU decision and related developments may result in different EEA data protection regulators applying differing standards for the transfer of personal data from the EEA to the United States, and may even require ad hoc verification of measures taken with respect to data flows. The CJEU decision requires us to take additional steps to legitimize any impacted personal data transfers, including in connection with the use of the SCCs, with the full impact of such decision uncertain at this time. The European Commission published new SCCs in June 2021, which are required to be implemented over time. The CJEU decision and related developments could result in increased costs of compliance and limitations on our customers and us. More generally, as a result of the CJEU decision or related developments, we may find it necessary or desirable to modify our data handling practices and policies and to implement additional contractual and technical safeguards, and our practices relating to cross-border transfers of data or other data handling practices, or those of our customers and vendors, may be challenged. We also may be required to engage in additional contractual negotiations. As a result of these factors, our business, financial condition and operating results may be adversely impacted. Some countries also are considering

or have enacted legislation requiring local storage and processing of data that could increase the cost and complexity of delivering our services.

In addition to the GDPR, the European Commission has another draft regulation in the approval process that focuses on a person's right to conduct a private life. The proposed legislation, known as the Regulation of Privacy and Electronic Communications ("ePrivacy Regulation"), would replace the current ePrivacy Directive. Originally planned to be adopted and implemented at the same time as the GDPR, the ePrivacy Regulation is still being negotiated. On February 10, 2021, the Council of the EU agreed on its version of the draft ePrivacy Regulation. If adopted, the earliest date for entry into force is in 2023, with broad potential impacts on the use of internet-based services and tracking technologies, such as cookies. Aspects of the ePrivacy Regulation remain for negotiation between the European Commission and the Council. We expect to incur additional costs to comply with the requirements of the ePrivacy Regulation as it is finalized for implementation.

Further, the United Kingdom ("U.K.") exited the EU, commonly referred to as "Brexit," on January 31, 2020, subject to a transition period ending December 31, 2020. Brexit could lead to further legislative and regulatory changes. The U.K. has implemented legislation that substantially implements the GDPR, with penalties for noncompliance of up to the greater of £17.5 million or four percent of worldwide revenues. Aspects of U.K. data protection laws and regulations, however, including with respect to the role of the U.K. Information Commissioner's Office and regulation of data transfers to and from the U.K. in the medium to longer term, remain unclear. On June 28, 2021, the European Commission announced a decision of "adequacy" concluding that the U.K. ensures an equivalent level of data protection to the GDPR, which provides some relief regarding the legality of continued personal data flows from the EEA to the U.K. Some uncertainty remains, however, as this adequacy determination must be renewed after four years and may be modified or revoked in the interim. We cannot fully predict how U.K. data protection laws or regulations may develop in the medium to longer term nor the effects of divergent laws and guidance regarding how data transfers to and from the U.K. will be regulated. We may find it necessary or appropriate to make additional changes to the way we process data and otherwise conduct our business within, and transmit data to and from, the U.K. Some countries also are considering or have enacted legislation requiring local storage and processing of data, or similar requirements, which could increase the cost and complexity of delivering our services or require us to change our policies and practices.

California enacted legislation in 2018, the California Consumer Privacy Act ("CCPA"), that became operative on January 1, 2020. The CCPA requires covered companies to, among other things, provide new disclosures to California consumers, and affords such consumers new abilities to opt-out of certain sales of personal information. Aspects of the CCPA and its interpretation remain unclear. Additionally, a new privacy law, the California Privacy Rights Act ("CPRA"), was approved by California voters in the November 3, 2020 election. The CPRA creates obligations relating to consumer data beginning on January 1, 2022, with implementing regulations expected on or before July 1, 2022, and enforcement beginning July 1, 2023. The CPRA significantly modifies the CCPA, potentially resulting in further uncertainty and requiring us to incur additional costs and expenses. More generally, some observers have noted the CCPA could mark the beginning of a trend toward more stringent privacy legislation in the U.S., as observed with the Virginia Consumer Data Protection Act, enacted March 2021 and which becomes effective January 1, 2023, and the Colorado Privacy Act, enacted in June 2021 and which takes effect on July 1, 2023. We cannot fully predict the impact of the CCPA on our business or operations, but it may require us to modify our data processing practices and policies and to incur substantial costs and expenses in an effort to comply.

Even the perception of privacy, data protection or cybersecurity concerns, whether or not valid, may harm our reputation, inhibit adoption of our solutions by current and future customers, or adversely impact our ability to hire and retain workforce talent. If our security measures are or are believed to be inadequate or breached as a result of third-party action, employee negligence, error or malfeasance, social engineering techniques or otherwise, and this results in, or is believed to result in, the disruption of the confidentiality, integrity or availability of our systems or networks or any data we process or maintain, or the loss, destruction or corruption of such data, or our privacy, data protection or cybersecurity practices are or are perceived to be inadequate, we could incur significant liability, we could face a loss of revenues, and our business may suffer and our reputation and competitive position may be damaged. Additionally, our service providers may suffer, or be perceived to suffer, privacy or data security breaches or other incidents that may compromise, or be perceived to compromise, data stored or processed for us that may give rise to any of the foregoing.

We also expect that there will continue to be changes in interpretations of existing laws and regulations, or new proposed laws and regulations concerning privacy, data protection and cybersecurity. We cannot yet determine the impact these laws and regulations or changed interpretations may have on our business, but we anticipate that they could impair our or our customers' ability to collect, use or disclose information relating to individuals, which could decrease demand for our platform or solutions, increase our costs and impair our ability to maintain and grow our customer base and increase our revenue. Moreover, because the interpretation and application of many laws and regulations relating to privacy, data protection and cybersecurity, along with certain industry standards, are uncertain, it is possible that these laws, regulations and standards, or contractual obligations to which we are or may become subject, or to which we may be alleged to be subject, may be interpreted and applied in a manner that is inconsistent with our existing or future data management practices or features of our platform and solutions. Our actual or perceived failure to adequately comply with any such applicable laws, regulations, standards, and other actual or asserted obligations or to protect personal data and other data we process or maintain, could result in regulatory investigations and enforcement actions against us, fines, penalties and other liabilities, imprisonment of company officials and public censure, claims for damages by customers and other affected individuals,

required efforts to mitigate or otherwise respond to incidents, litigation, damage to our reputation and loss of goodwill (both in relation to existing customers and prospective customers), any of which could have a material adverse effect on our operations, financial performance and business. Even the perception of privacy, data protection or cybersecurity concerns, whether or not valid, may harm our reputation and inhibit adoption of our solutions and subscriptions by current and future customers.

Risks Related to Sales of Our Solutions, Subscriptions and Services

If we are unable to sell additional solutions, subscriptions and services, as well as renewals of our subscriptions and services, to our customers, our future revenue and operating results will be harmed.

Our future success depends, in part, on our ability to expand the deployment of our Mandiant Advantage platform with existing customers by selling them additional solutions, subscriptions and services. This may require increasingly sophisticated and costly sales efforts and may not result in additional sales. In addition, the rate at which our customers purchase additional solutions, subscriptions and services depends on a number of factors, including the perceived need for additional IT security, general economic conditions, and our customers' level of satisfaction with our existing solutions they have previously purchased. If our efforts to sell additional solutions, subscriptions and services to our customers are not successful, our business may suffer.

Further, existing customers that purchase our platform have no contractual obligation to renew their subscriptions after the initial contract period, and given our limited operating history, we may not be able to accurately predict our retention rates. Our customers' retention rates may decline or fluctuate as a result of a number of factors, including the level of their satisfaction with our platform, our customer support, customer budgets and the pricing of our platform compared with the solutions and services offered by our competitors. If our customers renew their subscriptions, they may renew for shorter contract lengths or on other terms that are less economically beneficial to us. We cannot assure you that our customers will renew their subscriptions, and if our customers do not renew their subscriptions or renew them on less favorable terms, our revenue may grow more slowly than expected, not grow at all, or even decline.

Our sales cycles can be long and unpredictable, and our sales efforts require considerable time and expense. As a result, our sales, billings and revenue are difficult to predict and may vary substantially from period to period, which may cause our results of operations to fluctuate significantly.

Our results of operations may fluctuate, in part, because of the resource intensive nature of our sales efforts, the length and variability of our sales cycle and the short-term difficulty in adjusting our operating expenses. Our results of operations depend in part on sales to large organizations. The length of our sales cycle, from identification of the opportunity to deal closure, may vary significantly from customer to customer, with sales to large enterprises typically taking longer to complete. To the extent our competitors develop solutions that our prospective customers view as equivalent to ours, our average sales cycle may increase. Because the length of time required to close a sale varies substantially from customer to customer, it is difficult to predict exactly when, or even if, we will make a sale with a potential customer. As a result, large individual sales have, in some cases, occurred in quarters subsequent to or in advance of those we anticipated, or have not occurred at all. We are generally billing a number of large deals in any quarter, and the loss or delay of one or more of these large transactions in a quarter could impact our results of operations for that quarter and any future quarters for which revenue from that transaction is delayed. As a result, it is difficult for us to forecast our revenue accurately in any quarter based on our internal forecasts of billings. Because a substantial portion of our expenses are relatively fixed in the short term, our results of operations will suffer if our revenue falls below our expectations in a particular quarter, which could cause the price of our common stock to decline.

We rely on revenue from sales of solutions and subscriptions and because we recognize revenue from most of these sales over the term of the relevant useful life or subscription period, downturns or upturns in sales are not immediately reflected in full in our results of operations.

Revenue from sales of our solutions and subscriptions accounts for a significant portion of our total revenue. New or renewal sales of subscriptions may decline or fluctuate as a result of a number of factors, including customers' level of satisfaction with our solutions and subscriptions, the actual or perceived efficacy of our security solutions, the prices of our solutions and subscriptions, the prices of solutions and subscriptions offered by our competitors or reductions in our customers' spending levels. If our sales of new or renewal subscription and service contracts decline, our revenue and revenue growth rate may decline and adversely affect our business. In addition, we recognize revenue from our subscriptions revenue ratably over the term of the relevant contract period, which is generally between one to five years. As a result, much of the solution, subscription and support revenue we report each quarter is derived from sales in prior quarters. Consequently, a decline in new or renewal sales in any one quarter will not be fully reflected in revenue in that quarter but will negatively affect our revenue in future quarters. Accordingly, the effect of significant decreases in the market acceptance of, or demand for, our solutions or subscriptions may not be immediately apparent from our results of operations until future periods. Also, it is difficult for us to rapidly increase our revenue through additional sales in any period, as the majority of our revenue is derived from sales of our solutions, subscriptions and services sold in prior periods. Furthermore, any increases in the average term of our subscriptions would result in a longer revenue recognition period, and could reduce the amount of revenue recognized in each period.

The sales prices of our solutions, subscriptions and services may decrease, which may reduce our gross profits and adversely impact our financial results.

The sales prices for our solutions, subscriptions and services may decline for a variety of reasons, including competitive pricing pressures, discounts, anticipation of the introduction of new solutions by our competitors, or promotional programs offered by us or our competitors. 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 solution and service offerings may reduce the price of solutions or subscriptions that compete with ours or may bundle them with other solutions and subscriptions. Additionally, although we price our solutions and subscriptions worldwide in U.S. dollars, 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 subscription offerings, if introduced, will enable us to maintain our gross profits at levels that will allow us to achieve profitability.

If we do not effectively hire, integrate and train our direct sales force, we may be unable to add new customers or increase sales to our existing customers, and our business will be adversely affected.

We continue to be substantially dependent on our direct sales force to obtain new customers and increase sales with existing customers. There is significant competition for sales personnel with the skills and technical knowledge that we require. Our ability to achieve revenue growth will depend, in large part, on our success in recruiting, integrating, training and retaining sufficient numbers of sales personnel to support our growth, particularly in international markets. New hires require significant training and may take significant time before they achieve full productivity. Our recent hires and planned hires may not become productive as quickly as we expect, and we may be unable to hire or retain sufficient numbers of qualified individuals in the markets where we do business or plan to do business. If we are unable to hire and train a sufficient number of effective sales personnel, or the sales personnel we hire are not successful in obtaining new customers or increasing sales to our existing customer base, our business will be adversely affected.

If we are unable to increase sales of our solutions to large organizations while mitigating the risks associated with serving such customers, our business, financial position and results of operations may suffer.

Our growth strategy is dependent, in part, upon increasing sales of our solutions to large enterprises and governments. Sales to large customers involve risks that may not be present (or that are present to a lesser extent) with sales to smaller entities. These risks include:

- increased purchasing power and leverage held by large customers in negotiating contractual arrangements with us;
- more stringent or costly requirements imposed upon us in our support service contracts with such customers, including stricter support response times and penalties for any failure to meet support requirements;
- more complicated implementation processes;
- longer sales cycles and the associated risk that substantial time and resources may be spent on a potential customer that ultimately elects not to purchase our platform or purchases less than we hoped;
- closer relationships with, and dependence upon, large technology companies who offer competitive solutions; and
- more pressure for discounts and write-offs.

In addition, because security breaches with respect to larger, high-profile enterprises are likely to be heavily publicized, there is increased reputational risk associated with serving such customers. If we are unable to increase sales of our offerings to large enterprise and government customers while mitigating the risks associated with serving such customers, our business, financial position and results of operations may suffer.

U.S. federal, state and local government sales are subject to a number of challenges and risks that may adversely impact our business.

Sales to U.S. federal, state, and local governmental agencies have accounted for, and may in the future account for, a significant portion of our revenue. Sales to such government entities are subject to the following risks:

- selling to governmental agencies can be highly competitive, expensive and time consuming, often requiring significant upfront time and expense without any assurance that such efforts will generate a sale;
- government certification requirements applicable to our solutions may change and, in doing so, restrict our ability to sell into the U.S. federal government sector until we have attained the revised certification;

- government demand and payment for our solutions and services may be impacted by government shutdowns, public sector budgetary cycles, contracting requirements and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our solutions and services;
- we sell our solutions to governmental agencies through our indirect channel partners, and these agencies may have statutory, contractual or other legal rights to terminate contracts with our distributors and resellers for convenience or due to a default, and any such termination may adversely impact our future results of operations; and
- governments routinely investigate and audit government contractors' administrative processes, and any unfavorable audit could result in the government refusing to continue buying our platform, which would adversely impact our revenue and results of operations, or institute fines or civil or criminal liability if the audit were to uncover improper or illegal activities.

Our ability to maintain customer satisfaction depends in part on the quality of our professional service organization and technical and other support services, including the quality of the support provided on our behalf by certain channel partners. Failure to maintain high-quality customer support could have a material adverse effect on our business, financial condition and results of operations.

Once our platform is deployed within our customers' networks, our customers depend on our technical and other support services, as well as the support of our channel partners, to resolve any issues relating to the implementation and maintenance of our platform. If we or our channel partners do not effectively assist our customers in deploying our platform, succeed in helping our customers quickly resolve post-deployment issues, or provide effective ongoing support, our ability to sell additional solutions, subscriptions or services as part of our platform to existing customers would be adversely affected and our reputation with potential customers could be damaged. Many larger organizations have more complex networks and require higher levels of support than smaller customers. If we fail to meet the requirements of our larger customers, it may be more difficult to execute on our strategy of upselling and cross selling with these customers. Additionally, if our channel partners do not effectively provide support to the satisfaction of our customers, we may be required to provide this level of support to those customers, which would require us to hire additional personnel and to invest in additional resources. It can take significant time and resources to recruit, hire, and train qualified technical support employees. We may not be able to hire such resources fast enough to keep up with demand. To the extent that we or our channel partners are unsuccessful in hiring, training, and retaining adequate support resources, our ability and the ability of our channel partners to provide adequate and timely support to our customers will be negatively impacted, and our customers' satisfaction with our platform will be adversely affected. Additionally, to the extent that we need to rely on our sales engineers to provide post-sales support, our sales productivity will be negatively impacted, which would harm our results of operations.

We may not have visibility into particular transactions affecting our financial position and results of operations.

We may, from time to time, change our pricing models. For example, we may offer some of our solutions and services on a consumption-based pricing model. In such event, we will generally recognize revenue on consumption. Because our customers will have flexibility in the timing of their consumption, we will not have the visibility into the timing of revenue recognition that would be the case under a subscription-based pricing model. There is a risk that customers will consume our solutions and services more slowly than we expect, and our actual results may differ from our forecasts. If our quarterly results of operations fall below the expectations of investors and securities analysts who follow our stock, the price of our common stock could decline substantially, and we could face costly lawsuits, including securities class actions.

Risks Related to Intellectual Property and Technology Licensing

Claims by others that we infringe their proprietary technology or other rights could harm our business.

Technology companies frequently enter into litigation based on allegations of patent infringement or other violations of intellectual property rights. In addition, patent holding companies seek to monetize patents they have purchased or otherwise obtained. As we face increasing competition and gain an increasingly higher profile, the possibility of intellectual property rights claims against us grows. From time to time, third parties have asserted, and we expect that third parties will continue to assert, claims of infringement of intellectual property rights against us. For example, on December 29, 2017, we executed Confidential Patent License Agreements with Finjan Holdings, Inc. ("Finjan"), whereby we resolved all pending litigation matters. Under the terms of the settlement agreement, we paid Finjan a one-time net cash settlement amount of $12.5 million in December 2017, in exchange for the resolution and settlement of all claims between Mandiant and Finjan and for cross-licenses between the companies of certain issued patents and patent applications. Other security companies have paid amounts to the same plaintiff to license some of the patents asserted against us. Third parties may in the future also assert claims against our customers or channel partners, whom our standard license and other agreements obligate us to indemnify against claims that our solutions infringe the intellectual property rights of third parties. Many of our competitors and others may now and in the future have significantly larger and more mature patent portfolios than we have. In addition, future litigation may involve patent holding companies or other patent owners who have no relevant product offerings or revenue and against whom our own patents may therefore provide little or no deterrence or protection. Any claim of intellectual property infringement by a third party, even a claim without merit, could cause us to incur substantial costs defending against such

claim, could distract our management from our business and could require us to cease use of such intellectual property. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by the discovery process.

Although third parties may offer a license to their technology or other intellectual property, the terms of any offered license may not be acceptable, and the failure to obtain a license or the costs associated with any license could cause our business, financial condition and results of operations to be materially and adversely affected. We may also be subject to additional fees or be required to obtain new licenses if any of our licensors allege that we have not properly paid for such licenses or that we have improperly used the technologies under such licenses. In addition, some licenses may be non-exclusive, and therefore our competitors may have access to the same technology licensed to us. If a third party does not offer us a license to its technology or other intellectual property on reasonable terms, or at all, we could be enjoined from continued use of such intellectual property. As a result, we may be required to develop alternative, non-infringing technology, which could require significant time (during which we could be unable to continue to offer our affected solutions, subscriptions or services), effort, and expense and may ultimately not be successful. Furthermore, a successful claimant could secure a judgment or we may agree to a settlement that prevents us from distributing certain solutions, providing certain subscriptions or performing certain services or that requires us to pay substantial damages, royalties or other fees. Any of these events could harm our business, financial condition and results of operations.

Our technology alliance partnerships expose us to a range of business risks and uncertainties that could have a material adverse impact on our business and financial results.

We have entered, and intend to continue to enter, into technology alliance partnerships with third parties to support our future growth plans. Such relationships include technology licensing, joint technology development and integration, research cooperation, co-marketing activities and sell-through arrangements. We face a number of risks relating to our technology alliance partnerships that could prevent us from realizing the desired benefits from such partnerships on a timely basis or at all, which, in turn, could have a negative impact on our business and financial results.

Technology alliance partnerships require significant coordination between the parties involved, particularly if a partner requires that we integrate its solutions with our solutions. This could involve a significant commitment of time and resources by our technical staff and their counterparts within our technology alliance partner. The integration of solutions from different companies may be more difficult than we anticipate, and the risk of integration difficulties, incompatible solutions and undetected programming errors or defects may be higher than the risks normally associated with the introduction of new solutions. It may also be more difficult to market and sell solutions developed through technology alliance partnerships than it would be to market and sell solutions that we develop on our own. Sales and marketing personnel may require special training, as the new solutions may be more complex than our other solutions.

We invest significant time, money and resources to establish and maintain relationships with our technology alliance partners, but we have no assurance that any particular relationship will continue for any specific period of time. In addition, our technology alliance partners may currently or in the future have offerings that compete with our offerings in certain markets, which may make it difficult to establish long-term or effective relationships with them. Generally, our agreements with technology alliance partners are terminable without cause with no or minimal notice or penalties. If we lose a significant technology alliance partner, we could lose the benefit of our investment of time, money and resources in the relationship. In addition, we could be required to incur significant expenses to develop a new strategic alliance or to determine and implement an alternative plan to pursue the opportunity that we targeted with the former partner.

We may be unable to protect our intellectual property adequately, which could harm our business, financial condition and results of operations.

We believe that our intellectual property is an essential asset of our business. We rely on a combination of patent, copyright, trademark, database rights, and trade secret laws, as well as confidentiality procedures and contractual provisions, to establish and protect our intellectual property rights in the United States and abroad. The efforts we have taken to protect our intellectual property may not be sufficient or effective, and our trademarks, copyrights and patents may be held invalid or unenforceable. Any U.S. or other patents issued to us may not be sufficiently broad to protect our proprietary technologies, and given the costs of obtaining patent protection, we may choose not to seek patent protection for certain of our proprietary technologies. We may not be effective in policing unauthorized use of our intellectual property, and even if we do detect violations, litigation may be necessary to enforce our intellectual property rights. Any enforcement efforts we undertake, including litigation, could be time-consuming and expensive, could divert management's attention and may result in a court determining that our intellectual property rights are unenforceable. If we are not successful in cost-effectively protecting our intellectual property rights, our business, financial condition and results of operations could be harmed.

We incorporate technology from third parties into our solutions, and our inability to obtain or maintain rights to the technology could harm our business.

We incorporate technology from third parties into our solutions. We cannot be certain that our suppliers and licensors are not infringing the intellectual property rights of third parties or that the suppliers and licensors have sufficient rights to the technology in

all jurisdictions in which we may sell our solutions. Some of our agreements with our suppliers and licensors may be terminated for convenience by them. If we are unable to obtain or maintain rights to any of this technology because of intellectual property infringement claims brought by third parties against our suppliers and licensors or against us, or if we are unable to continue to obtain such technology or enter into new agreements on commercially reasonable terms, our ability to develop and sell solutions, subscriptions and services containing such technology could be severely limited, and our business could be harmed. Additionally, if we are unable to obtain necessary technology from third parties, including certain sole suppliers, we may be forced to acquire or develop alternative technology, which may require significant time, cost and effort and may be of lower quality or performance standards. This would limit and delay our ability to offer new or competitive solutions and increase our costs of development. If alternative technology cannot be obtained or developed, we may not be able to offer certain functionality as part of our solutions, subscriptions and services. As a result, our margins, market share and results of operations could be significantly harmed.

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

Our solutions and subscriptions contain software modules licensed to us by third-party authors under "open source" licenses. The use and distribution of open source software may entail greater risks than the use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the type of open source software we use. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release the source code of our proprietary software to the public. This would allow our competitors to create similar solutions with lower development effort and time and ultimately could result in a loss of sales for us.

Although we monitor our use of open source software to try to avoid subjecting our solutions and subscriptions to conditions, 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 ways that could impose unanticipated conditions or restrictions on our ability to commercialize solutions and subscriptions incorporating such software. Moreover, we cannot assure you that our processes for controlling our use of open source software in our solutions and subscriptions will be effective. From time to time, we may face claims from third parties asserting ownership of, or demanding release of, the open source software or derivative works that we developed using such software (which could include our proprietary source code), or otherwise seeking to enforce the terms of the applicable open source license. These claims could result in litigation. If we are held to have breached the terms of an open source software license, we could be required to seek licenses from third parties to continue offering our solutions on terms that are not economically feasible, to re-engineer our solutions, to discontinue the sale of our solutions if re-engineering could not be accomplished on a timely or cost-effective basis, or to make generally available, in source code form, our proprietary code, any of which could adversely affect our business, results of operations and financial condition.

Risks Related to Operations Outside the United States

We generate a significant amount of revenue from sales through resellers, distributors and end customers outside of the United States, and we are therefore subject to a number of risks associated with international sales and operations.

We have a limited history of marketing, selling, and supporting our platform internationally. As a result, we must hire and train experienced personnel to staff and manage our foreign operations. To the extent that we experience difficulties in recruiting, training, managing, and retaining international employees, particularly managers and other members of our international sales team, we may experience difficulties in sales productivity in, or market penetration of, foreign markets. We also enter into strategic distributor and reseller relationships with companies in certain international markets where we do not have a local presence. If we are not able to maintain successful strategic distributor relationships with our international channel partners or recruit additional channel partners, our future success in these international markets could be limited. Business practices in the international markets that we serve may differ from those in the United States and may require us to include non-standard terms in customer contracts, such as extended payment or warranty terms. To the extent that we enter into customer contracts in the future that include non-standard terms related to payment, warranties, or performance obligations, our results of operations may be adversely impacted.

Additionally, our international sales and operations are subject to a number of risks, including the following:

- greater difficulty in enforcing contracts and managing collections, as well as longer collection periods
- higher costs of doing business internationally, including incremental regulatory compliance costs, taxes and employee benefit costs, as well as costs incurred in establishing and maintaining office space and equipment for our international operations;
- fluctuations in exchange rates between the U.S. dollar and foreign currencies in markets where we do business, such as the British Pound Sterling, which experienced a sharp decline in value compared to the U.S. dollar and other currencies;
- management communication and integration problems resulting from cultural and geographic dispersion;

- risks associated with trade restrictions and foreign legal requirements, including any importation, certification, and localization of our platform that may be required in foreign countries and any changes in trade relations and restrictions;
- greater risk of unexpected changes in foreign and domestic regulatory practices, tariffs and tax laws and treaties, including regulatory and trade policy changes;
- compliance with anti-bribery laws, including, without limitation, compliance with the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. Travel Act and the U.K. Bribery Act 2010, violations of which could lead to significant fines, penalties and collateral consequences for our Company;
- heightened risk 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, or irregularities in, financial statements;
- the uncertainty of protection for intellectual property rights in some countries;
- foreign exchange controls or tax regulations that might prevent us from repatriating cash earned outside the United States;
- general economic, political and social conditions in these foreign markets, including the perception of doing business with U.S. based companies and changes in regulatory requirements that impact our operating strategies, access to global markets or hiring;
- political and economic instability in some countries, such as those caused by the 2016 U.S. presidential election and the withdrawal of the United Kingdom from the European Union, commonly referred to as "Brexit";
- increased exposure to public health issues such as the current COVID-19 pandemic, and related industry and governmental actions to address these issues; and
- double taxation of our international earnings and potentially adverse tax consequences due to changes in the tax laws of the United States or the foreign jurisdictions in which we operate.

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.

For example, Brexit could also lead to further legislative and regulatory changes. A Data Protection Act that substantially implements the GDPR has been implemented in the U.K., effective in May 2018 and subject to additional statutory amendments in 2019 to further align such Data Protection Act with the GDPR. It is unclear, however, how U.K. data protection laws or regulations will develop in the medium to longer term, and how data transfers to and from the U.K. will be regulated. In particular, the U.K.’s exit from the EU to effectuate Brexit could require us to make additional changes to the way we conduct our business and transmit data from the EU into the U.K.

These and other factors could harm our ability to generate future international revenue and, consequently, materially impact our business, results of operations and financial condition.

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

Our sales contracts are denominated in U.S. dollars, and therefore our revenue is not subject to foreign currency risk. However, strengthening of the U.S. dollar increases the real cost of our solutions, subscriptions and services to our customers outside of the United States, which could lead to delays in the purchase of our solutions and services and the lengthening of our sales cycle. In addition, we are incurring an increasing portion of our operating expenses outside the United States. These expenses are denominated in foreign currencies and are subject to fluctuations due to changes in foreign currency exchange rates.

Additionally, Brexit resulted in an adverse impact to currency exchange rates, notably the British Pound Sterling which experienced a sharp decline in value compared to the U.S. dollar and other currencies. A significantly weaker British Pound Sterling compared to the U.S. dollar could have a significantly negative effect on our financial condition and results of operations.

We do not currently hedge against the risks associated with currency fluctuations but may do so in the future.

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

Our solutions are subject to U.S. export controls and trade and economic sanctions, specifically the Commerce Department Export Administration Regulations ("EAR") and regulations enforced by the Office of Foreign Assets Control. We incorporate standard

encryption algorithms into many of our solutions, which, along with the underlying technology, may be exported outside of the U.S. only with the required export authorizations, including by license, license exception or other appropriate government authorizations, which may require the filing of a classification request and/or annual and semi-annual reporting. Additionally, our current or future solutions may be classified under the EAR or as defense articles subject to the United States International Traffic in Arms Regulations ("ITAR"). Most of our solutions have been classified under the EAR and are generally exportable without needing a specific license, under an EAR exception for encryption software. If a solution, or component of a solution, is classified under the ITAR, or is ineligible for the EAR encryption exception, then those solutions could be exported outside the United States only if we obtain the applicable export license or qualify for a different license exception. In certain contexts, the services we provide might be classified as defense services subject to the ITAR separately from the solutions we provide. Compliance with the EAR, ITAR, and other applicable regulatory requirements regarding the export of our solutions, including new releases of our solutions and/or the performance of services, may create delays in the introduction of our solutions in non-U.S. markets, prevent our customers with non-U.S. operations from deploying our solutions throughout their global systems or, in some cases, prevent the export of our solutions to some countries altogether. Violations of U.S. sanctions or export control regulations can result in significant fines or penalties and possible incarceration for responsible employees and managers. If our channel partners fail to obtain appropriate import, export, or re-export licenses or permits, we may also be adversely affected through reputational harm, as well as other negative consequences, including government investigations and penalties.

In addition, proposed regulations have been released in the United States which may subject additional solutions, technology, and services to control under the EAR. If those regulations go into effect as currently written, we may need to apply for and obtain licenses prior to exporting these items to certain destinations and end-users. This licensing requirement could increase the time between order and delivery for these items and also could result in us not being able to provide solutions and services to particular customers if any license request is denied, which could adversely affect our business, financial condition and results of operations.

Also, various countries, in addition to the United States, regulate the import and export of certain cybersecurity, encryption and other solutions, technology and services, including through export and import permit and licensing requirements, and have enacted laws that could limit our ability to distribute our solutions, could limit our customers' ability to implement our solutions or could limit our ability to provide services to our customers in those countries. Changes in our solutions or changes in export and import regulations may create delays in the introduction of our solutions into international markets, prevent our customers with international operations from deploying our solutions globally or, in some cases, prevent the export or import of our solutions to certain countries, governments or persons altogether. Any change in export or import regulations, economic sanctions or related legislation, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons or technologies targeted by such regulations, could result in decreased use of our solutions by, or in our decreased ability to export or sell our solutions to, existing or potential customers with international operations. Any decreased use of our solutions or limitation on our ability to export to or sell our solutions in international markets would likely adversely affect our business, financial condition and results of operations.

Risks Related to Our Convertible Senior Notes

We are leveraged financially, which could adversely affect our ability to adjust our business to respond to competitive pressures and to obtain sufficient funds to satisfy our future growth, business needs and development plans.

We have substantial existing indebtedness. In June 2015, we issued $460.0 million principal amount of 1.000% Convertible Senior Notes due 2035 (the "Series A Notes") and $460.0 million principal amount of 1.625% Convertible Senior Notes due 2035 (the "Series B Notes" and, together with the Series A Notes, the "2035 Notes"). During the three months ended June 30, 2018, we issued $600.0 million aggregate principal amount of 0.875% Convertible Senior Notes due 2024 (the "2024 Notes" and, together with the 2035 Notes, the "convertible notes") and repurchased approximately $340.2 million aggregate principal amount of the Series A Notes. During the three months ended June 30, 2020, we repurchased approximately $96.4 million aggregate principal amount of the Series A Notes. As a result, as of December 31, 2021, we had approximately $1.1 billion aggregate principal amount of convertible notes outstanding.

The degree to which we are leveraged could have negative consequences, including, but not limited to, the following:

- we may be more vulnerable to economic downturns, less able to withstand competitive pressures and less flexible in responding to changing business and economic conditions;
- our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions, general corporate or other purposes may be limited;
- a substantial portion of our cash flows from operations in the future may be required for the payment of the principal amount of our existing indebtedness when it becomes due; and
- we may elect to make cash payments upon any conversion of the convertible notes, which would reduce our cash on hand.

Our ability to meet our payment obligations under our convertible notes depends on our ability to generate significant cash flow in the future. This, to some extent, is subject to general economic, financial, competitive, legislative and regulatory factors as well as other factors that are beyond our control. There can be no assurance that our business will generate cash flow from operations, or that additional capital will be available to us, in an amount sufficient to enable us to meet our debt payment obligations and to fund other liquidity needs. If we are unable to generate sufficient cash flow to service our debt obligations, we may need to refinance or restructure our debt, sell assets, reduce or delay capital investments, or seek to raise additional capital. If we were unable to implement one or more of these alternatives, we may be unable to meet our debt payment obligations, which could have a material adverse effect on our business, results of operations, or financial condition.

If holders of the 2035 Notes require us to repurchase their notes on any repurchase date, our financial condition and operating results could be adversely affected.

Holders of the Series A Notes have the right to require us to repurchase their notes on each of June 1, 2025 and June 1, 2030, and holders of the Series B Notes will have the right to require us to repurchase their notes on each of June 1, 2022, June 1, 2025 and June 1, 2030 at a repurchase price equal to 100% of the principal amount of the notes of the relevant series to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the relevant repurchase date pursuant to the applicable indenture governing such series of notes. If holders require us to repurchase their notes of an applicable series on an applicable repurchase date, our financial condition and operating results could be adversely affected.

The conditional conversion feature of each series of convertible notes, if triggered, may adversely affect our financial condition and operating results.

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

The accounting method for convertible debt securities that may be settled in cash, such as the convertible notes, is subject to changes that could have a material effect on our reported financial results.

The current accounting method for reflecting the convertible notes on our balance sheet, accruing interest expense for the convertible notes and reflecting the shares of our common stock underlying the convertible notes in our reported diluted earnings per share may adversely affect our reported earnings and financial condition. Under current accounting principles, the initial liability carrying amount of the convertible notes is the fair value of a similar debt instrument that does not have a conversion feature, valued using our cost of capital for straight, unconvertible debt.

However, in August 2020, FASB issued ASU No. 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity (ASU 2020-06), eliminating the separate accounting for the debt and equity components as described above. ASU 2020-06 is effective for fiscal years beginning after December 15, 2021, with early adoption permitted for fiscal years beginning after December 15, 2020, and can be adopted on either a fully retrospective or modified retrospective basis. We are currently evaluating the timing, method of adoption and overall impact of this standard on our consolidated financial statements.

When we adopt ASU 2020-06, we expect the elimination of the separate accounting for the debt and equity components of our convertible notes described above to reduce the interest expense that we expect to recognize for the notes for accounting purposes. In addition, ASU 2020-06 eliminates the use of the treasury stock method for convertible instruments that can be settled in whole or in part with equity, and instead requires application of the "if-converted" method. Among other potential impacts, our adoption of ASU 2020-06 is expected to reduce reported interest expense, increase reported net income, and result in a reclassification of certain conversion feature balance sheet amounts from stockholders' equity to liabilities as it relates to the convertible notes. Furthermore, if any of the conditions to the convertibility for a series of convertible notes is satisfied, then we may be required under applicable accounting standards to reclassify the liability carrying value of such series of convertible notes as a current, rather than a long-term, liability. This reclassification could be required even if no holders of the applicable series of convertible notes convert their notes and could materially reduce our reported working capital and have a material effect on our reported financial results.

Transactions related to our convertible notes may affect the market price of our common stock.

The conversion of any of our series of convertible notes, if such conversion occurs, will dilute the ownership interests of then-existing stockholders to the extent we deliver shares upon conversion of any of the convertible notes. Any sales in the public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the convertible notes may encourage short selling by market participants because any conversion of the convertible notes could be used to satisfy short positions, or anticipated conversion of the convertible notes into shares of our common stock could depress the price of our common stock.

In addition, in connection with our issuance of the 2024 Notes, we entered into capped call transactions (the "capped call transactions") with certain financial institutions (the "option counterparties"). The capped call transactions are expected generally to reduce the potential dilution to our common stock upon any conversion of the 2024 Notes and/or offset any cash payments we are required to make in excess of the principal amount of such 2024 Notes converted, as the case may be, with such reduction and/or offset subject to a cap. From time to time, the option counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivative transactions with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the 2024 Notes. This activity could cause a decrease in the market price of our common stock.

We are subject to counterparty risk with respect to the capped call transactions.

The option counterparties to our capped call transactions are financial institutions, and we will be subject to the risk that one or more of the counterparties may default or otherwise fail to perform, or may exercise certain rights to terminate, their obligations under the capped call transactions. Our exposure to the credit risk of the option counterparties will not be secured by any collateral. Adverse global economic conditions may result in the actual or perceived failure or financial difficulties for financial institutions, including one or more of our option counterparties. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under our transactions with that option counterparty. Our exposure will depend on many factors but, generally, our exposure will increase if the market price or the volatility of our common stock increases. In addition, upon a default or other failure to perform, or a termination of obligations, by an option counterparty, we may suffer adverse tax consequences and more dilution than we currently anticipate with respect to our common stock. We can provide no assurances as to the financial stability or viability of the option counterparties.

Risks Related to Our Series A Convertible Preferred Stock

The holders of Series A Convertible Preferred Stock may exercise influence over us, including through their ability to designate a member of our board of directors

The holders of Series A Convertible Preferred Stock are generally entitled to vote with the holders of the shares of common stock on all matters submitted for a vote of holders of shares of common stock (voting together with the holders of shares of common stock as one class) on an as-converted basis, subject to certain Nasdaq voting limitations, if applicable. Additionally, the consent of the holders of a majority of the outstanding shares of Series A Convertible Preferred Stock is required for so long as any shares of the Series A Convertible Preferred Stock remain outstanding for (i) amendments to our organizational documents that have an adverse effect on the holders of Series A Convertible Preferred Stock and (ii) issuances by us of securities that are senior to, or equal in priority with, the Series A Convertible Preferred Stock. In addition, for so long as 25% of the Series A Convertible Preferred Stock issued in connection with the Securities Purchase Agreement with BTO Delta Holdings DE L.P., an investment vehicle of funds affiliated with The Blackstone Group Inc. ("Blackstone"), and the Securities Purchase Agreement with ClearSky Security Fund I LLC and ClearSky Power & Technology Fund II LLC (together, the "Series A Securities Financing Agreements") remains outstanding, consent of the holders of a majority of the outstanding shares of Series A Convertible Preferred Stock will be required for (A) any change to the size of our board of directors, (B) any voluntary dissolution, liquidation, bankruptcy, winding up or deregistration or delisting, and (C) incurrence by us of net debt in excess of $350,000,000.

Additionally, pursuant to the applicable Series A Securities Financing Agreement, Blackstone has the right to nominate for election one member to our board of directors for so long as Blackstone holds 65% of the Series A Convertible Preferred Stock. The director designated by Blackstone is entitled to serve on committees of our board of directors, subject to applicable law and Nasdaq rules. Notwithstanding the fact that all directors will be subject to fiduciary duties to us and to applicable law, the interests of the director designated by Blackstone may differ from the interests of our security holders as a whole or of our other directors.

As a result, the holders of Series A Convertible Preferred Stock have the ability to influence the outcome of certain matters affecting our governance and capitalization. The sponsors of the holders of Series A Convertible Preferred Stock are in the business of making or advising on investments in companies, including businesses that may directly or indirectly compete with certain portions of our business, and they may have interests that diverge from, or even conflict with, those of our other shareholders. They may also pursue acquisition opportunities that may be complementary to our business, and, as a result, those acquisition opportunities may not be available to us. Our obligations to the holders of Series A Convertible Preferred Stock could also limit our ability to obtain additional financing or increase our borrowing costs, which could have an adverse effect on our financial condition.

Our Series A Convertible Preferred Stock has rights, preferences, and privileges that are not held by, and are preferential to, the rights of holders of our common stock, which could adversely affect our liquidity and financial condition.

The holders have the right under the Series A Certificate of Designation to receive a liquidation preference entitling them to be paid an amount per share equal to the greater of (i) $1,000 per share, plus all accrued and unpaid dividends and (ii) the amount that the holder of Series A Convertible Preferred Stock would have been entitled to receive at such time if the Series A Convertible Preferred Stock were converted into common stock. In addition, the holders are entitled to dividends on the original purchase price of $1,000 per share at a rate of 4.5% per annum, that (i) for the first three years after December 11, 2020, or the Series A closing date, will be paid in-kind, and (ii) after the third anniversary of the Series A closing date, will, at our election either be paid in cash, or, if not, will

accrue and accumulate, in each case, accruing daily and paid quarterly in arrears. The holders are also entitled to participate in dividends declared or paid on the common stock on an as-converted basis.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our common stock or the Series A Convertible Preferred Stock and may negatively impact the holders' investment.

Except in certain circumstances, we are not restricted from issuing additional shares of common stock or preferred stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, common stock or preferred stock or any substantially similar securities. The market price of our common stock or Series A Convertible Preferred Stock could decline as a result of sales of a large number of shares of common stock or Series A Convertible Preferred Stock or similar securities in the market or the perception that such sales could occur. For example, if we issue preferred stock in the future that has a preference over our common stock with respect to the payment of dividends or upon our liquidation, dissolution or winding-up, or if we issue preferred stock with voting rights that dilute the voting power of our common stock, the rights of holders of our common stock or the market price of our common stock could be adversely affected.

In addition, each share of Series A Convertible Preferred Stock will initially be convertible at the option of the holder thereof into shares of our common stock. The conversion of some or all of the Series A Convertible Preferred Stock will dilute the ownership interest of our existing common stockholders. Any sales in the public market of our common stock issuable upon such conversion could adversely affect prevailing market prices of the outstanding shares of our common stock and Series A Convertible Preferred Stock. In addition, the existence of our Series A Convertible Preferred Stock may encourage short selling or arbitrage trading activity by market participants because the conversion of our Series A Convertible Preferred Stock could depress the price of our equity securities. As noted above, a decline in the market price of the common stock may negatively impact the market price for the Series A Convertible Preferred Stock.

Risks Related to Ownership of Our Common Stock

If securities or industry analysts do not publish research or reports about our business, or publish inaccurate or unfavorable research reports about our business, our share price and trading volume could decline.

The trading market for our common stock, to some extent, depends on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us should downgrade our shares or change their opinion of our shares, industry sector or solutions, our share price would likely decline. If one or more of these analysts ceases coverage of us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

We may fail to meet our publicly announced guidance or other expectations about our business and future operating results, which would cause our stock price to decline.

We have provided and may continue to provide guidance about our business and future operating results. In developing this guidance, our management must make certain assumptions and judgments about our future performance. Furthermore, analysts and investors may develop and publish their own projections of our business, which may form a consensus about our future performance. Our business results may vary significantly from such guidance or that consensus due to a number of factors, many of which are outside of our control, and which could adversely affect our operations and operating results. Such factors may include the possibility that interpretation, industry practice, and accounting guidance may continue to evolve during the early stages of adoption of Accounting Standard Update 2014-09, Revenue from Contracts with Customers (Topic 606). Furthermore, if we make downward revisions of our previously announced guidance, or if our publicly announced guidance of future operating results fails to meet expectations of securities analysts, investors or other interested parties, the price of our common stock would decline.

The price of our common stock has been and may continue to be volatile, and the value of your investment could decline.

The trading price of our common stock has been volatile since our initial public offering, and is likely to continue to be volatile. The trading price of our common stock may fluctuate widely in response to various factors, some of which are beyond our control. These factors include:

- whether our results of operations, and in particular, our revenue growth rates, meet the expectations of securities analysts or investors;
- actual or anticipated changes in the expectations of investors or securities analysts, whether as a result of our forward-looking statements, our failure to meet such expectation or otherwise;
- announcements of new solutions, services or technologies, commercial relationships, acquisitions or other events by us or our competitors;
- changes in how customers perceive the effectiveness of our platform in protecting against advanced cyber-attacks or other reputational harm;

- publicity concerning cyber-attacks in general or high profile cyber-attacks against specific organizations;
- price and volume fluctuations in the overall stock market from time to time;
- significant volatility in the market price and trading volume of technology and/or growth companies in general and of companies in the IT security industry in particular;
- fluctuations in the trading volume of our shares or the size of our public float;
- actual or anticipated changes or fluctuations in our results of operations;
- litigation involving us, our industry, or both;
- regulatory developments in the United States, foreign countries or both;
- general economic conditions and trends;
- natural disasters or other catastrophic events;
- public health crises and related measures to protect the public health, such as the COVID-19 pandemic;
- actual or perceived security breaches or incidents that we or our service providers may suffer;
- sales of large blocks of our common stock or substantial future sales by our directors, executive officers, employees and significant stockholders; and
- departures of key personnel.

In addition, if the market for technology stocks or the stock market in general experiences a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, results of operations or financial condition. The trading price of our common stock might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. The price of our common stock has been highly volatile since our IPO in September 2013, and several lawsuits alleging violations of securities laws were filed against us and certain of our current and former directors and executive officers in 2014 and 2015. Any securities litigation could result in substantial costs and divert our management's attention and resources from our business. This could have a material adverse effect on our business, results of operations and financial condition.

Sales of substantial amounts of our common stock in the public markets, or sales of our common stock by our executive officers and directors under Rule 10b5-1 plans, could adversely affect the market price of our common stock.

Sales of a substantial number of shares of our common stock in the public market, or the perception that such sales could occur, could adversely affect the market price of our common stock and may make it more difficult for you to sell your common stock at a time and price that you deem appropriate. In addition, certain of our executive officers and directors have adopted, and other executive officers and directors may in the future adopt, written plans, known as "Rule 10b5-1 Plans," under which they have contracted, or may in the future contract, with a broker to sell shares of our common stock on a periodic basis to diversify their assets and investments. Sales made by our executive officers and directors pursuant to Rule 10b5-1, regardless of the amount of such sales, could adversely affect the market price of our common stock.

The issuance of additional stock in connection with financings, acquisitions, investments, our stock incentive plans, conversion of our convertible notes, conversion of the Series A Convertible Preferred Stock or otherwise will dilute all other stockholders.

Our amended and restated certificate of incorporation authorizes us to issue up to 1,000,000,000 shares of common stock and up to 100,000,000 shares of preferred stock with such rights and preferences as may be determined by our board of directors. Subject to compliance with applicable rules and regulations, we may issue shares of common stock or securities convertible into our common stock from time to time in connection with a financing, acquisition, investment, our stock incentive plans, the conversion of our convertible notes or otherwise. For example, in October 2017, we issued 259,425 shares of common stock in connection with our acquisition of The Email Laundry; in January 2018, we issued 1,016,334 shares of common stock in connection with our acquisition of X15; in May 2019, we issued 8,404,609 shares of common stock in connection with our acquisition of Verodin, in November 2020, we issued 4,931,862 shares of common stock in connection with our acquisition of Respond Software. In addition, we issued $920.0 million aggregate principal amount of 2035 Notes, of which approximately $483.4 million aggregate principal remains outstanding, and we issued $600.0 million aggregate principal amount of the 2024 Notes during the three months ended June 30, 2018. In December 2020, we issued 400,000 shares of Series A Convertible Preferred Stock. Any future issuances could result in substantial dilution to our existing stockholders and cause the trading price of our common stock to decline.

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

We have never declared or paid any dividends on our common stock. We intend to retain any earnings to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the future. As a result, you may only receive a return on your investment in our common stock if the market price of our common stock increases.

Our charter documents and Delaware law, as well as certain provisions of our convertible notes, could discourage takeover attempts and lead to management entrenchment, which could also reduce the market price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could delay or prevent a change in control of us. These provisions could also make it difficult for stockholders to elect directors who are not nominated by the current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions include:

- a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by our board of directors, the chairperson of our board of directors, our Chief Executive Officer or our President (in the absence of a Chief Executive Officer), which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- the requirement for the affirmative vote of holders of at least 66 $^{2}/_{3}$% of the voting power of all of the then outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our amended and restated certificate of incorporation relating to the management of our business (including our classified board structure) or certain provisions of our amended and restated bylaws, which may inhibit the ability of an acquiror to effect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors to amend the bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquiror to amend the bylaws to facilitate an unsolicited takeover attempt; and
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

In addition, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law, which may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a specified period of time. Additionally, certain provisions of our convertible notes could make it more difficult or more expensive for a third party to acquire us. The application of Section 203 or certain provisions of our convertible notes also could have the effect of discouraging, delaying or preventing a transaction involving a change in control of us. Any of these provisions could, under certain circumstances, depress the market price of our common stock.

We cannot guarantee that our stock repurchase program will be fully implemented or that it will enhance long-term stockholder value.

In June 2021, our board of directors approved a stock repurchase program for the repurchase of up to $500 million of the currently outstanding shares of our common stock. As of December 31, 2021, approximately $200 million remained available under the stock repurchase program. The repurchase program has no termination date and may be suspended for periods, amended or discontinued at any time. We are not obligated to repurchase a specified number or dollar value of shares. Share repurchases under the program will be made from time to time in private transactions or open market purchases, as permitted by securities laws and other legal requirements. There can be no guarantee around the timing of our share repurchases, or that the volume of such repurchases will

increase. The stock repurchase program could affect the price of our common stock, increase volatility, diminish our cash reserves, and even if fully implemented may not enhance long-term stockholder value.

Risks Related to Potential Catastrophic Events

The global COVID-19 pandemic, and government imposed COVID-19 vaccination mandates or testing requirements, could harm our business and results of operations.

This COVID-19 pandemic has continued to spread across the globe and is impacting worldwide economic activity and financial markets. In light of the uncertain and rapidly evolving situation relating to the spread of COVID-19, including the occurrence of breakthrough cases and COVID-19 variants, we have taken precautionary measures intended to minimize the risk of the virus to our employees, our customers, and the communities in which we operate, which could negatively impact our business. Although we continue to monitor the situation and may adjust our current policies as more information and public health guidance become available, precautionary measures that have been adopted could negatively affect our customer success efforts, sales and marketing efforts, delay and lengthen our sales cycles, or create operational or other challenges, any of which could harm our business and results of operations. In addition, the COVID-19 pandemic may disrupt the operations of our customers and partners for an indefinite period of time, including as a result of travel restrictions and/or business shutdowns, all of which could negatively impact our business and results of operations, including cash flows. More generally, the COVID-19 pandemic could adversely affect economies and financial markets globally, potentially leading to an economic downturn, which could decrease technology spending and adversely affect demand for our offerings and harm our business and results of operations. It is not possible at this time to estimate the impact that the COVID-19 pandemic could have on our business, as the impact will depend on future developments, which are highly uncertain and cannot be predicted.

In addition, in January 2022, the U.S. Supreme Court struck down the U.S. Department of Labor's Occupational Safety and Health Administration ("OSHA") Emergency Temporary Standard (the "ETS") requiring that all employers with at least 100 employees ensure that their U.S. employees are fully vaccinated for COVID-19. Following that ruling, OSHA chose to withdraw the vaccine ETS altogether. In addition, the federal district court in Georgia stayed the enforcement of the mandatory employee COVID-19 vaccination requirement found in President Biden's Executive Order for U.S. government contractors and their subcontractors (the "Executive Order"). As a result, we revised our COVID-19 policy to only require COVID-19 vaccination for employees or visitors that will be entering any of Mandiant's U.S. office locations. We are also complying with the other aspects of the Executive Order for federal government contractors at our covered contractor workplaces that have not been stayed by the federal courts. Our implementation and enforcement of vaccination requirements could be difficult, costly, and potentially result in employee attrition, including attrition of key employees, disruptions in workforce performance, and difficulty securing future labor needs, any of which could have a material adverse effect on our business, financial condition, and results of operations.

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 or armed conflicts.

Natural disasters or other catastrophic events, including earthquakes, fires, floods, significant power outages, telecommunications failures, outbreak of pandemic or contagious diseases (including, but not limited to, the current COVID-19 pandemic) and cyber-attacks, may cause damage or disruption to our operations, international commerce and the global economy, and thus could have a material adverse impact on our business, results of operations, and financial condition. Despite any precautions we may take, the occurrence of a natural disaster or other unanticipated problems at our facilities or the facilities of our public cloud providers could result in disruptions, outages, and other performance and quality problems. Customer data could be lost, significant recovery time could be required to resume operations and our financial condition and operating results could be adversely affected in the event of a natural disaster or other catastrophic event. In addition, computer malware, viruses and computer hacking, fraudulent use attempts, and phishing attacks have become more prevalent in our industry, and our internal systems may be victimized by such attacks. Although we maintain incident management and disaster response plans, in the event of a major disruption caused by a natural disaster or man-made problem, we may be unable to continue our operations and may endure system interruptions, reputational harm, delays in our development activities, lengthy interruptions in service, breaches of data security and loss of critical data, and our insurance may not cover such events or may be insufficient to compensate us for the potentially significant losses we may incur. Furthermore, acts of terrorism, armed conflicts and other geo-political unrest could cause disruptions in our business or the business of our public cloud providers, partners, or customers or the economy as a whole. Any disruption in the business of our public cloud providers, partners or end-customers that impacts sales could have a significant adverse impact on our financial results. All of the aforementioned risks may be further increased if the disaster recovery plans for us and our public cloud providers prove to be inadequate. To the extent that any of the above should result in delays or cancellations of customer orders or the loss of customers, our business, financial condition and results of operations would be adversely affected.

General Risk Factors

Fluctuating economic conditions make it difficult to predict revenue for a particular period, and a shortfall in revenue may harm our business and operating results.

Our revenue depends significantly on general economic conditions and the demand for solutions and services in the IT security market. Economic weakness, customer financial difficulties, and constrained spending on IT security may result in decreased revenue and earnings.

In addition, concerns regarding the effects of Brexit, uncertainties related to changes in public policies such as domestic and international regulations, taxes, or international trade agreements, international trade disputes, government shutdowns, geopolitical turmoil and other disruptions to global and regional economies and markets in many parts of the world, have and may continue to put pressure on global economic conditions and 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 uncertainty in worldwide credit markets, including the sovereign debt situation in certain countries in the EU may adversely impact the ability of our customers to adequately fund their expected capital expenditures, which could lead to delays or cancellations of planned purchases of our platform.

The COVID-19 pandemic has created significant uncertainty in the global economy. The COVID-19 pandemic and health measures taken by governments and private industry in response to the pandemic, including stay-at-home orders and travel restrictions, have had significant negative effects on the economy. Continued uncertainty about the pandemic, associated economic consequences, and potential relief measures may have a long-term adverse effect on the economy, our customers, partners, suppliers, and our business.

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 solutions, subscriptions and services and consequently on our business, financial condition and results of operations.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our results of operations could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in our stock price.

The preparation of financial statements in conformity with 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 entitled “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, revenue and expenses that are not readily apparent from other sources. In general, if our estimates, judgments or assumptions related to our critical accounting policies change or if actual circumstances differ from our estimates, judgments or assumptions, our results of operations may be adversely affected and could fall below our publicly announced guidance or the expectations of securities analysts and investors, which may result in a decline in our stock price. Significant assumptions and estimates used in preparing our consolidated financial statements include those related to assets, liabilities, revenue, expenses and related disclosures.

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

In general, under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change net operating losses, or NOLs, to offset future taxable income. Our existing NOLs may be subject to limitations arising from previous ownership changes. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Code and adversely affect our ability to utilize our NOLs in the future. Furthermore, our ability to utilize NOLs of companies that we may acquire in the future may be subject to limitations. There is also a risk that due to regulatory changes, such as suspensions on the use of NOLs, or other unforeseen reasons, our existing NOLs could expire or otherwise be unavailable to offset future income tax liabilities. For example, the Tax Act, as modified by the CARES Act, changed certain limitations on our ability to use our federal NOLs, and California recently enacted legislation limiting our ability to use our state NOLs for taxable years 2020, 2021, and 2022. For these reasons, we may not be able to utilize a material portion of the NOLs reflected on our balance sheet, even if we attain profitability.

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

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the listing requirements of Nasdaq and other applicable securities rules and regulations. Compliance with these rules and regulations has increased and will continue to increase our legal, administrative and financial compliance costs, has made and will continue to make some activities more difficult, time-consuming or costly, and has increased and will continue to increase demand on our systems and resources. Among other things, the Exchange Act requires that we file annual, quarterly and current reports with respect to our business and results of operations and maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this standard, significant resources and management oversight may be required. As a result, management’s

attention may be diverted from other business concerns, which could harm our business and results of operations. Although we have already hired additional employees to comply with these requirements, we may need to hire even more employees in the future, which will increase our costs and expenses.

We are subject to the independent auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act ("Section 404"), enhanced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. While we were able to determine in our management's report for fiscal 2021 that our internal control over financial reporting is effective, as well as provide an unqualified attestation report from our independent registered public accounting firm to that effect, we have and will continue to consume management resources and incur significant expenses for Section 404 compliance on an ongoing basis. Changes to our business applications, processes and IT infrastructure to support our business needs, including the implementation of our planned new ERP system, may require the design of new controls subject to attestation. In the event that our Chief Executive Officer, Chief Financial Officer, or independent registered public accounting firm determines in the future that our internal control over financial reporting is not effective as defined under Section 404, we could be subject to one or more investigations or enforcement actions by state or federal regulatory agencies, stockholder lawsuits or other adverse actions requiring us to incur defense costs, pay fines, settlements or judgments and causing investor perceptions to be adversely affected and potentially resulting in a decline in the market price of our common stock.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs, and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations, and standards, and this investment will increase our general and administrative expense and a diversion of management’s time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations, and standards are unsuccessful, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

We also expect that these new rules and regulations will make it more expensive for us to obtain and maintain director and officer liability insurance, and in the future, we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified executive officers and members of our board of directors, particularly to serve on our audit committee and compensation committee.

In addition, as a result of our disclosure obligations as a public company, we have reduced strategic flexibility and are under pressure to focus on short-term results, which may adversely impact our ability to achieve long-term profitability.

We are obligated to maintain proper and effective internal control over financial reporting. We may not complete our analysis of our internal control over financial reporting in a timely manner, or this internal control may not be determined to be effective, which may adversely affect investor confidence in our Company and, as a result, the value of our common stock.

We are required, pursuant to the Exchange Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting, as well as a statement that our auditors have issued an attestation report on our internal controls.

While we were able to determine in our management's report for fiscal 2021 that our internal control over financial reporting is effective, as well as provide an unqualified attestation report from our independent registered public accounting firm to that effect, we may not be able to complete our evaluation, testing, and any required remediation in a timely fashion or our independent registered public accounting firm may not be able to formally attest to the effectiveness of our internal control over financial reporting in the future. During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting that we are unable to remediate before the end of the same fiscal year in which the material weakness is identified, we will be unable to assert that our internal controls are effective. If we are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to attest to the effectiveness of our internal controls or determine we have a material weakness in our internal controls, we could lose investor confidence in the accuracy and completeness of our financial reports, which would cause the price of our common stock to decline.

Increased scrutiny of our environmental, social or governance responsibilities may result in additional costs and risks, and may adversely impact our reputation, employee retention, and willingness of customers and suppliers to do business with us.

Investor advocacy groups, institutional investors, investment funds, proxy advisory services, stockholders, and customers are increasingly focused on environmental, social and governance (“ESG”) practices of companies. Additionally, public interest and legislative pressure related to public companies’ ESG practices continues to grow. If our ESG practices fail to meet regulatory requirements or investor or other industry stakeholders' evolving expectations and standards for responsible corporate citizenship in areas including environmental stewardship, support for local communities, Board of Director and employee diversity, human capital

management, employee health and safety practices, product quality, supply chain management, corporate governance and transparency and employing ESG strategies in our operations, our brand, reputation and employee retention may be negatively impacted and customers and suppliers may be unwilling to do business with us. In addition, as we work to align our ESG practices with industry standards, we will likely continue to expand our disclosures in these areas and doing so may result in additional costs and require additional resources to monitor, report, and comply with our various ESG practices. If we fail to adopt ESG standards or practices as quickly as stakeholders desire, report on our ESG efforts or practices accurately, or satisfy the expectations of stakeholders, our reputation, business, financial performance and growth may be adversely impacted.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters is located in Reston, Virginia where we currently lease approximately 47,000 square feet of space under lease agreements that expire during the year ended December 31, 2027. We maintain additional offices throughout the United States and various international locations, including, but not limited to, Australia, Dubai, Germany, India, Ireland, Japan, Singapore and the United Kingdom. We believe that our current facilities are adequate to meet our ongoing needs, and that, if we require additional space, we will be able to obtain additional facilities on commercially reasonable terms.

Item 3. Legal Proceedings

The information set forth under "Litigation" in Note 12 contained in the "Notes to Consolidated Financial Statements" in Part II, Item 8 of this Annual Report on Form 10-K is incorporated herein 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, $0.0001 par value per share, began trading on The NASDAQ Global Select Market on September 20, 2013, where its prices are quoted under the symbol “MNDT”.

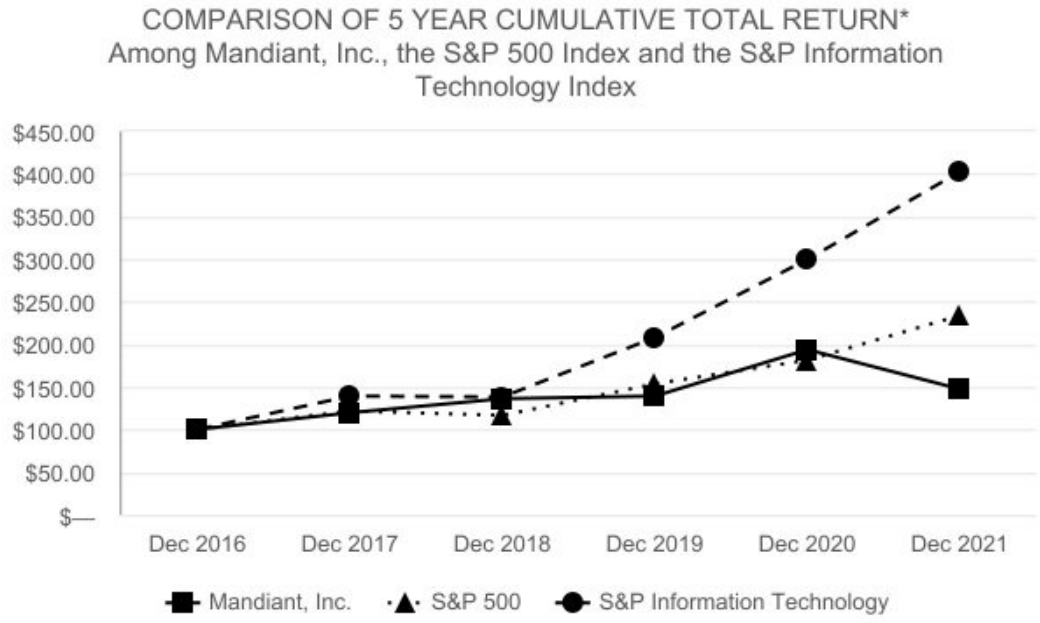
Holders of Record

As of December 31, 2021, there were 102 holders of record of our common stock. Because many of our shares 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.

Stock Performance Graph

The following performance graph shall not be deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any of our filings under the Securities Act of 1933, as amended ("the Exchange Act"), except as shall be expressly set forth by specific reference in such filing.

The following graph compares the cumulative total return of our common stock with the total return for the Standard & Poor's 500 Index and the Standard & Poor's Information Technology Index from December 31, 2016 through December 31, 2021. The graph assumes that $100 was invested on December 31, 2016 in our common stock, the Standard & Poor's 500 Index and the Standard & Poor's Information Technology Index, and assumes reinvestment of any dividends. The stock price performance on the following graph is not necessarily indicative of future stock price performance.



	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021
Mandiant, Inc.	$ 100.00	$ 119.33	$ 136.22	$ 138.91	$ 193.78	$ 147.39
S&P 500	$ 100.00	$ 121.83	$ 116.49	$ 153.17	$ 181.35	$ 233.41
S&P Information Technology	$ 100.00	$ 138.83	$ 138.43	$ 208.05	$ 299.37	$ 402.73

Dividend Policy

We have never declared or paid, and do not anticipate declaring or paying in the foreseeable future, any cash dividends on our capital stock. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors, subject to applicable laws, and will depend on then existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects, and other factors our board of directors may deem relevant.

Recent Sales of Unregistered Securities

There were no sales of unregistered securities during the period covered by this Annual Report on Form 10-K, other than those previously reported in a Quarterly Report on Form 10-Q or in a Current Report on Form 8-K.

Issuer Purchases of Equity Securities

The following table summarizes stock repurchases during the three months ended December 31, 2021 (in thousands, except per share amounts):

Period	Total number of shares purchased[1]	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs[1]	Maximum number (or approximate dollar value) of shares that may yet be purchased under the plans or programs[1]
October 1, 2021 – October 31, 2021	—	—	—	
November 1, 2021 – November 30, 2021	4,291	$ 17.81	4,291	
December 1, 2021 – December 31, 2021	7,235	17.05	7,235	$ 200,000
Total	11,526		11,526	

(1) On June 2, 2021, we announced a stock repurchase program for the repurchase of up to $500 million of our common stock. There is no expiration date on this authorization and we may suspend, amend or discontinue the repurchase program at any time.

Securities Authorized for Issuance Under Equity Compensation Plans

See Part III, Item 12 of this Annual Report on Form 10-K regarding information about securities authorized for issuance under our equity compensation plans.

Item 6. Reserved

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. The following discussion focuses on our 2021 *and* 2020 *financial condition and results of operations, including comparisons of the years ended December 31, 2021 and* 2020*. For discussion and analysis related to our financial condition and results of operations for fiscal year* 2019*, including comparisons of the years ended December 31,* 2020 *and* 2019*, refer to Part II, Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for fiscal year* 2020*, which was filed with the Securities and Exchange Commission on February 26, 2021.*

In addition to historical financial information, the following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those contained in or implied by any forward-looking statements. Factors that could cause or contribute to these differences include those under "Risk Factors" included in Part I, Item 1A or in other parts of this Annual Report on Form 10-K.

Overview

We provide a broad portfolio of cybersecurity solutions and services that allow organizations to prepare for, prevent, respond to, investigate and remediate cyber-attacks. Our portfolio includes threat intelligence, security validation, attack surface management and automated alert investigation integrated in the Mandiant Advantage platform, managed services and consulting services.

On October 8, 2021, we completed the previously announced sale of the FireEye Products business to Magenta Buyer LLC ("Trellix"), which is backed by a consortium led by Symphony Technology Group, in exchange for total cash consideration of $1.2 billion, subject to certain purchase price adjustments, and assumption of certain liabilities of the FireEye Products business as specified in the Purchase Agreement, as amended by an Amendment to the Asset Purchase Agreement entered into on October 8, 2021. As a result, all periods presented in our consolidated financial statements and other portions of this Annual Report on Form 10-K have been conformed to present the FireEye Products business as discontinued operations and the related assets and liabilities were classified as held for sale for all comparative periods presented.

In March 2020, the World Health Organization declared the novel coronavirus disease (COVID-19) a global pandemic. The pandemic has impacted, and could further impact, our operations and the operations of our customers as a result of quarantines, various local, state and federal government public health orders, facility and business closures, supply chain shortages, vaccination mandates, and travel and logistics restrictions. With our COVID-19 safety plans, work-from-home and return-to-office policies and restricted employee travel to essential, business-critical trips, we were able to maintain strong customer relationships and deliver our technology-enabled managed and professional services to customers without interruption. As a result, we did not incur significant disruptions to our operations during the year ended December 31, 2021 due to the pandemic.

In January 2022, the U.S. Supreme Court struck down the U.S. Department of Labor's Occupational Safety and Health Administration ("OSHA") Emergency Temporary Standard (the "ETS") requiring that all employers with at least 100 employees ensure that their U.S. employees are fully vaccinated for COVID-19. Following that ruling, OSHA chose to withdraw the vaccine ETS altogether. In addition, the federal district court in Georgia stayed the enforcement of the mandatory employee COVID-19 vaccination requirement found in President Biden's Executive Order for U.S. government contractors and their subcontractors (the "Executive Order"). As a result, we revised our COVID-19 policy to only require COVID-19 vaccination for employees or visitors that will be entering any of Mandiant's U.S. office locations. We are also complying with the other aspects of the Executive Order for federal government contractors at our covered contractor workplaces that have not been stayed by the federal courts. Our implementation and enforcement of vaccination requirements could be difficult, costly, and potentially result in employee attrition, including attrition of key employees, disruptions in workforce performance, and difficulty securing future labor needs, any of which could have a material adverse effect on our business, financial condition, and results of operations.

We anticipate governments and businesses may take additional actions or extend existing actions to respond to the risks of the COVID-19 pandemic. We continue to actively monitor the impacts and potential impacts of the COVID-19 pandemic in all aspects of our business. Although we are unable to predict the impact of the COVID-19 pandemic, including any recurrence of the virus or its variants, on our business, results of operations, liquidity or capital resources at this time, we expect we may be negatively affected if the pandemic and related public health measures further result in substantial manufacturing or supply chain problems, disruptions in local and global economies, volatility in the global financial markets, overall reductions in demand, delays in payment, or other ramifications from the COVID-19 pandemic. For a further discussion of the uncertainties and business risks associated with the COVID-19 pandemic, see the section entitled "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K.

Our Business Model

We generate revenue from Mandiant Solutions. Pursuant to our agreement to sell the FireEye Products business to a consortium led by STG, the revenue from FireEye Products has been included within discontinued operations in our consolidated financial statements for all periods presented. We disaggregate our revenue from Mandiant Solutions into two main categories: (i) platform,

cloud subscription and managed services and (ii) professional services. For the years ended December 31, 2021, 2020 and 2019, platform, cloud subscription and managed services revenue as a percentage of total revenue was 49%, 50% and 49%, respectively. Revenue from professional services was 51%, 50% and 51% of total revenue for December 31, 2021, 2020 and 2019, respectively.

Platform, cloud subscription and managed services

The majority of our platform, cloud subscription and managed services revenue is generated from sales of subscriptions to our Mandiant Advantage platform and modules (including Security Validation, Threat Intelligence and Automated Defense and Attack Surface Management) and managed services that are delivered through the cloud. A majority of the revenue in this category is recognized ratably over the contractual term, generally one to three years.

While our threat intelligence and automated defense modules are only available through the cloud, a portion of our revenue in the platform, cloud subscription and managed services category is derived from term licenses of our Security Validation module deployed on premise, and revenue from these sales is recognized when the license key is issued to the customer. Revenue from the sale of our on-premise Security Validation term licenses continues to decline as we encourage our new and existing customers to migrate their solution to the cloud-based Mandiant Advantage platform for greater flexibility and integration with our Threat Intelligence Attack Surface Management and Automated Defense modules. An increasing number of new Security Validation customers are purchasing subscriptions for the cloud-based Mandiant Advantage Security Validation module, and we expect an increasing number of Security Validation customers to renew on the cloud-based Mandiant Advantage module. Deferred revenue from our platform, cloud subscription and managed services totaled $271.0 million and $182.8 million as of December 31, 2021 and 2020, respectively.

Professional Services

In addition to our platform, cloud subscription and managed services, we offer professional services, including incident response and other strategic security consulting services, to our customers who have experienced a cybersecurity breach or desire assistance assessing and increasing the resilience of their IT environments to cyber-attack. The majority our professional services are offered on a time and materials basis, through a fixed fee arrangement, or on a retainer basis. Revenue from professional services is recognized as services are delivered. Revenue from our Expertise On Demand subscription and some pre-paid professional services is deferred, and revenue is recognized when services are delivered. Deferred revenue from professional services as of December 31, 2021 and 2020 was $139.3 million and $101.5 million, respectively.

Discontinued Operations

Revenue from discontinued operations was generated primarily from sales of network, email, endpoint security, Helix SIEM and Cloudvisory solutions deployed on a customer's premises, either as an integrated security appliance or a distributed hybrid on-premise/private cloud configurations. As a single performance obligation, revenue from sales of appliance hardware and related subscriptions was recognized ratably over the contractual term, typically one to three years. Such contracts typically contained a material right of renewal option that allows the customer to renew their Dynamic Threat Intelligence ("DTI") cloud and support subscriptions for an additional term at a discount to the original purchase price of the single performance obligation. For contracts that contained a material right of renewal option, the value of the performance obligation allocated to the renewal was recognized ratably over the period between the end of the initial contractual term and end of the estimated useful life of the related appliance and license. A small portion of our revenue in the product and related subscription and support revenue related to discontinued operations was derived from the sale of our network forensics appliances and our central management system appliances. These appliances were not dependent on regular security intelligence updates, and revenue from these appliances was therefore recognized when ownership was transferred to our customer, typically at shipment.

Key Business Metrics

We monitor our key business 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. We discuss revenue and gross margin below under "Components of Operating Results." Deferred revenue, annualized recurring revenue, billings (a non-GAAP metric), net cash flow used in operating activities, and free cash flow (a non-GAAP metric) are discussed immediately below the following table (in thousands, except percentages).

	Year Ended or as of December 31,		
	2021	2020	2019
Platform, cloud subscription and managed services revenue	$ 235,077	$ 198,695	$ 163,583
Professional services revenue	248,378	201,014	167,787
Total revenue	$ 483,455	$ 399,709	$ 331,370
Year-over-year percentage increase	21 %	21 %	25 %
Gross margin percentage	47 %	44 %	40 %
Deferred revenue (current and non-current)	$ 410,328	$ 284,253	$ 273,241
Annualized recurring revenue	$ 278,819	$ 226,451	$ 196,014
Billings (non-GAAP)	$ 609,530	$ 408,057	$ 369,879
Net cash used in operating activities - continuing operations	$ (62,389)	$ (100,409)	$ (120,786)
Net cash provided by operating activities - discontinued operations	$ 124,345	$ 195,304	$ 188,323
Net cash provided by operating activities	$ 61,956	$ 94,895	$ 67,537
Free cash flow (non-GAAP) (continuing operations)	$ (87,925)	$ (118,337)	$ (150,135)

Deferred revenue. Our deferred revenue consists of amounts that we have the right to invoice but have not yet been recognized into revenue as of the end of the respective period. We monitor our deferred revenue balance because it represents a significant portion of revenue to be recognized in future periods. The majority of our deferred revenue consists of the unamortized balance of deferred revenue from previously invoiced sales of our security validation platforms, threat intelligence, consulting services and managed detection and response services and excludes deferred revenue from discontinued operations included in liabilities held for sale. Invoiced amounts for such contracts can be for multiple years, and we classify our deferred revenue as current or non-current depending on when we expect to recognize the related revenue. If the deferred revenue is expected to be recognized within 12 months it is classified as current, otherwise, the deferred revenue is classified as non-current. A table for our deferred revenue is provided below (in thousands):

	As of December 31,	
	2021	2020
Deferred revenue, current	$ 307,611	$ 226,356
Deferred revenue, non-current	102,717	57,897
Total deferred revenue	$ 410,328	$ 284,253

Annualized recurring revenue. Annualized recurring revenue ("ARR") is an operating metric and represents the annualized revenue run-rate of active term licenses, subscriptions, managed services and support contracts at the end of a reporting period. ARR should be viewed independently of revenue and deferred revenue as ARR is an operating metric and is not intended to be combined with or replace revenue or deferred revenue. ARR is not a forecast of future revenue, which can be impacted by contract start and end dates and renewal rates, and does not include revenue from consumption-based contracts or professional services except for service level agreement payments. We consider ARR a useful measure of the value of the recurring components of our business because it reflects both our ability to attract new customers for our solutions and our success at retaining and expanding our relationships with existing customers. Further, ARR is not impacted by variations in contract length, enabling more meaningful comparison to prior periods as we align our invoicing practices to growing customer preference for annual billing on multi-year contracts. We started including ARR from service level agreement payments in our ARR calculation starting in 2020 once they became material. ARR calculations for 2019 have been updated for comparative purposes. A table for our ARR is provided below (in thousands):

	As of December 31,		
	2021	2020	2019
Platform, cloud subscription and managed services	$ 268,662	$ 219,811	$ 191,477
Professional services	10,157	6,641	4,537
Total annualized recurring revenue	$ 278,819	$ 226,452	$ 196,014

Billings. Billings are a non-GAAP financial metric that we define as revenue recognized in accordance with generally accepted accounting principles ("GAAP") plus the change in deferred revenue from the beginning to the end of the period, excluding deferred revenue assumed through acquisitions. We monitor billings as a supplement to revenue (the corresponding GAAP measure), because billings impact our deferred revenue, which is an important indicator of the health and visibility of trends in our business and represents a significant percentage of future revenue. However, it is important to note that other companies, including companies in our industry, may not use billings, may define billings differently, may have different billing frequencies, or may use other financial measures to evaluate their performance, all of which could reduce the usefulness of billings as a comparative measure. Additionally, the calculated billings metric represents the total contract value we have the right to invoice, which includes multi-year subscriptions to our solutions as well as commitments for future service engagements. Calculated billings are impacted by changes in average contract length, thereby reducing the usefulness of comparisons to prior periods. Unlike subscription revenue, which is recognized ratably over a contract term, services revenue is recognized when services are delivered, making calculated services billings less useful as a measure of current business activity.

A reconciliation of billings to revenue, the most directly comparable financial measure calculated and presented in accordance with GAAP, is provided below (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Revenue	$ 483,455	$ 399,709	$ 331,370
Add: Deferred revenue, end of period	410,328	284,253	273,241
Less: Deferred revenue, beginning of period	(284,253)	(273,241)	(231,982)
Less: Deferred revenue assumed through acquisitions	—	(2,664)	(2,750)
Billings (non-GAAP)	$ 609,530	$ 408,057	$ 369,879

We have provided disaggregation of billings below (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Platform, cloud subscription and managed services	$ 323,319	$ 195,357	$ 175,870
Professional services	286,211	212,700	194,009
Billings (non-GAAP)	$ 609,530	$ 408,057	$ 369,879

Net cash provided by operating activities - continuing operations. We monitor net cash provided by operating activities as a measure of our overall business performance. Our net cash provided by operating activities performance is driven in large part by sales of our offerings in the platform, cloud subscription, managed services category and professional services and from up-front payments for both subscriptions and services. Monitoring net cash used in operating activities enables us to analyze our financial performance without the non-cash effects of certain items, such as depreciation, amortization and stock-based compensation costs, thereby allowing us to better understand and manage the cash needs of our business.

Free cash flow. Free cash flow is a non-GAAP financial measure we define as net cash used in operating activities, the most directly comparable GAAP financial measure, less purchases of property and equipment. We consider free cash flow to be a liquidity measure that provides useful information to management and investors about the amount of cash generated by our business that, after the purchases of property and equipment, can be used by us for strategic opportunities, including investing in our business, making strategic acquisitions, debt repayment, strengthening our balance sheet and share repurchases. However, it is important to note that other companies, including companies in our industry, may not use free cash flow, may calculate free cash flow differently, or may use other financial measures to evaluate their performance, all of which could reduce the usefulness of free cash flow as a comparative measure. A reconciliation of free cash flow to cash flow used in operating activities is provided below (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Net cash used in operating activities - continuing operations	$ (62,389)	$ (100,409)	$ (120,786)
Less: purchase of property and equipment	(25,536)	(17,928)	(29,349)
Free cash flow (non-GAAP) - continuing operations	$ (87,925)	$ (118,337)	$ (150,135)
Net cash provided by (used in) investing activities - continuing operations	$ 705,752	$ (22,291)	$ (105,276)
Net cash provided by (used in) financing activities - continuing operations	$ (273,393)	$ 319,114	$ 26,273

Factors Affecting our Performance

Market Adoption. We rely on market education to raise awareness of today's cyber-attacks and articulate the need for our solutions and services. Although our security validation and automated defense solutions address significant challenges experienced by customers when implementing effective cybersecurity safeguards – challenges that include an expanding attack surface from remote workers and digital transformation, proliferation of nation state-sponsored attackers, and an acute shortage of cybersecurity talent – the markets for these solutions are in the early stages of development. As a result, our prospective customers may not have a specific portion of their IT budgets allocated for our advanced security solutions.

We invest heavily in sales and marketing efforts to increase market awareness, educate prospective customers and drive adoption of our solutions and services. Additionally, our consultants use our technology in their engagements, allowing customers to witness the features and capabilities of their IT environments. This market education is critical to creating new IT budget dollars or allocating more of existing IT budget dollars to cybersecurity in general and specifically our security validation and security automation solutions. The degree to which prospective customers recognize the mission critical need for our solutions will drive our ability to acquire new customers and increase renewals and follow-on sales opportunities, which, in turn, will affect our future financial performance.

Sales Productivity. Our sales organization consists of in-house sales teams who work in collaboration with external channel partners to identify new sales prospects, sell additional products, subscriptions and services, and provide post-sale support. Our direct sales teams are organized by territory to target large enterprise and government customers who typically have sales cycles that can last several months or more. We have also expanded our inside sales teams to work with channel partners to expand our customer base of small and medium enterprises, or SMEs, as well as manage renewals of subscription and support contracts.

Newly hired sales and marketing employees typically require several months to establish prospect relationships and achieve full sales productivity. In addition, although we believe our investments in market education have increased awareness of us and our solutions globally, sales teams in certain international markets may face local markets with limited awareness of us and our solutions, or have customer-specific requirements that are not available with our solutions. These factors will influence the timing and overall levels of sales productivity, impacting the rate at which we will be able to convert prospects to sales and drive revenue growth.

Customer Acquisition and Retention. Since we expect that our existing customers are likely to expand their deployments and purchase additional solutions from us over time, we believe new customer acquisition and retention thereafter of existing customers is essential to expanding the value of our installed base, which we monitor through our key business metrics, including annualized recurring revenue. We believe our ability to maintain strong customer retention and drive new customer acquisition will have a material impact on future sales of our security solutions and services and therefore our future financial performance.

Follow-On Sales. To grow our revenue, it is important that our customers make additional purchases of our solutions and services. After the initial sale to a new customer, we focus on expanding our relationship with the customer to sell additional modules available on the Mandiant Advantage platform as well as add additional services. Sales to our existing customer base can take the form of incremental sales of our solutions, managed services, and consulting services either to expand their deployment of our technologies, to extend their internal security resources with our managed and professional security services, or to continuously measure the effectiveness of their security controls. Our opportunity to expand our customer relationships through follow-on sales will increase as we demonstrate the utility of our solutions, broaden our security solutions portfolio with additional subscriptions and services and enhance the functionality of our existing solutions. Follow-on sales lead to increased revenue over the lifecycle of a customer relationship and can significantly increase the return on our sales and marketing investments. With many of our large enterprise and government customers, we have realized follow-on sales that were multiples of the value of their initial purchases.

Components of Operating Results

As a result of the sale of the FireEye Products business, all periods presented in this Form 10-K have been conformed to present the FireEye Products business as discontinued operations. We report the financial results of discontinued operations separately from continuing operations to distinguish the financial impact of disposal transactions from ongoing operations. The results of operations and cash flows of a discontinued operation are restated for all comparative periods presented. Refer to Note 2, "Discontinued Operations," to our consolidated financial statements for further information.

Revenue

We generate revenue from the sales of our Mandiant solutions and services. Revenue is recognized when a contract has been entered into with a customer, the performance obligation(s) is (are) identified, the transaction price is determined and has been

allocated to the performance obligation(s) and only then for each performance obligation after we have satisfied that performance obligation.

- *Platform, cloud subscription and managed services revenue*. The majority of our platform, cloud subscription and managed services revenue is generated from sales of subscriptions to our Mandiant Advantage platform and modules (security validation, threat intelligence, and automated defense) and to our managed services that are delivered through the cloud and is recognized over the term of the contract. A small portion of our revenue in the platform, cloud subscription and managed services category is derived from sales of on premise term licenses to our security validation platform, and revenue from these sales is recognized when the license key is issued to the customer.
- *Consulting services revenue*. Consulting services, which includes incident response, security assessments, and other strategic security consulting services, are offered on a time-and-material basis, through a fixed fee arrangement, or on a retainer basis. We recognize the associated revenue as the services are delivered. Some consulting services and our expertise-on-demand subscription are prepaid, and revenue is deferred until services are delivered.

Cost of Revenue

Our total cost of revenue consists of cost of cloud and managed service revenue and cost of consulting services revenue.

- *Cost of platform, cloud subscription and managed services revenue.* Cost of platform, cloud subscription and managed services revenue primarily consists of personnel costs associated with maintaining our threat intelligence and delivering our managed services, hosting costs paid to third party cloud platform providers, and allocated overhead costs. Personnel costs associated with maintaining our threat intelligence and delivering our managed services consist of salaries, benefits, bonuses and stock-based compensation. Overhead costs consist of certain facilities, depreciation and information technology costs. If revenue from sales of our cloud and managed services declines, the cost of platform, cloud subscription and managed services revenue may increase as a percentage of cloud and managed services revenue due to the fixed nature of a portion of these costs.
- *Cost of consulting services revenue.* Cost of consulting services revenue primarily consists of personnel costs for our services organization and allocated overhead costs. If sales of our consulting services decline or we are unable to maintain our chargeability or billing rates, our cost of consulting services revenue may increase as a percentage of consulting services revenue.

Gross Margin

Gross margin, or gross profit as a percentage of revenue, has been and will continue to be affected by a variety of factors, including the mix between platform, cloud subscription and managed services and professional services revenue, the mix of incident response and other strategic security consulting, and the amount of reimbursable travel expenses. We expect our gross margins to fluctuate slightly depending on these factors, but increase over time with expected growth and higher mix of platform, cloud subscription and managed services revenue compared to professional services revenue.

Although FireEye products revenue is included in discontinued operations, indirect overhead costs are not allocated to the discontinued operations as they are not direct costs of the FireEye Product business, resulting in a decrease in gross margins.

Operating Expenses

Our operating expenses consist of research and development, sales and marketing and general and administrative expenses. Personnel costs are the most significant component of operating expenses and consist of salaries, benefits, bonuses, stock-based compensation and, with regard to sales and marketing expense, sales commissions. Operating expenses also include allocated overhead costs consisting of certain facilities, depreciation and information technology costs.

Operating expenses for continuing operations include the full cost of resources shared by Mandiant solutions and FireEye Products. Following the completion of the divestiture, we are being reimbursed for the cost of shared resources associated with supporting the FireEye Products business under the Transition Services Agreement ("TSA").

- *Research and development.* Research and development expense consists primarily of personnel costs and allocated overhead. Research and development expense also includes certain costs associated with delivering our threat intelligence through our Mandiant Advantage platform that were included in cost of goods sold before the Mandiant Advantage platform became generally available. We expect research and development expense to increase in terms of absolute dollars and decrease slightly as a percentage of total revenue.
- *Sales and marketing*. Sales and marketing expense consists primarily of personnel costs, incentive commission costs and allocated overhead. Commission costs are capitalized and amortized over the expected period of benefit, taking into consideration the pattern of transfer to which the asset relates and the expected renewal period. When commissions paid for initial contracts are higher than those paid for renewal contracts, the initial commissions are not commensurate and as such, are recognized over the expected period of benefit, which we generally estimate to be three years. Renewal commissions are generally amortized over the renewal period.

Sales and marketing expense also includes costs for market development programs, promotional and other marketing activities, travel, and outside consulting costs. These costs are recognized as incurred. We expect sales and marketing expense to increase in absolute dollars and remain relatively constant as a percentage of total revenue.

- *General and administrative*. General and administrative expense consists of personnel costs, professional service costs and allocated overhead. General and administrative personnel include our executive, finance, human resources, facilities and legal organizations. Professional service costs consist primarily of legal, auditing, accounting and other consulting costs. We expect general and administrative expense to decrease in terms of absolute dollars and decrease as a percentage of total revenue after the divestiture of FireEye Product business and the cost of shared resources associated with FireEye Product business is reimbursed under the TSA.
- *Restructuring Charges.* In the fiscal years 2021 and 2020, we implemented restructuring plans designed to align our resources with the strategic initiatives of the business. These restructuring plans resulted in a reduction of our total workforce as well as the exiting and downsizing of certain real estate facilities, including the decommissioning of our Milpitas, California office space and relocation of our corporate headquarters to Reston, Virginia, and the impairment of certain assets. The expenses incurred primarily consisted of employee severance charges and other termination benefits, as well as real estate and related fixed asset charges for the consolidation or exiting of certain leased facilities.

Interest Income

Interest income consists of interest earned on our cash and cash equivalent and investment balances. We have historically invested our cash in money-market funds and other short-term, high quality securities. We expect interest income to vary each reporting period depending on our average cash and cash equivalent and investment balances during the respective reporting periods, types and mix of investments and market interest rates.

Interest Expense

Interest expense consists primarily of interest at the stated rate (coupon) and amortization of discounts and issuance costs relating to our convertible notes. We expect interest expense to decrease as a result of the expected repurchase of our Series B Notes in June of 2022 as well as due to the adoption of ASU No. 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity in 2022 as described in Note 1 to the accompanying consolidated financial statements.

Other Income (Expense), Net

Other income (expense), net includes gains or losses from the sale of discontinued operations, gains or losses on the disposal of fixed assets, gains or losses from our equity-method investment, gains or losses on the extinguishment of convertible notes, foreign currency re-measurement gains and losses and foreign currency transaction gains and losses. We expect other income (expense), net to fluctuate primarily as a result of foreign exchange rate movements.

Provision for (Benefit from) Income Taxes

Provision for (benefit from) income taxes relates primarily to income taxes payable in foreign jurisdictions where we conduct business, withholding taxes, and state income taxes in the United States. The provision is offset by tax benefits primarily related to the reversal of valuation allowances previously established against our deferred tax assets. Should the tax benefits exceed the provision, then a net tax benefit from income taxes is reflected for the period. Income in certain countries may be taxed at statutory tax rates that are lower than the U.S. statutory tax rate. As a result, our overall effective tax rate over the long-term may be lower than the U.S. federal statutory tax rate due to net income being subject to foreign income tax rates that are lower than the U.S. federal statutory rate.

Net Income (Loss) from Discontinued Operations

As more fully described in Note 2 to the accompanying consolidated financial statements, on October 8, 2021, we completed the sale of FireEye Products business and received approximately $1.2 billion in cash. As a result, the historical results of operations for the FireEye Products business have been included within discontinued operations in our consolidated financial statements.

Results of Operations

The following tables summarize our results of operations for the periods presented and as a percentage of our total revenue for those periods. The period-to-period comparison of results is not necessarily indicative of results for future periods.

	Year Ended December 31,		
	2021	2020	2019
	(In thousands)		
Revenue:			
Platform, cloud subscription and managed services	$ 235,077	$ 198,695	$ 163,583
Professional services	248,378	201,014	167,787
Total revenue	483,455	399,709	331,370
Cost of revenue:			
Platform, cloud subscription and managed services	111,915	107,872	101,793
Professional services	142,477	117,645	98,512
Total cost of revenue	254,392	225,517	200,305
Total gross profit	229,063	174,192	131,065
Operating expenses:			
Research and development	166,893	122,045	103,063
Sales and marketing	262,643	224,357	237,077
General and administrative	121,134	106,347	119,435
Restructuring charges	34,576	21,084	10,264
Total operating expenses	585,246	473,833	469,839
Operating loss	(356,183)	(299,641)	(338,774)
Interest income	5,419	11,325	22,017
Interest expense	(59,333)	(60,066)	(61,927)
Other expense, net	1,378	(496)	(1,775)
Loss before income taxes from continuing operations	(408,719)	(348,878)	(380,459)
Provision (benefit) for income taxes	3,381	460	(17,539)
Loss from continuing operations	(412,100)	(349,338)	(362,920)
Net income from discontinued operations, net of income taxes	1,328,241	142,037	105,511
Net income (loss)	$ 916,141	$ (207,301)	$ (257,409)

	Year Ended December 31,		
	2021	2020	2019
	(Percent of total revenue)		
Revenue:			
Product, subscription and support	49 %	50 %	49 %
Professional services	51	50	51
Total revenue	100	100	100
Cost of revenue:			
Product, subscription and support	23	27	30
Professional services	29	29	30
Total cost of revenue	52	56	60
Total gross profit	48	44	40
Operating expenses:			
Research and development	35	31	31
Sales and marketing	54	56	72
General and administrative	25	27	36
Restructuring charges	7	5	3
Total operating expenses	121	119	142
Operating loss	(73)	(75)	(102)
Interest income	1	3	7
Interest expense	(12)	(15)	(19)
Other expense, net	—	—	(1)
Loss before income taxes	(84)	(87)	(115)
Provision (benefit) for income taxes	1	—	(5)
Loss from continuing operations	(85)	(87)	(110)
Net income from discontinued operations, net of income taxes	275	35	32
Net income (loss)	190 %	(52)%	(78)%

Comparison of the Years Ended December 31, 2021 and 2020

Revenue

	Year Ended December 31,					
	2021		2020		Change	
	Amount	% of Total Revenue	Amount	% of Total Revenue	Amount	%
	(Dollars in thousands)					
Revenue:						
Platform, cloud subscription and managed services	$ 235,077	49 %	$ 198,695	50 %	$ 36,382	18 %
Professional services	248,378	51	201,014	50	47,364	24
Total revenue	$ 483,455	100 %	$ 399,709	100 %	$ 83,746	21
Revenue by geographic region:						
United States	$ 331,301	69 %	$ 280,888	70 %	$ 50,413	18 %
EMEA	66,424	14	51,249	13	15,175	30
APAC	49,518	10	36,615	9	12,903	35
Other	36,212	7	30,957	8	5,255	17
Total revenue	$ 483,455	100 %	$ 399,709	100 %	$ 83,746	21

Platform, cloud subscription and managed services revenue increased by $36.4 million, or 18%, during the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase in platform, cloud subscription and managed services revenue reflected increased recognition of deferred revenue associated with sales of our threat intelligence and security validation modules of the Mandiant Advantage platform and our Managed Defense managed security services.

Professional services revenue increased by $47.4 million, or 24%, during the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase was primarily driven by an increase in number of engagements enabled by an increase in professional services personnel and an increase in mix of incident response services with higher rates per hour as compared to the same period in 2020.

Our international revenue increased $33.3 million, or 28%, during the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase reflects growth in sales of our platform, cloud subscription and managed services and an increase in the number of professional services engagements in certain international regions compared to prior periods.

Cost of Revenue and Gross Margin

	Year Ended December 31,					
	2021		2020		Change	
	Amount	Gross Margin	Amount	Gross Margin	Amount	%
	(Dollars in thousands)					
Cost of revenue:						
Platform, cloud subscription and managed services	$ 111,915		$ 107,872		$ 4,043	4 %
Professional services	142,477		117,645		24,832	21
Total cost of revenue	$ 254,392		$ 225,517		$ 28,875	13
Gross margin:						
Platform, cloud subscription and managed services		52 %		46 %		
Professional services		43		41		
Total gross margin		47 %		44 %		

The cost of platform, cloud subscription and managed services revenue increased $4.0 million, or 4%, during the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase in cost of platform, cloud subscription and managed services revenue was primarily due to an increase of $9.0 million in payroll costs due to an increase in headcount, an increase of $3.2 million pertaining to hosting services, an increase of $3.0 million in stock-based compensation expense and an increase of $2.5 million

in amortization of intangibles, partially offset by a $13.7 million decrease in shared services, such as facility and IT support costs from our restructuring and cost optimization plans.

The cost of professional services revenue increased by $24.8 million, or 21%, during the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase in professional services revenue was primarily due to an increase of $20.5 million in employee costs due to an increase in headcount, an increase of $7.2 million in stock-based compensation expense and an increase of $1.5 million in consulting and temporary staffing, partially offset by a $5.7 million decrease in shared services.

Gross profit margin increased by 3% as a percentage of revenue for the year ended December 31, 2021 compared to the year ended December 31, 2020. Platform, cloud subscription and managed services gross profit margin increased by 8% compared to the same period in 2020, primarily due to continued efforts to reduce overhead expenses as well as changing the method of delivery of intelligence and reports to be at scale rather than individualized customer delivery. Professional services gross margin increased 2% compared to the same period in 2020.

Operating Expenses

	Year Ended December 31,					
	2021		2020		Change	
	Amount	% of Total Revenue	Amount	% of Total Revenue	Amount	%
	(Dollars in thousands)					
Operating expenses:						
Research and development	$ 166,893	35 %	$ 122,045	31 %	$ 44,848	37 %
Sales and marketing	262,643	54	224,357	56	38,286	17
General and administrative	121,134	25	106,347	27	14,787	14
Restructuring	34,576	7	21,084	5	13,492	64
Total operating expenses	$ 585,246	121 %	$ 473,833	119 %	$ 111,413	24
Includes stock-based compensation expense of:						
Research and development	$ 36,535		$ 23,943			
Sales and marketing	42,161		36,428			
General and administrative	34,676		25,176			
Restructuring	40		314			
Total	$ 113,412		$ 85,861			

Research and Development

Research and development expense increased $44.8 million, or 37%, during the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase was primarily due an increase of $14.7 million in shared services, such as facility and IT support costs, a $12.6 million increase in stock-based compensation expense, a $12.0 million increase in employee costs due to an increase in headcount and bonuses and a $1.8 million increase in hosting services, partially offset by a $1.7 million increase in the amount of costs capitalized for internally developed software.

Sales and Marketing

Sales and marketing expense increased by $38.3 million, or 17%, during the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase was primarily due to a $14.3 million increase in commission costs and employee costs due to an increase in headcount, a $14.1 million increase in marketing programs, an increase of $5.7 million in stock-based compensation expense, a $2.9 million increase in shared services and a $2.0 million increase in consulting and professional services, partially offset by a $1.5 million decrease in various other expenses.

General and Administrative

General and administrative expense increased by $14.8 million, or 14%, during the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase was primarily due to a $9.5 million increase in stock-based compensation expense, a $7.3 million increase in professional services, consulting and temporary staffing costs and a $2.5 million increase in employee costs, partially offset by $3.9 million of decreases in various other expenses and a $0.6 million decrease in shared services.

Restructuring Charges

During the year ended December 31, 2021, we incurred restructuring charges of approximately $34.6 million, which includes $6.6 million of cash charges primarily consisting of $6.9 million in provision for restructuring charges and $0.3 million in other adjustments. In addition, there are non-cash charges of $27.7 million related to fixed asset and right-of-use asset write-offs and stock-

based compensation. These charges primarily related to the decommissioning of our Milpitas, California office space and relocation of our corporate headquarters to Reston, Virginia.

During the year ended December 31, 2020, we incurred restructuring charges of approximately $21.1 million, which primarily related to employee severance charges and other termination benefits as well as certain facilities exit costs for other outside services under our 2020 restructuring plans.

Interest Income

	Year Ended December 31,		Change	
	2021	2020	Amount	%
	(Dollars in thousands)			
Interest income	$ 5,419	$ 11,325	$ (5,906)	(52)%

Interest income decreased for the year ended December 31, 2021 compared to the year ended December 31, 2020, primarily due to a lower rate of return on balances in our cash and cash equivalents and investments, which was a direct result of the overall lower interest rate environment and our limited duration investment portfolio.

Interest Expense

	Year Ended December 31,		Change	
	2021	2020	Amount	%
	(Dollars in thousands)			
Interest expense	(59,333)	(60,066)	$ 733	(1) %

Interest expense for the year ended December 31, 2021 decreased compared to the year ended December 31, 2020, primarily due to the repurchase of a portion of our convertible notes in June 2020.

Other Expense, Net

	Year Ended December 31,		Change	
	2021	2020	Amount	%
	(Dollars in thousands)			
Other income (expense), net	1,378	(496)	$ 1,874	378 %

Other income (expense), net, for the year ended December 31, 2021 increased primarily due to the gain from the sale of the FireEye Products business and subsequent billing of services under the TSA. Additionally, foreign currency transaction gains and losses improved compared to the year ended December 31, 2020.

Provision for Income Taxes

	Year Ended December 31,	
	2021	2020
	(Dollars in thousands)	
Provision for income taxes	$ 3,381	$ 460
Effective tax rate	(0.8)%	(0.1)%

The provision for income taxes increased for the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase in the provision for income taxes for the year ended December 31, 2021 was primarily due to higher foreign taxes and decreased tax benefits from business combinations as compared to the year ended December 31, 2020. Due to cumulative losses, we maintain a full valuation allowance on all of our U.S. and certain foreign deferred tax assets. The tax expense for the years ended December 31, 2021 and 2020 was primarily comprised of income taxes in foreign jurisdictions and withholding taxes.

Discontinued Operations

	Year Ended December 31,		Change	
	2021	2020	Amount	%
	(Dollars in thousands)			
Net income from discontinued operations	$ 1,328,241	$ 142,037	$ 1,186,204	835 %

On October 8, 2021, we completed the sale of FireEye Products business and received approximately $1.2 billion in cash. As a result, the historical results of operations for the FireEye Products business have been included within discontinued operations in our consolidated financial statements. See Note 2 to the accompanying consolidated financial statements for additional information.

Net income from discontinued operations increased during the year ended December 31, 2021 compared to the year ended December 31, 2020. The increase was primarily due to a $1.2 billion increase in income due to the gain on the divestiture of the FireEye Products business and an $83.5 million decrease in expenses, partially offset by a $131.2 million decrease in revenue.

Net income from discontinued operations for the year ended December 31, 2021 includes a $1.2 billion gain from the sale of the FireEye Products business, net of tax and transaction cost.

Quarterly Results of Operations

The following unaudited quarterly statements of operations data for each of the eight quarters in the period ended December 31, 2021 and 2020 have been prepared on a basis consistent with our audited annual financial statements included in this Annual Report on Form 10-K and include, in our opinion, all normal recurring adjustments necessary for the fair presentation of the financial information contained in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future. The following quarterly financial data should be read in conjunction with our audited financial statements and the related notes included in this Annual Report on Form 10-K.

	Three Months Ended							
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020
	(Dollars in thousands)							
Revenue:								
Platform, cloud subscription and managed services	$ 66,893	$ 60,249	$ 51,936	$ 55,999	$ 56,729	$ 48,613	$ 48,051	$ 45,302
Professional services	65,994	61,721	61,974	58,689	53,544	51,439	49,179	46,852
Total revenue	132,887	121,970	113,910	114,688	110,273	100,052	97,230	92,154
Cost of revenue:								
Platform, cloud subscription and managed services	28,334	28,725	28,243	26,613	28,084	27,431	26,497	25,860
Professional Services	38,343	36,380	35,282	32,472	32,144	29,660	27,049	28,792
Total cost of revenue	66,677	65,105	63,525	59,085	60,228	57,091	53,546	54,652
Total gross profit	66,210	56,865	50,385	55,603	50,045	42,961	43,684	37,502
Operating expenses:								
Research and development	39,244	44,814	40,930	41,905	32,986	31,316	28,665	29,078
Sales and marketing	72,513	65,899	63,018	61,213	57,312	55,459	52,840	58,746
General and administrative	34,003	32,760	29,020	25,351	27,005	24,485	26,349	28,508
Restructuring charges	32,649	—	1,927	—	1,487	822	12,558	6,217
Total operating expenses	178,409	143,473	134,895	128,469	118,790	112,082	120,412	122,549
Operating loss	(112,199)	(86,608)	(84,510)	(72,866)	(68,745)	(69,121)	(76,728)	(85,047)
Interest income	1,184	1,226	1,365	1,644	1,875	2,163	2,863	4,424
Interest expense	(15,044)	(14,903)	(14,762)	(14,624)	(14,511)	(14,353)	(15,356)	(15,846)
Other income (expense), net	1,742	(464)	(471)	571	455	156	(119)	(988)
Loss before income taxes from continuing operations	(124,317)	(100,749)	(98,378)	(85,275)	(80,926)	(81,155)	(89,340)	(97,457)
Provision (benefit) for income taxes	940	498	763	1,180	(1,004)	458	656	350
Loss from continuing operations	(125,257)	(101,247)	(99,141)	(86,455)	(79,922)	(81,613)	(89,996)	(97,807)
Net income from discontinued operations, net of income taxes	1,224,962	33,025	34,445	35,809	41,321	42,494	36,721	21,501
Net income (loss)	1,099,705	(68,222)	(64,696)	(50,646)	(38,601)	(39,119)	(53,275)	(76,306)
Dividend on series A convertible preferred stock	(4,666)	(4,613)	(4,563)	(4,512)	(1,050)	—	—	—
Accretion of series A convertible preferred stock	—	—	—	(82)	(4,653)	—	—	—
Net income (loss) attributable to common stockholders	$ 1,095,039	$ (72,835)	$ (69,259)	$ (55,240)	$ (44,304)	$ (39,119)	$ (53,275)	$ (76,306)
Net income (loss) attributable to common stockholders, basic and diluted:								
Continuing operations	$ (0.55)	$ (0.45)	$ (0.44)	$ (0.39)	$ (0.37)	$ (0.36)	$ (0.41)	$ (0.45)
Discontinued operations	5.18	0.14	0.15	0.15	0.18	0.19	0.17	0.10
Net income (loss) per share attributable to common stockholders, basic and diluted	$ 4.63	$ (0.31)	$ (0.29)	$ (0.24)	$ (0.19)	$ (0.17)	$ (0.24)	$ (0.35)
Weighted average shares used to compute Net income (loss) per share, basic and diluted	236,255	237,168	237,279	234,740	229,203	224,807	221,352	217,789

	Three Months Ended							
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020
	(Percent of total revenue)							
Revenue:								
Platform, cloud subscription and managed services	50%	49 %	46 %	49 %	51 %	49 %	49 %	49%
Professional services	50	51	54	51	49	51	51	51
Total revenue	100	100	100	100	100	100	100	100
Cost of revenue:								
Platform, cloud subscription and managed services	21	24	25	23	26	27	27	28
Professional services	29	30	31	28	29	30	28	31
Total cost of revenue	50	54	56	51	55	57	55	59
Total gross profit	50	46	44	49	45	43	45	41
Operating expenses:								
Research and development	30	37	36	37	30	31	29	32
Sales and marketing	55	54	55	53	52	55	54	64
General and administrative	26	27	25	22	24	25	27	31
Restructuring charges	25	—	2	—	1	1	13	7
Total operating expenses	136	118	118	112	107	112	123	134
Operating loss	(87)	(72)	(74)	(63)	(62)	(69)	(78)	(93)
Interest income	1	1	1	1	2	2	3	5
Interest expense	(11)	(12)	(13)	(13)	(13)	(14)	(16)	(17)
Other income (expense), net	1	—	—	—	—	—	—	(1)
Loss before income taxes from continuing operations	(96)	(83)	(86)	(75)	(73)	(81)	(91)	(106)
Provision (benefit) for income taxes	1	—	1	1	(1)	—	1	—
Loss from continuing operations	(97)	(83)	(87)	(76)	(72)	(81)	(92)	(106)
Net income from discontinued operations, net of income taxes	922	27	30	32	37	42	37	23
Net income (loss)	828	(56)	(57)	(44)	(35)	(39)	(55)	(83)
Dividend on series A convertible preferred stock	(4)	(4)	(4)	(4)	(1)	—	—	—
Accretion of series A convertible preferred stock	—	—	—	—	(4)	—	—	—
Net income (loss) attributable to common stockholders	824%	(60) %	(61)%	(48)%	(40) %	(39) %	(55)%	(83)%

Quarterly Revenue Trends

Our 2021 quarterly revenue increased year-over-year for all periods presented, reflecting increased amortization of revenue from higher deferred revenue compared with the year-ago period, as well as increased capacity in professional services. The increase in deferred revenue was due to increased sales of our cloud-based security solutions, as well as our threat intelligence and managed detection and response services.

Sequentially, our platform, cloud subscription and managed services revenue continued to increase each quarter presented with the exception of the second quarter of 2021 where there was a large mix shift in our Validation business, moving from term revenue (upfront revenue) to more cloud-based revenue (deferred revenue). The overall trend in sequential growth was due to increased amortization of deferred revenue associated with higher deferred revenue, which was primarily due to growth in sales of cloud-based security solutions, threat intelligence, and managed detection and response services, as well as increased professional services revenue.

Quarterly Gross Profit Trends

Consistent with increases in our quarterly revenue, quarterly gross profit increased year-over-year for all periods presented. Gross margin, or gross profit as a percentage of revenue, increased year-over-year in 2021, with the exception of the second quarter of 2021, which decreased year-over-year due to the large shift in revenue mix and increased spending in professional services. The overall trend in increased gross profit is primarily due to continued efforts to reduce overhead expense as well as changing the method of delivery of intelligence and reports to be at scale rather than individualized customer delivery.

Quarterly Expense Trends

For 2021, operating expenses excluding restructuring charges were lowest in the first quarter and trended upward sequentially as employee-related payroll costs increased as headcount increased. For 2020, operating expenses excluding restructuring charges were

highest in the first quarter primarily due to our annual sales and marketing corporate event, held on-site prior to COVID-19 restrictions, decreased in the second quarter and trended up sequentially primarily due to employee-related payroll costs as headcount increased.

Liquidity and Capital Resources

	As of December 31,	
	2021	2020
	(In thousands)	
Cash and cash equivalents	$ 1,154,458	$ 673,234
Short-term investments	$ 1,039,339	$ 624,824

	Year Ended December 31,		
	2021	2020	2019
	(In thousands)		
Cash used in operating activities - continuing operations	$ (62,389)	$ (100,409)	$ (120,786)
Cash provided by operating activities - discontinued operations	124,345	195,304	188,323
Cash provided by operating activities	61,956	94,895	67,537
Cash provided by (used in) investing activities - continuing operations	705,752	(22,291)	(105,276)
Cash used in investing activities - discontinued operations	(16,311)	(49,867)	(63,760)
Cash provided by (used in) investing activities	689,441	(72,158)	(169,036)
Cash provided by (used in) financing activities	(273,393)	319,114	26,273
Net increase (decrease) in cash and cash equivalents	$ 478,004	$ 341,851	$ (75,226)

As of December 31, 2021, our cash and cash equivalents of $1.2 billion were held for working capital, capital expenditures, investment in technology, debt servicing and business acquisition purposes, of which approximately $73.3 million was held outside of the United States. We consider the undistributed earnings of our foreign subsidiaries as of December 31, 2021 to be indefinitely reinvested outside the United States on the basis of estimates that future domestic cash generation will be sufficient to meet future domestic cash needs and our plan for reinvestment of our foreign subsidiaries' undistributed earnings.

On August 4, 2021, we announced the acquisition of Intrigue, a developer of attack surface management technology, for consideration of approximately $12.3 million in cash.

In December 2020, we issued and sold 400,000 shares of a newly designated 4.5% Series A Convertible Preferred Stock, par value $0.0001 per share, at a price of $1,000 per share, for an aggregate purchase price of $400.0 million.

In November 2020, we acquired Respond Software, a cybersecurity investigation automation company. In connection with this acquisition, we paid cash consideration of $116.1 million and assumed $5.0 million in net tangible liabilities.

In January 2020, we acquired Cloudvisory, a provider of cloud visibility and control solutions. Total consideration for the acquisition was $13.2 million in cash. We also assumed $0.3 million in net tangible liabilities.

In May 2019, we acquired Verodin, a security instrumentation platform company. As consideration for the acquisition, we paid $143.7 million in cash, issued 8,404,609 shares of our common stock with an estimated fair value of $119.7 million and recognized $1.5 million of the fair value of assumed stock options attributable to pre-combination services.

On October 8, 2021, we completed the previously announced sale of the FireEye Products business to Magenta Buyer LLC ("Trellix"), which is backed by a consortium led by Symphony Technology Group. Upon the sale on October 8, 2021, we received approximately $1.2 billion, net of cash disposed. For the year ended December 31, 2021, we incurred cash payments of $29.8 million related to the sale of our FireEye Products business, which have been presented as operating cash flows from discontinued operations.

Our principal sources of liquidity are existing cash and cash equivalents and short-term investments and any cash inflow from operations, which we believe will be sufficient to meet our anticipated cash needs for at least the next 12 months. While we have experienced delays in collections which we attribute to the COVID-19 pandemic, we believe we will be able to manage liquidity to meet our anticipated cash needs for at least the next 12 months. Our future capital requirements will depend on many factors, including our growth rate, the timing and extent of spending to support development efforts, the efficiency of our marketing and sales activities, the introduction of new and enhanced product and service offerings, the cost of any future acquisitions of technology or businesses, and the continuing market acceptance of our products. In the event that additional financing is required from outside

sources, we may not be able to raise such financing on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, operating results and financial condition would be adversely affected.

Operating Activities

During the year ended December 31, 2021, our operating activities from continuing operations used cash of $62.4 million. We incurred a loss from continuing operations of $412.1 million, which included net non-cash expenses of $314.1 million, primarily consisting of stock-based compensation charges, depreciation and amortization expense, non-cash interest expense related to convertible notes and loss on disposal of property and equipment and write-down of operating right-of-use assets related to relocating our corporate headquarters. Our net change in operating assets and liabilities provided cash of $35.6 million, primarily related to cash sourced from a decrease in deferred revenue of $126.1 million and a decrease in accounts payable and accrued liabilities of $1.0 million, partially offset by an increase in accounts receivable of $67.6 million due to a significant increase in fourth quarter billings as compared to 2020, an increase in prepaid expenses and other assets of $14.4 million and a decrease in other long-term liabilities of $9.4 million. Cash provided by operating activities from discontinued operations was $124.3 million.

During the year ended December 31, 2020, our operating activities from continuing operations used cash of $100.4 million. We incurred a loss from continuing operations of $349.3 million, which included net non-cash expenses of $239.3 million, primarily consisting of stock-based compensation charges, depreciation and amortization expense and non-cash interest expense related to our convertible notes. Our net change in operating assets and liabilities provided cash of $9.6 million, primarily due to an increase in accrued compensation of $28.6 million, a decrease in deferred revenue of $8.3 million, partially offset by a decrease in other long-term liabilities of $14.9 million and a decrease in accounts payables and accrued liabilities of $13.4 million. Cash provided by operating activities from discontinued operations was $195.3 million.

Investing Activities

Cash provided by investing activities from continuing operations during the year ended December 31, 2021 was $705.8 million, which was primarily due to $1.2 billion of net proceeds received from the divestiture of the FireEye Products business, partially offset by $430.1 million net spending on short-term marketable securities as purchases exceeded maturities and sales proceeds, capital expenditures to purchase property and equipment of $25.5 million and by $11.7 million used to acquire Intrigue. Cash used in investing activities from discontinued operations was $16 million.

Cash used by investing activities from continuing operations during the year ended December 31, 2020 was $22.3 million. This was primarily due to $82.2 million used to acquire Cloudvisory and Respond, net of cash acquired, and $17.9 million used for capital expenditures to purchase property and equipment, partially offset by $79.1 million of net receipts from short-term investments as maturities and sales exceeded purchases. Cash used in investing activities from discontinued operations was $49.9 million.

Financing Activities

During the year ended December 31, 2021, financing activities used $273.4 million in cash, primarily for share repurchases of $288.5 million, and payment related to shares withheld for taxes of $11.2 million, partially offset by $26.4 million received from employee purchases of shares under our 2013 Employee Stock Purchase Plan ("ESPP") and exercises of employee stock options.

During the year ended December 31, 2020, financing activities provided $319.1 million in cash, primarily from proceeds of $395.3 million received from the issuance of Series A Convertible Preferred Stock, net of issuance costs, and proceeds of $29.5 million from employee purchases of shares under our ESPP and exercises of employee stock options.

Net cash provided by (used in) discontinued operations:

Cash provided by discontinued operations for the year ended December 31, 2021 was $108.0 million as compared to cash provided by discontinued operations of $145.4 million for the year ended December 31, 2020. The $37.4 million decrease was primarily due to a $71.0 million decrease in cash provided by operating activities offset by a $33.6 million increase in cash used in investing activities. The decrease in cash flows from operating activities was primarily due to a $28.5 million decrease in net income excluding the gain from the FireEye Products business divestiture and a $15.1 million decrease in cash flows related to operating assets and liabilities. The decrease in cash used in investing activities was primarily due to not having any business acquisitions related to discontinued operations in 2021 compared to the $41.5 million used for business acquisitions in 2020.

Contractual Obligations and Commitments

The following summarizes our contractual obligations and commitments as of December 31, 2021:

	Payments Due by Period				
	Total	Less Than 1 Year	1 - 3 Years	3 - 5 Years	More Than 5 Years
	(In thousands)				
Convertible Notes	$ 1,121,318	$ 12,959	$ 482,181	$ 626,178	$ —
Operating leases	79,631	13,839	24,315	21,223	20,254
Purchase obligations	20,572	5,511	13,450	1,611	—
Total	$ 1,221,521	$ 32,309	$ 519,946	$ 649,012	$ 20,254

Total future payments related to our Convertible Notes of $1.1 billion shown in the table above is composed of $23.4 million principal amount of Series A Notes, $460 million principal amount of Series B Notes, $600 million principal amount of 2024 Notes and future interest payments of $37.9 million. Although the 2035 Notes have a stated maturity of June 1, 2035, they have been reflected in the table above assuming repurchase on June 1, 2025 in the case of the Series A Notes and June 1, 2022 in the case of the Series B Notes (the earliest future date holders have the right to require us to repurchase all or any portion of their Convertible Senior Notes) at 100% of the principal amount plus accrued and unpaid interest as of these dates.

Due to the uncertainty with respect to the timing of future cash flows associated with our unrecognized tax benefits as of December 31, 2021, we are unable to make reasonably reliable estimates of the period of cash settlement with the respective taxing authorities. Therefore, approximately $5.4 million of unrecognized tax benefits classified as “Other long-term liabilities” in the accompanying consolidated balance sheets as of December 31, 2021, have been excluded from the contractual obligations table above.

Off-Balance Sheet Arrangements

As of December 31, 2021, we did not have any relationships with unconsolidated entities or financial partnerships, such as structured finance or special purpose entities, which were established for the purpose of facilitating off-balance sheet arrangements or other purposes.

Segment Information

We have one primary business activity and operate in one reportable segment.

Concentration

For the years ended December 31, 2021 and 2020, one reseller represented 10% of the Company's total revenue, but did not represent 10% or greater of the Company's total revenue for the year ended December 31, 2019.

Our agreements with the distributors and reseller were made in the ordinary course of our business and may be terminated with or without cause by either party with advance notice. Although we believe we would experience some short-term disruption in the distribution of our products and subscriptions and services if these agreements were terminated, we believe such termination would not have a long-term material adverse effect on our financial results and that alternative resellers and other channel partners exist who would be able to deliver our products to our end-customers.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. Actual results may differ from these estimates. To the extent that there are material differences between these estimates and our actual results, our future financial statements will be affected.

The critical accounting policies requiring estimates, assumptions, and judgments that we believe have the most significant impact on our consolidated financial statements are described below.

Revenue from Contracts with Customers

Revenue is recognized when all of the following criteria are met:

- ***Identification of the contract, or contracts, with a customer*** - A contract with a customer exists when (i) we enter into an enforceable contract with a customer that defines each party’s rights regarding the goods or services to be transferred and identifies the payment terms related to these goods or services, (ii) the contract has commercial substance and the parties are committed to perform, and (iii) we determine that collection of substantially all consideration to which it will be entitled in

exchange for goods or services that will be transferred is probable based on the customer's intent and ability to pay the promised consideration.

- ***Identification of the performance obligations in the contract*** - Performance obligations promised in a contract are identified based on the goods or services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the goods or service either on its own or together with other resources that are readily available from third parties or from us, and are distinct in the context of the contract, whereby the transfer of the goods or services is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised goods or services, we apply judgment to determine whether promised goods or services are capable of being distinct and distinct in the context of the contract. If these criteria are not met the promised goods or services are accounted for as a combined performance obligation.

- ***Determination of the transaction price*** - The transaction price is determined based on the consideration to which we will be entitled in exchange for transferring goods or services to the customer adjusted for estimated variable consideration, if any. We typically estimate the transaction price impact of discounts offered to the customers for early payments on receivables or rebates based on channel partner sales achievements. Constraints are applied when estimating variable considerations based on historical experience where applicable.

- ***Allocation of the transaction price to the performance obligations in the contract*** - If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price ("SSP") basis. Determination of SSP requires judgment. We determine standalone selling price taking into account available information such as historical selling prices of the performance obligation, geographic location, overall strategic pricing objective, market conditions and internally approved pricing guidelines related to the performance obligations.

- ***Recognition of revenue when, or as, we satisfy performance obligations*** - We satisfy performance obligations either over time or at a point in time as discussed in further detail below. Revenue is recognized at or over the time the related performance obligation is satisfied by transferring a promised good or service to a customer.

Nature of Solutions and Services

We generate revenue from the sales of cloud based subscriptions, managed services and professional services, primarily through our indirect relationships through our partners or direct relationships through our direct sales-force. We account for our performance obligations in accordance with Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers, regarding Accounting Standards Codification Topic 606 ("ASC 606") and all related interpretations.

Revenue from subscriptions to our cloud-based solutions, which allow customers to use our hosted security software over a contracted period without taking possession of the software and managed services where we provide managed detection and response services for customers, are recognized over the contractual term. A small portion of our revenue is derived from our validation software deployed on premise that is not dependent on regular threat intelligence updates. Revenue from these solutions is therefore recognized when ownership is transferred to our customers, typically upon delivery of the license.

Professional services, which include incident response, security assessments, and other strategic security consulting services are offered on a time-and-materials basis or through fixed fee arrangements, and we recognize the associated revenue as the services are delivered.

Discontinued Operations

Revenue from discontinued operations was generated primarily from sales of network, email, endpoint security, Helix SIEM and Cloudvisory solutions deployed on a customer's premises, either as an integrated security appliance or a distributed hybrid on-premise/private cloud configurations. As a single performance obligation, revenue from sales of appliance hardware and related subscriptions was recognized ratably over the contractual term, typically one to three years. Such contracts typically contained a material right of renewal option that allows the customer to renew their DTI cloud and support subscriptions for an additional term at a discount to the original purchase price of the single performance obligation. For contracts that contained a material right of renewal option, the value of the performance obligation allocated to the renewal was recognized ratably over the period between the end of the initial contractual term and end of the estimated useful life of the related appliance and license. A small portion of our revenue in the product and related subscription and support revenue related to discontinued operations was derived from the sale of our network forensics appliances and our central management system appliances. These appliances were not dependent on regular security intelligence updates, and revenue from these appliances was therefore recognized when ownership was transferred to our customer, typically at shipment.

Stock-Based Compensation

Compensation expense related to stock-based transactions, including employee and non-employee director stock options, is measured and recognized in the financial statements based on the fair value of the awards granted. The fair value of each option award is estimated on the grant date using the Black-Scholes option-pricing model and a single option award approach. The fair value of stock options granted to non-employees is remeasured as the stock options vest, and the resulting change in value, if any, is recognized

in the statement of operations during the period the related services are rendered. Stock-based compensation expense is recognized over the requisite service periods of the awards, which is generally four years.

Our use of the Black-Scholes option-pricing model requires the input of highly subjective assumptions, including the fair value of the underlying common stock prior to our IPO in September 2013, the expected term of the option, the expected volatility of the price of our common stock, risk-free interest rates, and the expected dividend yield of our common stock. The assumptions used in our option-pricing model represent management's best estimates. These estimates involve inherent uncertainties and the application of management's judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future. These assumptions and estimates are as follows:

- Fair Value of Common Stock. Because our common stock was not publicly traded until September 20, 2013, we were required to estimate the fair value of common stock for grants made prior to that date, as discussed in "Common Stock Valuations" below.
- Risk-Free Interest Rate. We base the risk-free interest rate used in the Black-Scholes option-pricing model on the implied yield available on U.S. Treasury zero-coupon issues with a remaining term equivalent to that of the options for each option group.
- Expected Term. The expected term represents the period that our stock-based awards are expected to be outstanding. We base the expected term assumption on our historical exercise behavior combined with estimates of the post-vesting holding period.
- Volatility. We determine the price volatility factor based on the historical volatilities of our publicly traded peer group as we do not have a significant trading history for our common stock. Industry peers consist of several public companies in the technology industry that are similar to us in size, stage of life cycle, and financial leverage. We used the same set of peer group companies in all the relevant valuation estimates. We did not rely on implied volatilities of traded options in our industry peers' common stock because the volume of activity was relatively low. We intend to continue to consistently apply this process using the same or similar public companies until a sufficient amount of historical information regarding the volatility of our own common stock share price becomes available, or unless circumstances change such that the identified companies are no longer similar to us, in which case, more suitable companies whose share prices are publicly available would be utilized in the calculation.
- Dividend Yield. The expected dividend assumption is based on our current expectations about our anticipated dividend policy. Consequently, we used an expected dividend yield of zero.

In addition to the assumptions used in the Black-Scholes option-pricing model, we also estimated a forfeiture rate to calculate the stock-based compensation expense for our awards prior to January 1, 2016. Beginning January 1, 2016, we began recognizing forfeitures as they occur with the adoption of ASU 2016-09.

We estimate the fair value of the rights to acquire stock under our ESPP using the Black-Scholes option pricing formula. Our ESPP typically provides for consecutive twelve-month offering periods and we use our peer group volatility data in the valuation of ESPP shares. We recognize such compensation expense on a straight-line basis over the requisite service period.

We account for the fair value of restricted stock units ("RSUs") using the closing market price of our common stock on the date of grant. For new-hire grants, RSUs generally vest ratably on an annual basis over four years. For annual refresh grants, RSUs generally vest ratably on an annual, or combination of annual and quarterly, basis over two to four years.

We account for the fair value of performance stock units ("PSUs") using the closing market price of our common stock on the date of grant. We begin recognizing compensation expense when we conclude that it is probable that the performance conditions will be achieved. We reassess the probability of vesting at each reporting period and adjust our compensation cost based on this probability assessment.

We will continue to use judgment in evaluating the assumptions related to our stock-based compensation on a prospective basis. As we continue to accumulate additional data related to our common stock, we may have refinements to our estimates which could materially impact our future stock-based compensation expense.

Income Taxes

We account for income taxes 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 recognized in our financial statements or tax returns. In addition, deferred tax assets are recorded for the future benefit of utilizing net operating losses and research and development credit carryforwards. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount expected to be realized. We recognize taxes on Global Intangible Low-Taxed Income ("GILTI") as a current period expense when incurred.

We apply the authoritative accounting guidance prescribing a threshold and measurement attribute for the financial recognition and measurement of a tax position taken or expected to be taken in a tax return. We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available

evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step requires us to estimate and measure the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement.

Significant judgment is required in evaluating our uncertain tax positions and determining our provision for income taxes. Although we believe our reserves are reasonable, no assurance can be given that the final tax outcome of these matters will not be different from that which is reflected in our historical income tax provisions and accruals. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences may impact the provision for income taxes in the period in which such determination is made.

Significant judgment is also required in determining any valuation allowance recorded against deferred tax assets. In assessing the need for a valuation allowance, we consider all available evidence, including scheduled reversal of deferred tax liabilities, past operating results, the feasibility of tax planning strategies and estimates of future taxable income. Estimates of future taxable income are based on assumptions that are consistent with our plans. Assumptions represent management's best estimates and involve inherent uncertainties and the application of management's judgment. Should actual amounts differ from our estimates, the amount of our tax expense and liabilities could be materially impacted.

We do not provide for a U.S. income tax liability and foreign withholding taxes on undistributed foreign earnings of our foreign subsidiaries as a result of cumulative and current overall foreign loss. The earnings of non-U.S. subsidiaries are currently expected to be indefinitely reinvested in non-U.S. operations.

Loss Contingencies

We are subject to the possibility of various loss contingencies arising in the ordinary course of business. We consider the likelihood of loss or impairment of an asset, or the incurrence of a liability, as well as our ability to reasonably estimate the amount of loss, in determining loss contingencies. An estimated loss contingency is accrued when it is probable that an asset has been impaired, or a liability has been incurred and the amount of loss can be reasonably estimated. If we determine that a loss is possible, and the range of the loss can be reasonably determined, then we disclose the range of the possible loss. We regularly evaluate current information available to us to determine whether an accrual is required, an accrual should be adjusted, or a range of possible loss should be disclosed.

Goodwill and Purchased Intangible Assets

Goodwill represents the excess of the aggregate purchase price paid over the fair value of the net tangible and identifiable intangible assets acquired. In the valuation of our goodwill, we must make assumptions regarding estimated future cash flows to be derived from our business. If these estimates or their related assumptions change in the future, we may be required to record impairment for these assets. Goodwill is not amortized and is tested for impairment at least annually or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The Company has determined that it operates as one reporting unit and has selected December 1 as the date to perform its annual impairment test.

We perform the impairment testing by first assessing qualitative factors to determine whether existence of events or circumstances leads to a determination that it is more likely than not that the fair value of its reporting unit is less than its carrying amount. In assessing the qualitative factors, we consider the impact of certain key factors including macroeconomic conditions, industry and market considerations, management turnover, changes in regulation, litigation matters, changes in enterprise value, and overall financial performance. If, after assessing the totality of events or circumstances, the Company determines it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then it performs a quantitative assessment to determine whether there is any impairment. To calculate any potential impairment, the Company compares the fair value of a reporting unit with its carrying amount, including goodwill. There was no impairment of goodwill recorded for the years ended December 31, 2021, 2020 or 2019.

Purchased intangible assets with finite lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets. Purchased intangible assets with indefinite lives are assessed for potential impairment annually, or when events or circumstances indicate that their carrying amounts might be impaired.

Business Combinations

We account for all of our acquisitions using the acquisition method of accounting for business combinations. The fair value of purchase consideration is allocated to the tangible assets acquired, liabilities assumed, and intangible assets acquired, based on their estimated fair values. The excess of the fair value of purchase consideration over the values of these identifiable assets and liabilities is recorded as goodwill.

When determining the fair value of assets acquired and liabilities assumed, management makes significant estimates and assumptions, especially with respect to identifiable intangible assets. Significant assumptions in valuing certain identifiable intangible assets include, but are not limited to, expected long-term market growth, customer retention, future expected operating expenses, costs

of capital, and appropriate discount rates. Management's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates.

Discontinued Operations

We consider assets to be held for sale when management commits to a formal plan to actively market the assets for sale at a price reasonable in relation to fair value, it is unlikely that significant changes will be made to the plan, the assets are available for immediate sale in their present condition, an active program to locate a buyer and other actions required to complete the sale have been initiated and the sale of the assets is expected to be completed within one year. Upon designation as held for sale, we record the carrying value of the assets at the lower of the then current carrying value or estimated fair value, less costs to sell. Fair value is determined based on external data available or management's estimates, depending upon the nature of the assets and liabilities. Goodwill is allocated to the FireEye Products business and designated as held for sale based on the relative fair values of the FireEye Products business and the remaining business. The fair value is determined based on the Company's market capitalization and management's estimate of the control premium a buyer would pay to obtain control of the business. Following recording as such, assets held for sale are not depreciated or amortized thereafter.

If the disposal of the component of an entity (or group of components) represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results, it meets the criteria for discontinued operations. The results of discontinued operations, as well as any gain or loss on the disposal transaction, are presented separately, net of tax, from the results of continuing operations for all periods presented. The revenue and expenses included in the results of discontinued operations are the revenue and direct operating expenses incurred by the discontinued component that may be reasonably segregated from the revenue and costs of the ongoing operations of the Company. The assets and liabilities for the FireEye Products business have been accounted for as assets and liabilities held for sale in our consolidated balance sheets. The operating results have been included in discontinued operations in our consolidated financial statements. The consolidated statement of cash flows presents combined cash flows from continuing operations with cash flows from discontinued operations within each cash flow statement category. The prior periods have been adjusted to reflect the assets and liabilities held for sale and discontinued operations.

Recent Accounting Pronouncements

See Note 1, "Description of Business and Summary of Significant Accounting Policies," contained in the "Notes to Consolidated Financial Statements" in Part II, Item 8 of this Annual Report on Form 10-K for a full description of the recent accounting pronouncements and our expectation of their impact, if any, on our results of operations and financial conditions.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Foreign Currency Exchange Risk

Our sales contracts are primarily denominated in U.S. dollars. A portion of our operating expenses are incurred outside the United States and are denominated in foreign currencies and are subject to fluctuations due to changes in foreign currency exchange rates, particularly changes in the Indian Rupee, British Pound Sterling, Japanese Yen and Euro. Additionally, fluctuations in foreign currency exchange rates may cause us to recognize transaction gains and losses in our statement of operations. On June 23, 2016, the United Kingdom ("U.K.") held a referendum in which British voters approved an exit from the European Union ("EU"), commonly referred to as "Brexit." This resulted in an adverse impact to currency exchange rates, notably the British Pound Sterling which experienced a sharp decline in value compared to the U.S. dollar and other currencies. Continued volatility in currency exchange rates is expected as the U.K. negotiates its exit from the EU, which could result in greater transaction gains or losses in our statement of operations.

The effect of a hypothetical 10% adverse change in foreign exchange rates on monetary assets and liabilities at December 31, 2021 would not be material to our financial condition or results of operations. To date, foreign currency transaction gains and losses and exchange rate fluctuations have not been material to our financial statements, and we have not engaged in any foreign currency hedging transactions.

As our international operations continue to grow, our risks associated with fluctuations in currency rates will become greater, and we will continue to reassess our approach to managing this risk. In addition, currency fluctuations or a weakening U.S. dollar can increase the costs of our international expansion, and a strengthening U.S. dollar could slow international demand as products and services priced in U.S. dollars become more expensive.

Interest Rate Risk

We had cash and cash equivalents and investments of $2.2 billion and $1.3 billion as of December 31, 2021 and 2020, respectively, consisting of bank deposits, money market funds, certificates of deposit, commercial paper and bonds issued by corporate institutions, U.S. Treasury notes and U.S. government agencies. Such interest-earning instruments carry a degree of interest rate risk, but the risk is limited due to our investment policies which limit the duration of our short term investments. To date, fluctuations in interest income have not been significant.

We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure. We have not been exposed to, nor do we anticipate being exposed to, material risks due to changes in interest rates.

Our cash flow exposure due to changes in interest rates related to our debt is limited as our Series A Notes, Series B Notes and 2024 Notes have fixed interest rates of 1.000%, 1.625% and 0.875%, respectively. The fair value of the Convertible Notes may increase or decrease for various reasons, including fluctuations in the market price of our common stock, fluctuations in market interest rates and fluctuations in general economic conditions. Based upon the quoted market price as of December 31, 2021, the fair value of our Convertible Notes was approximately $1.0 billion.

A hypothetical 10% change in interest rates during any of the periods presented would not have had a material impact on our financial statements.

Item 8. Financial Statements and Supplementary Data

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Certain supplementary financial information required by this Item 8 is included in Part II, Item 7 of this Annual Report on Form 10-K under the caption “Quarterly Results of Operations.”

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Mandiant, Inc. (formerly FireEye, Inc.)

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Mandiant, Inc. (formerly FireEye, Inc.) and subsidiaries (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), convertible preferred stock and stockholders' equity, and cash flows, for each of the three years in the period ended December 31, 2021, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

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

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.

Emphasis of a Matter

As discussed in Note 2 to the financial statements, the sale of the FireEye Products business to a consortium led by Symphony Technology Group closed on October 8, 2021. As a result, the FireEye Products business was classified as discontinued operations and the related assets and liabilities were classified as held for sale in the financial statements.

Critical Audit Matters

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

Revenue Recognition and Contract Balances - Appliance and License Useful Life — Refer to Notes 1, 8, and 10 to the financial statements

Critical Audit Matter Description

The Company recognizes revenue for contracts that contain a renewal option, which is a material right, over the contractual term with the allocated value of the renewal option recognized over the period between the end of the initial contractual term and the end of the estimated useful life of the related appliance and license. The costs of revenue and commissions for such contracts are also recognized based on this estimated useful life.

We identified appliance and license useful life as a critical audit matter because the determination of this estimated useful life of the appliance and license requires significant judgment based on the Company’s evaluation of historical renewals, technology refresh cycle, and management’s expectation of future trends. This required a high degree of auditor judgment and an increased extent of effort to perform qualitative evaluations of these assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the estimated appliance and license useful life included the following, among others:

- We tested the effectiveness of controls over the Company's determination of the estimated appliance and license useful life.
- We evaluated the methods and assumptions used by management to determine the estimated useful life by:
  - Testing the underlying data that served as the basis for the analysis including information regarding actual historical renewals.
  - Recalculating the quantitative historical renewal information in the Company's analysis
  - Assessing qualitative factors including product refresh cycle, technology life and evaluating whether historical renewal of the license and hardware is indicative of the estimated useful life based on internal or external information available, including interviews with Company personnel and reviews of Company product road maps and industry publications.
  - Evaluating the reasonableness of management's overall conclusion

Discontinued Operations – Control Premium Used for Goodwill Allocation — Refer to Notes 1 and 2 to the financial statements

Critical Audit Matter Description

On October 8, 2021, the Company sold the assets and liabilities of the FireEye Products business in exchange for total cash consideration of $1.2 billion and recorded a gain on divestiture of $1.2 billion. The assets and liabilities sold were recorded at the lower of the then current carrying value or estimated fair value, less costs to sell. Fair value is determined based on external data available or management's estimates, depending upon the nature of the assets and liabilities. Goodwill was allocated to the FireEye Products business based on the relative fair values of the FireEye Products business and the remaining business. The fair value of the business was determined based on the Company's market capitalization and management's estimate of the control premium a buyer would pay to obtain control of the business.

We identified the control premium used in the allocation of goodwill as a critical audit matter because it required management judgment. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's estimates and assumptions related to the control premium.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the control premium used for goodwill allocation included the following, among others:

- We tested the effectiveness of controls over the estimation of the control premium used for goodwill allocation.
- We assessed the reasonableness of the control premium used for goodwill allocation by inquiring with management to understand how the premium was determined, comparing the premium to comparable market transactions, and evaluating the reasonableness of internal and external factors management considered in estimating the control premium.
- We evaluated management's methodology for estimating the control premium.
- We involved our valuation specialists to audit the assumptions used in the determination of the control premium.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
March 1, 2022

We have served as the Company's auditor since 2010.

MANDIANT, INC. (FORMERLY FIREEYE, INC.)
Consolidated Balance Sheets
(In thousands, except per share data)

	As of December 31,	
	2021	**2020**
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,154,458	$ 673,234
Short-term investments	1,039,339	624,824
Accounts receivable, net of allowance for doubtful accounts of $806 and $1,225 at December 31, 2021 and 2020, respectively	146,460	70,563
Prepaid expenses and other current assets	73,079	39,670
Current assets held for sale	—	153,954
Total current assets	2,413,336	1,562,245
Property and equipment, net	46,329	64,336
Operating lease right-of-use assets, net	25,768	36,728
Goodwill	1,060,023	1,050,962
Intangible assets, net	79,511	120,555
Deposits and other long-term assets	26,220	18,084
Long-term assets held for sale	—	392,974
TOTAL ASSETS	$ 3,651,187	$ 3,245,884
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 32,585	$ 4,027
Operating lease liabilities, current	13,306	14,556
Accrued and other current liabilities	105,886	19,730
Accrued compensation	71,660	71,784
Convertible senior notes, current, net	451,030	—
Deferred revenue, current portion	307,611	226,356
Current liabilities held for sale	—	417,291
Total current liabilities	982,078	753,744
Convertible senior notes, net	556,240	960,896
Deferred revenue, non-current portion	102,717	57,897
Operating lease liabilities, non-current	52,132	41,802
Other long-term liabilities	7,376	12,339
Long-term liabilities held for sale	—	285,251
Total liabilities	1,700,543	2,111,929
Commitments and contingencies (NOTE 12)		
Series A Convertible Preferred Stock, par value of $0.0001 per share; 400 shares authorized, issued and outstanding as of December 31, 2021 and 2020	419,404	401,050
Stockholders' equity:		
Common stock, par value of $0.0001 per share; 1,000,000 shares authorized, 231,166 and 235,690 shares issued and outstanding as of December 31, 2021 and 2020, respectively	23	24
Additional paid-in capital	3,511,444	3,623,243
Treasury stock, at cost; 1,778 and 1,778 shares as of December 31, 2021 and 2020, respectively	(80,000)	(80,000)
Accumulated other comprehensive income (loss)	(2,172)	3,834
Accumulated deficit	(1,898,055)	(2,814,196)
Total stockholders' equity	1,531,240	732,905
TOTAL LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY	$ 3,651,187	$ 3,245,884

See accompanying notes to consolidated financial statements.

MANDIANT, INC. (FORMERLY FIREEYE, INC.)
Consolidated Statements of Operations
(In thousands, except per share data)

	Year Ended December 31,		
	2021	**2020**	**2019**
Revenue:			
Platform, cloud subscription and managed services	$ 235,077	$ 198,695	$ 163,583
Professional services	248,378	201,014	167,787
Total revenue	483,455	399,709	331,370
Cost of revenue:			
Platform, cloud subscription and managed services	111,915	107,872	101,793
Professional services	142,477	117,645	98,512
Total cost of revenue	254,392	225,517	200,305
Total gross profit	229,063	174,192	131,065
Operating expenses:			
Research and development	166,893	122,045	103,063
Sales and marketing	262,643	224,357	237,077
General and administrative	121,134	106,347	119,435
Restructuring charges	34,576	21,084	10,264
Total operating expenses	585,246	473,833	469,839
Operating loss	(356,183)	(299,641)	(338,774)
Interest income	5,419	11,325	22,017
Interest expense	(59,333)	(60,066)	(61,927)
Other income (expense), net	1,378	(496)	(1,775)
Loss before income taxes from continuing operations	(408,719)	(348,878)	(380,459)
Provision for income taxes	3,381	460	(17,539)
Loss from continuing operations	$ (412,100)	$ (349,338)	$ (362,920)
Net income from discontinued operations, net of income taxes	1,328,241	142,037	105,511
Net income (loss)	916,141	(207,301)	(257,409)
Dividend on series A convertible preferred stock	(18,354)	(1,050)	—
Accretion of series A convertible preferred stock	(82)	(4,653)	—
Net income (loss) attributable to common stockholders	$ 897,705	$ (213,004)	$ (257,409)
Net income (loss) per share attributable to common stockholders, basic and diluted:			
Continuing operations	$ (1.82)	$ (1.59)	$ (1.75)
Discontinued operations	5.62	0.64	0.51
Net income (loss) per share attributable to common stockholders, basic and diluted	$ 3.80	$ (0.95)	$ (1.24)
Weighted average shares used in computing net income (loss) per share, basic and diluted	236,367	223,308	207,234

See accompanying notes to consolidated financial statements.

MANDIANT, INC. (FORMERLY FIREEYE, INC.)
Consolidated Statements of Comprehensive Income (Loss)
(In thousands)

	Year Ended December 31,		
	2021	**2020**	**2019**
Net income (loss)	$ 916,141	$ (207,301)	$ (257,409)
Change in net unrealized gains (loss) on available-for-sale investments	(6,006)	2,654	3,479
Comprehensive income (loss)	$ 910,135	$ (204,647)	$ (253,930)

See accompanying notes to consolidated financial statements.

MANDIANT, INC. (FORMERLY FIREEYE, INC.).

Consolidated Statement of Convertible Preferred Stock and Stockholders' Equity

(In thousands)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balance at December 31, 2018	**—**	**—**	**199,612**	**20**	**3,152,159**	**(150,000)**	**(2,299)**	**(2,349,486)**	**650,394**
Issuance of common stock for equity awards	—	—	9,624	1	4,186	—	—	—	4,187
Issuance of common stock related to employee stock purchase plan	—	—	1,781	—	22,086	—	—	—	22,086
Issuance of common stock and assumption of options related to Verodin, Inc. acquisition	—	—	8,405	1	121,157	—	—	—	121,158
Unrealized gain on investments	—	—	—	—	—	—	3,479	—	3,479
Stock-based compensation	—	—	—	—	157,771	—	—	—	157,771
Net loss	—	—	—	—	—	—	—	(257,409)	(257,409)
Balance at December 31, 2019	**—**	**—**	**219,422**	**22**	**3,457,359**	**(150,000)**	**1,180**	**(2,606,895)**	**701,666**
Issuance of common stock for equity awards	—	—	11,492	2	7,333	—	—	—	7,335
Shares withheld for taxes	—	—	(600)	—	(9,364)	—	—	—	(9,364)
Issuance of common stock related to employee stock purchase plan	—	—	1,999	—	22,188	—	—	—	22,188
Shares retired	—	—	(1,555)	—	(70,000)	70,000	—	—	—
Issuance of common stock and assumption of options related to Respond, Inc. acquisition	—	—	4,932	—	60,336	—	—	—	60,336
Partially vested options related to Respond, Inc. acquisition	—	—	—	—	1,162	—	—	—	1,162
Series A convertible preferred stock, net of issuance costs of $4,653	400	395,347	—	—	—	—	—	—	—
Accretion of Series A convertible preferred stock	—	4,653	—	—	(4,653)	—	—		(4,653)
Dividends on Series A convertible preferred stock	—	1,050	—	—	(1,050)	—	—	—	(1,050)
Unrealized gain on investments	—	—	—	—	—	—	2,654	—	2,654
Stock-based compensation	—	—	—	—	159,932	—	—	—	159,932
Net loss	—	—	—	—	—	—	—	(207,301)	(207,301)
Balance at December 31, 2020	**400**	**401,050**	**235,690**	**24**	**3,623,243**	**(80,000)**	**3,834**	**(2,814,196)**	**732,905**
Issuance of common stock for equity awards	—	—	11,468	1	6,604	—	—	—	6,605
Shares withheld for taxes	—	—	(536)	—	(11,232)	—	—	—	(11,232)
Shares repurchased	—	—	(16,829)	(2)	(299,999)	—	—	—	(300,001)
Issuance of common stock related to employee stock purchase plan	—	—	1,631	—	19,834	—	—	—	19,834
Issuance of common stock related to Respond, Inc. acquisition	—	—	(258)	—	—	—	—	—	—
Accretion of Series A convertible preferred stock	—	—	—	—	(82)	—	—	—	(82)
Dividends on Series A convertible preferred stock	—	18,354	—	—	(18,354)	—	—	—	(18,354)
Unrealized loss on investments	—	—	—	—		—	(6,006)	—	(6,006)
Stock-based compensation	—	—	—	—	191,430	—	—	—	191,430
Net income (loss)	—	—	—	—	—	—	—	916,141	916,141
Balance at December 31, 2021	**400**	**$419,404**	**231,166**	**$ 23**	**$3,511,444**	**$(80,000)**	**$ (2,172)**	**$ (1,898,055)**	**$ 1,531,240**

MANDIANT, INC. (FORMERLY FIREEYE, INC.).

Consolidated Statement of Convertible Preferred Stock and Stockholders' Equity

(In thousands)

See accompanying notes to the consolidated financial statements.

MANDIANT, INC. (FORMERLY FIREEYE, INC.)
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2021	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss)	$ 916,141	$ (207,301)	$ (257,409)
Less: income (loss) from discontinued operations	1,328,241	142,037	105,511
Loss from continuing operations	(412,100)	(349,338)	(362,920)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	94,723	78,337	80,667
Stock-based compensation	151,405	113,698	105,215
Non-cash interest expense related to convertible senior notes	46,374	46,728	47,983
Deferred income taxes	795	(754)	(340)
Loss on disposal of property and equipment	19,871	885	219
Other	959	418	(71)
Changes in operating assets and liabilities, net of assets acquired and liabilities assumed in business acquisitions:			
Accounts receivable	(67,584)	2,613	(25,437)
Prepaid expenses and other assets	(14,434)	(1,589)	9,005
Accounts payable	13,095	(10,036)	3,936
Accrued liabilities	(12,080)	(3,363)	(5,564)
Accrued compensation	(124)	28,559	(570)
Deferred revenue	126,075	8,349	38,508
Other long-term liabilities	(9,364)	(14,916)	(11,417)
Net cash used in operating activities - continuing operations	(62,389)	(100,409)	(120,786)
Net cash provided by operating activities - discontinued operations	124,345	195,304	188,323
Net cash provided by operating activities	61,956	94,895	67,537
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property and equipment and demonstration units	(25,536)	(17,928)	(29,349)
Purchases of short-term investments	(938,938)	(393,442)	(617,194)
Proceeds from maturities of short-term investments	506,861	443,396	620,580
Proceeds from sales of short-term investments	2,008	29,161	—
Business acquisitions, net of cash acquired	(11,678)	(82,247)	(79,987)
Proceeds from sale of FireEye Products business, net of cash disposed	1,171,664	—	—
Purchase of investment in private company	—	(1,000)	—
Lease deposits	1,371	(231)	674
Net cash provided by (used in) investing activities - continuing operations	705,752	(22,291)	(105,276)
Net cash used in investing activities - discontinued operations	(16,311)	(49,867)	(63,760)
Net cash provided by (used in) investing activities	689,441	(72,158)	(169,036)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Repurchase of convertible senior notes	—	(96,392)	—
Share repurchases	(288,518)	—	—
Series A convertible preferred stock issuance costs	(82)	(4,653)	—
Series A convertible preferred stock	—	400,000	—
Payment related to shares withheld for taxes	(11,232)	(9,363)	—
Proceeds from employee stock purchase plan	19,834	22,188	22,086
Proceeds from exercise of equity awards	6,605	7,334	4,187
Net cash provided by (used in) financing activities	(273,393)	319,114	26,273
Net change in cash and cash equivalents	478,004	341,851	(75,226)
Cash and cash equivalents, beginning of period	673,234	331,383	406,609
Cash and cash equivalents held for sale, beginning of period	3,220	3,220	3,220
Cash and cash equivalents held for sale, end of period	—	(3,220)	(3,220)
Cash and cash equivalents, end of period	$ 1,154,458	$ 673,234	$ 331,383

MANDIANT, INC. (FORMERLY FIREEYE, INC.)
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2021	**2020**	**2019**
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Cash paid for income taxes	$ 4,961	$ 4,693	$ 4,558
Cash paid for interest	$ 12,959	$ 13,441	$ 13,934
SUPPLEMENTAL DISCLOSURES OF NON-CASH INVESTING AND FINANCING ACTIVITIES:			
Common stock issued in connection with acquisitions	$ —	$ 60,336	$ 119,682
Purchases of property and equipment and demonstration units in accounts payable and accrued liabilities	$ 2,960	$ 2,408	$ 5,264
FireEye Products business divestiture transaction costs in accounts payable and accrued liabilities	$ 3,399	$ —	$ —
Share repurchases of common stock in accounts payable and accrued liabilities	$ 11,483	$ —	$ —
Accretion of series A convertible preferred stock	$ 82	$ 4,653	$ —
Dividend on series A convertible preferred stock	$ 18,354	$ 1,050	$ —

See accompanying notes to consolidated financial statements.

MANDIANT, INC. (FORMERLY FIREEYE, INC.)

Notes to Consolidated Financial Statements

1. Description of Business and Summary of Significant Accounting Policies

Description of Business

Mandiant, Inc., formerly known as FireEye, Inc., with principal executive offices located in Reston, Virginia, was incorporated as NetForts, Inc. on February 18, 2004, under the laws of the State of Delaware, and changed its name to FireEye, Inc. on September 7, 2005. On October 4, 2021, the Company changed its name to Mandiant, Inc.

Mandiant, Inc. and its wholly owned subsidiaries (collectively, the "Company", "we", "us" or "our") provide intelligence-based cybersecurity solutions and services that allow organizations to prepare for, prevent, investigate, respond to and remediate cyber-attacks, including attacks that target on-premise, cloud and critical infrastructure environments.

Our portfolio of cybersecurity solutions and services is comprised of the following:

- Mandiant Advantage software-as-a-service (SaaS) platform with integrated modules for threat intelligence, security validation, attack surface management and security automation, managed services, and consulting services. Our solutions and services help customers minimize the risk of costly cybersecurity breaches by:
    - detecting and preventing advanced, targeted and evasive attacks missed by other security controls,
    - automating the investigation and triage of security alerts generated by Mandiant solutions, as well as security control solutions from other vendors,
    - providing visibility into the latest threats and the tools and techniques used by threat actors,
    - validating the effectiveness of existing cybersecurity controls against attacks before an attack occurs,
    - providing visibility and defensive insight into the attack surface an adversary may target, and
    - providing assessment, training and other strategic security consulting services that help organizations improve their resilience to attack.

The majority of our solutions and services are sold to end-customers directly, with a lesser percentage of sales to our end-customers sold through distributors, resellers, and strategic partners.

On May 29, 2021, we entered into an Asset Purchase Agreement (the "Purchase Agreement"), pursuant to which we agreed to sell the FireEye Products business to Magenta Buyer LLC ("Trellix"), which is backed by a consortium led by Symphony Technology Group ("STG"), in exchange for total cash consideration of $1.2 billion and assumption of certain assets and liabilities of the FireEye Products business as specified in the Purchase Agreement. As a result, the FireEye Products business was classified as discontinued operations in our consolidated financial statements and excluded from continuing operations and the related assets and liabilities were classified as held for sale. The transaction closed on October 8, 2021.

Unless otherwise noted, discussion in these Notes to Consolidated Financial Statements refers to our continuing operations. Refer to Note 2, "Discontinued Operations," for further information.

On August 4, 2021, we acquired Intrigue Corp. ("Intrigue"), a developer of surface attack management technology, for cash consideration of approximately $12.3 million. Intrigue's attack surface management technology will be integrated into the Mandiant Advantage platform, enabling organizations to discover, monitor and manage risk across their entire attack surface. The intangible assets acquired and net tangible liabilities assumed in the acquisition of Intrigue are presented in the balance sheet as continuing operations.

In November 2020, we acquired Respond Software, Inc. ("Respond Software"), a cybersecurity investigation automation company for a total purchase consideration of $177.6 million. The acquisition of Respond Software, a leader in automation of XDR, is intended to add significant capabilities to our Mandiant Advantage platform by automating threat detection and reducing the amount of analyst time necessary to investigate threats due to the reduction in false positives as well as to accelerate Respond Software's learning models with our unique expertise and threat intelligence. A portion of the goodwill generated by the Respond Software acquisition was allocated to the FireEye Products business based on relative fair value and was reported as held for sale. The amount of Respond Software goodwill reported as held for sale is $34.8 million. The intangible assets acquired and the net tangible liabilities assumed were retained in the sale of the FireEye Products business and are presented as continuing operations in the consolidated balance sheets.

In January 2020, we acquired Cloudvisory LLC ("Cloudvisory"), a provider of cloud visibility and control solutions. As consideration for the acquisition, we paid approximately $13.2 million in cash and assumed $0.3 million in net tangible liabilities. Pursuant to the sale of the FireEye Products business, the intangible assets acquired, including developed technology, and net tangible

liability assumed in this acquisition are reported as held for sale in the consolidated balance sheets. A portion of goodwill generated by the Cloudvisory acquisition totaling $1.8 million was allocated to the FireEye Products business based on relative fair value and is reported as held for sale.

In May 2019, we acquired Verodin, Inc. ("Verodin"), a security instrumentation platform company. As consideration for the acquisition, we paid $143.7 million in cash, issued 8,404,609 shares of our common stock with an estimated fair value of $119.7 million and recognized $1.5 million of the fair value of assumed stock options attributable to pre-combination services. The intangible assets acquired and net tangible liabilities assumed in the acquisition of Verodin are presented in the balance sheet as continuing operations.

Basis of Presentation and Consolidation

The consolidated financial statements include the accounts of Mandiant, Inc. and its wholly owned subsidiaries and have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). All intercompany balances and transactions have been eliminated in consolidation.

See Note 2, "Discontinued Operations," to our consolidated financial statements for additional information.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Such management estimates include, but are not limited to, determining the nature and timing of satisfaction of performance obligations, useful life of our security appliances that are dependent on intelligence and assessing the material rights associated with it, determining the standalone selling price ("SSP") of performance obligations, subscriptions and services, commissions expense including the period of benefit of customer acquisition cost, bonus expense, future taxable income, contract manufacturer liabilities, litigation and settlement costs and other loss contingencies, fair value of our equity awards, achievement of targets for performance stock units, fair value of the liability and equity components of the Convertible Senior Notes (as defined in Note 11), fair value of assets and liabilities sold in the divestiture, allocation of goodwill to discontinued operations, results of operations of the Company's discontinued operations and the purchase price allocation of acquired businesses. We base our estimates on historical experience and on assumptions that we believe are reasonable. Changes in facts or circumstances may cause us to change our assumptions and estimates in future periods, and it is possible that actual results could differ from current or revised future estimates.

Concentrations

Financial instruments that subject us to concentrations of credit risk consist primarily of cash and cash equivalents, short-term investments, and accounts receivable. We maintain a substantial portion of our cash and cash equivalents in money market funds invested in U.S. Treasury related obligations. Management believes that these financial institutions are financially sound and, accordingly, are subject to minimal credit risk. Deposits held with banks may exceed the amount of insurance provided on such deposits.

Our short-term investments primarily consist of notes and bonds issued by corporate institutions and U.S. Government agencies. All of our investments are highly-rated by credit rating agencies and are issued by organizations with reputable credit, and therefore bear minimal credit risk.

Our accounts receivables are primarily derived from a diverse set of customers across various geographical locations. We perform ongoing credit evaluations of our customers and generally do not require collateral on accounts receivable. We maintain an allowance for doubtful accounts for estimated potential credit losses. See Note 19, "Segment and Major Customers Information," for information on major customers.

We rely primarily on a single contract manufacturer to assemble our products. In some cases, we rely on sole suppliers for certain components.

Foreign Currency Translation and Transactions

The functional currency of our foreign subsidiaries is the U.S. dollar. We translate all monetary assets and liabilities denominated in foreign currencies into U.S. dollars using the exchange rates in effect at the balance sheet dates and other assets and liabilities using historical exchange rates.

Foreign currency denominated revenue and expenses have been re-measured using the average exchange rates in effect during each period. Foreign currency translation and transaction gains and losses have been included in other income (expense) and have not been significant for the years ended December 31, 2021, 2020 and 2019. For the years ended December 31, 2021, 2020 and 2019, we recognized a loss of $1.6 million, a gain of $0.6 million and a loss of $0.7 million, respectively.

Cash and Cash Equivalents

We consider all highly liquid investments with original maturities of three months or less at date of purchase to be cash equivalents. We determine the appropriate classification of our investments at the time of purchase, and evaluate such designation at each balance sheet date.

Short-term Investments

We classify our investments in debt and equity securities as available-for-sale and record these investments at fair value. Investments with an original maturity of three months or less at the date of purchase are considered cash equivalents, while all other investments are classified as short-term or long-term based on the nature of the investments, their maturities, and their availability for use in current operations.

We regularly review our investment portfolio to identify and evaluate investments that have indicators of possible impairment. An investment is impaired if the fair value of the investment is less than its cost. Fair value is calculated based on publicly available market information or other estimates determined by management. If the fair value of an investment is less than its amortized cost basis at the balance sheet date and if we do not intend to sell the investment, we consider available evidence to assess whether it is more likely than not that we will be required to sell the investment before the recovery of its amortized cost basis. Factors considered in our evaluation include, but are not limited to: general market conditions, the length of time and extent a security's fair value has been below its cost, the financial condition and near-term prospects of the investee, the credit quality of the security's issuer, likelihood of recovery and our intent and ability to hold the security for a period of time sufficient to allow for any anticipated recovery in value. For our debt instruments, we also evaluate whether we have the intent to sell the security or it is more likely than not that we will be required to sell the security before recovery of its cost basis.

Once an impairment is determined to be attributable to credit-related factors, allowance for credit losses (i.e., the credit loss component) is recognized as credit loss expense, a charge in other income (expense), net, on our consolidated statements of operations, and any remaining unrealized losses (i.e., the non-credit loss component), are included in accumulated other comprehensive income (loss) on our consolidated statements of convertible preferred stock and stockholders' equity.

Prior to 2020, we followed the guidance in Accounting Standards Codification ("ASC") 320 Investments—Debt and Equity Securities in determining whether unrealized losses were other than temporary. In June 2016, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") 2016-13—Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments ("Topic 326"). We adopted Topic 326 on January 1, 2020, and now consider whether unrealized losses have resulted from a credit loss or other factors. We concluded that an allowance for credit losses was unnecessary as of December 31, 2021 and 2020 and there was no impairment charge for any unrealized losses in 2019.

Fair Value of Financial Instruments

We define fair value as the price that would be received from selling an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities which are required to be recorded at fair value, we consider the principal or most advantageous market in which to transact and the market-based risk. We apply fair value accounting for all financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis. The carrying amounts reported in the consolidated financial statements approximate the fair value for cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities due to their short-term nature.

Property and Equipment

Property and equipment are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the assets, generally two to five years.

The estimated useful lives of property and equipment are described below:

Property and Equipment	Useful Life
Computer equipment and software	2 to 5 years
Leasehold improvements	Shorter of estimated useful life or remaining lease term
Furniture and fixtures	5 years
Machinery and equipment	2 to 5 years

Leases

We determine if an arrangement is a lease and classification of that lease, if applicable, at inception based on: (1) whether the contract involves the use of a distinct identified asset, (2) whether we obtain the right to substantially all the economic benefits from the use of the asset throughout the period, and (3) whether we have a right to direct the use of the asset. We currently do not have any

finance leases. We have elected to not recognize a lease liability or right-of-use ("ROU") asset for short-term leases (leases with a term of twelve months or less and do not include an option we are reasonably certain to exercise to purchase the underlying asset).

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make minimum lease payments arising from the lease. ROU assets are initially measured at amounts, which represents the present value of the lease payments over the lease, plus any initial direct costs incurred and less any lease incentives received. Annually, all ROU assets are reviewed for impairment. The lease liability is initially measured at lease commencement date based on the present value of minimum lease payments over the lease term. As the rates implicit in the leases are not readily available, we use our Incremental Borrowing Rate ("IBR") based on the information available at commencement date of a lease in determining the present value of lease payments. The determination of our IBR requires judgment. We took into consideration our recent debt offerings as well as external credit rating factors when determining our current IBR. Our lease terms may include options to extend or terminate the lease. We do not include these options in our minimum lease terms unless we believe they are reasonably certain to be exercised. We have lease agreements with lease and non-lease components, which are generally accounted for separately. Non-lease components (i.e. common area maintenance) are separate from the lease components and are paid on actual usage. Therefore, the non-lease components are not included in the determination of the ROU asset or lease liability and are reflected as an expense in the period incurred. Our operating lease costs for operating lease payments are recognized on a straight-line basis over the lease term.

We also sublease certain office space to third-parties. Our subleases consist of office space which was vacated as part of restructuring activities. We do not recognize ROU assets or lease liabilities associated with subleased office spaces in which we are the sublessor. Sublease income is recognized ratably over the term of the agreement.

Discontinued Operations

We consider assets to be held for sale when management commits to a formal plan to actively market the assets for sale at a price reasonable in relation to fair value, it is unlikely that significant changes will be made to the plan, the assets are available for immediate sale in their present condition, an active program to locate a buyer and other actions required to complete the sale have been initiated and the sale of the assets is expected to be completed within one year. Upon designation as held for sale, we record the carrying value of the assets at the lower of the then current carrying value or estimated fair value, less costs to sell. Fair value is determined based on external data available or management's estimates, depending upon the nature of the assets and liabilities. Goodwill is allocated to the FireEye Products business and designated as held for sale based on the relative fair values of the FireEye Products business and the remaining business. The fair value is determined based on the Company's market capitalization and management's estimate of the control premium a buyer would pay to obtain control of the business. Following recording as such, assets held for sale are not depreciated or amortized thereafter.

If the disposal of the component of an entity (or group of components) represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results, it meets the criteria for discontinued operations. The results of discontinued operations, as well as any gain or loss on the disposal transaction, are presented separately, net of tax, from the results of continuing operations for all periods presented. The revenue and expenses included in the results of discontinued operations are the revenue and direct operating expenses incurred by the discontinued component that may be reasonably segregated from the revenue and costs of the ongoing operations of the Company. The assets and liabilities for the FireEye Products business have been accounted for as assets and liabilities held for sale in our consolidated balance sheets as the sale was completed on October 8, 2021. The operating results have been included in discontinued operations in our consolidated financial statements and excluded from continuing operations for all periods presented. The consolidated statement of cash flows presents combined cash flows from continuing operations with cash flows from discontinued operations within each cash flow statement category. The prior periods have been adjusted to reflect the assets and liabilities held for sale and discontinued operations.

Impairment of Long-Lived Assets

We evaluate events and changes in circumstances that could indicate carrying amounts of long-lived assets may not be recoverable. When such events or changes in circumstances occur, we assess the recoverability of long-lived assets by determining whether or not the carrying value of such assets will be recovered through undiscounted expected future cash flows. If the total of the future undiscounted cash flows is less than the carrying amount of an asset, we record an impairment charge for the amount by which the carrying amount of the assets exceeds the fair value of the asset. Through December 31, 2021 we have not written down any of our long-lived assets as a result of impairment.

Business Combinations

We have accounted for all of our acquisitions using the acquisition method. The Company allocates the fair value of purchase consideration to the tangible assets acquired, liabilities assumed and intangible assets acquired, based on their estimated fair values. The excess of the fair value of purchase consideration over the values of these identifiable assets and liabilities is recorded as goodwill.

When determining the fair value of assets acquired and liabilities assumed, management makes significant estimates and assumptions, especially with respect to identifiable intangible assets. Significant assumptions used in valuing certain identifiable intangible assets include, but are not limited to, expected long-term market growth, future expected operating expenses, costs of capital, and appropriate discount rates. Management's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and, as a result, actual results may differ from estimates.

Goodwill and Purchased Intangible Assets

Goodwill represents the excess of the aggregate purchase price paid over the fair value of the net tangible and identifiable intangible assets acquired. In the valuation of our goodwill, we must make assumptions regarding estimated future cash flows to be derived from our business. If these estimates or their related assumptions change in the future, we may be required to record impairment for these assets. Goodwill is not amortized and is tested for impairment at least annually or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The Company has determined that it operates as one reporting unit and has selected December 1 as the date to perform its annual impairment test.

We perform the impairment testing by first assessing qualitative factors to determine whether existence of events or circumstances leads to a determination that it is more likely than not that the fair value of its reporting unit is less than its carrying amount. In assessing the qualitative factors, we consider the impact of certain key factors including macroeconomic conditions, industry and market considerations, management turnover, changes in regulation, litigation matters, changes in enterprise value, and overall financial performance. If, after assessing the totality of events or circumstances, the Company determines it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then it performs a quantitative assessment to determine whether there is any impairment. To calculate any potential impairment, the Company compares the fair value of a reporting unit with its carrying amount, including goodwill. There was no impairment of goodwill recorded for the years ended December 31, 2021, 2020 or 2019.

Purchased intangible assets with finite lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets. Purchased intangible assets with indefinite lives are assessed for potential impairment annually, or when events or circumstances indicate that their carrying amounts might be impaired.

Contract Balances

Accounts Receivable

Trade accounts receivable are recorded at the billable amount where we have the unconditional right to bill, net of allowances for doubtful accounts. The allowance for doubtful accounts is based on our assessment of the collectability of accounts. Management regularly reviews the adequacy of the allowance for doubtful accounts by considering the age of each outstanding invoice, each customer's expected ability to pay and collection history, when applicable, to determine whether a specific allowance is appropriate. Accounts receivable deemed uncollectible are charged against the allowance for doubtful accounts when identified.

Deferred Revenue (Contract Liabilities) and Contract Assets

Deferred revenue consists of amounts for which we have the unconditional right to bill, but have not been recognized as revenue because the related subscriptions or services have not been transferred. These amounts include non-refundable customer deposits that are prepaid for future performance obligations, such as delivery of our Expertise on Demand units and pre-paid retainers. Deferred revenue that will be realized during the succeeding 12-month period is recorded as current, and the remaining deferred revenue is recorded as non-current. Our contract assets consist of assets typically resulting from when revenue has been recognized but we do not have the right to bill the customer due to allocation of transaction price, and such amounts have been included in prepaid expenses and other current assets. Our contract assets were immaterial as of December 31, 2021 and 2020.

In instances where the timing of revenue recognition differs from the timing of invoicing, we have determined our contracts generally do not include a significant financing component. The primary purpose of our invoicing terms is to provide customers with simplified and predictable ways of purchasing our solutions and services, not to receive financing from our customers or to provide customers with financing. Examples include invoicing at the beginning of a subscription term with revenue recognized ratably over the contract period.

Assets Recognized from Costs to Obtain a Contract with a Customer

Deferred Commissions

Our customer acquisition costs are primarily related to sales commissions and related payroll taxes earned by our sales force and such costs are considered incremental costs to obtain a contract. Sales commissions for initial contracts are deferred and then amortized taking into consideration the pattern of transfer to which the asset relates and may include expected renewal periods where renewal commissions are not commensurate with the initial commissions period. We typically recognize the initial commissions over the longer of the customer relationship (generally estimated to be three years) or over the same period as the initial revenue arrangement to which these costs relate. Renewal commissions not commensurate with the initial commissions paid are generally amortized over the renewal period. Deferred commissions that will amortize within the succeeding twelve month period are classified

as current, and included in prepaid expenses and other current assets on the consolidated balance sheets. The remaining balance is classified as non-current, and included in deposits and other long-term assets. As of December 31, 2021 and 2020, the amount of deferred commissions included in prepaid expenses and other current assets was $23.9 million and $14.3 million, respectively. The amount of deferred commissions included in deposits and other long-term assets as of December 31, 2021 and 2020 was $21.4 million and $11.4 million, respectively.

Revenue Recognition

Revenue from Contracts with Customers

Revenue is recognized when all of the following criteria are met:

- ***Identification of the contract, or contracts, with a customer -*** A contract with a customer exists when (i) we enter into an enforceable contract with a customer that defines each party's rights regarding the goods or services to be transferred and identifies the payment terms related to these goods or services, (ii) the contract has commercial substance and the parties are committed to perform, and (iii) we determine that collection of substantially all consideration to which it will be entitled in exchange for goods or services that will be transferred is probable based on the customer's intent and ability to pay the promised consideration.

- ***Identification of the performance obligations in the contract -*** Performance obligations promised in a contract are identified based on the goods or services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the goods or service either on its own or together with other resources that are readily available from third parties or from us, and are distinct in the context of the contract, whereby the transfer of the goods or services is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised goods or services, we apply judgment to determine whether promised goods or services are capable of being distinct and distinct in the context of the contract. If these criteria are not met the promised goods or services are accounted for as a combined performance obligation.

- ***Determination of the transaction price -*** The transaction price is determined based on the consideration to which we will be entitled in exchange for transferring goods or services to the customer adjusted for estimated variable consideration, if any. We typically estimate the transaction price impact of discounts offered to the customers for early payments on receivables or rebates based on channel partner sales achievements. Constraints are applied when estimating variable considerations based on historical experience where applicable.

- ***Allocation of the transaction price to the performance obligations in the contract -*** If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative SSP basis. Determination of SSP requires judgment. We determine standalone selling price taking into account available information such as historical selling prices of the performance obligation, geographic location, overall strategic pricing objective, market conditions and internally approved pricing guidelines related to the performance obligations.

- ***Recognition of revenue when, or as, we satisfy performance obligation -*** We satisfy performance obligations either over time or at a point in time as discussed in further detail below. Revenue is recognized at or over the time the related performance obligation is satisfied by transferring a promised good or service to a customer.

Nature of Solutions and Services

We generate revenue from the sales of cloud based subscriptions, managed services and professional services, primarily through our indirect relationships with our partners or direct relationships with end customers through our direct sales force. We account for our performance obligations in accordance with Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers, regarding Accounting Standards Codification Topic 606 ("ASC 606"), and all related interpretations.

Revenue from subscriptions to our cloud-based solutions, which allow customers to use our hosted security software over a contracted period without taking possession of the software and managed services where we provide managed detection and response services for customers, are recognized over the contractual term.

Professional services, which include incident response, security assessments, and other strategic security consulting services are offered on a time-and-materials basis or through fixed fee arrangements, and we recognize the associated revenue as the services are delivered.

Discontinued Operations

Revenue from discontinued operations was generated primarily from sales of network, email, endpoint security, Helix SIEM and Cloudvisory solutions deployed on a customer's premises, either as an integrated security appliance or a distributed hybrid on-premise/private cloud configurations. As a single performance obligation, revenue from sales of appliance hardware and related subscriptions was recognized ratably over the contractual term, typically one to three years. Such contracts typically contained a material right of

renewal option that allows the customer to renew their Dynamic Threat Intelligence ("DTI") cloud and support subscriptions for an additional term at a discount to the original purchase price of the single performance obligation. For contracts that contained a material right of renewal option, the value of the performance obligation allocated to the renewal was recognized ratably over the period between the end of the initial contractual term and end of the estimated useful life of the related appliance and license. A small portion of our revenue in the product and related subscription and support revenue related to discontinued operations was derived from the sale of our network forensics appliances and our central management system appliances. These appliances were not dependent on regular security intelligence updates, and revenue from these appliances was therefore recognized when ownership was transferred to our customer, typically at shipment.

Advertising Costs

Advertising costs, which are expensed and included in sales and marketing expense when incurred, were $10.9 million, $4.2 million and $3.2 million during the years ended December 31, 2021, 2020 and 2019, respectively.

Software Development Costs

The costs to develop internal-use software are subject to capitalization and begin amortizing once the software is substantially ready for use. These costs are included in property and equipment and are generally amortized over 3 years. All other software development costs are expensed as incurred and included in research and development expense on the Consolidated Statements of Operations.

Stock-Based Compensation

Compensation expense related to stock-based transactions, including employee and non-employee director awards and our 2013 Employee Stock Purchase Plan (the "ESPP"), is measured and recognized in the financial statements based on fair value. The fair value of each option award is estimated on the grant date using the Black-Scholes option-pricing model and a single option award approach. This model requires that at the date of grant we determine the fair value of the underlying common stock, the expected term of the award, the expected volatility of the price of our common stock, risk-free interest rates, and expected dividend yield of our common stock. The fair value of restricted stock awards and restricted stock units is based on the closing market price of our common stock on the date of grant. The stock-based compensation expense is recognized using a straight-line basis over the requisite service period of the entire awards, which is generally four years. Performance-based awards are subject to performance conditions. We recognize compensation expense over the requisite service period of each vesting tranche, when it becomes probable that the performance criteria set by our Board of Directors will be achieved.

We recognize forfeitures as they occur, and no longer estimate a forfeiture rate when calculating the stock-based compensation for our equity awards.

We account for stock options issued to non-employees based on the fair value of the awards determined using the Black-Scholes option-pricing model. The fair value of stock options granted to non-employees is remeasured as the stock options vest, and the resulting change in value, if any, is recognized in the statement of operations during the period the related services are rendered.

Income Taxes

We account for income taxes 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 recognized in our financial statements or tax returns. In addition, deferred tax assets are recorded to reflect the future benefit of utilizing net operating losses and research and development credit carry forwards. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount expected to be realized. We recognize taxes on Global Intangible Low-Taxed Income (“GILTI”) as a current period expense when incurred.

We apply the authoritative accounting guidance prescribing a threshold and measurement attribute for the financial recognition and measurement of a tax position taken or expected to be taken in a tax return. We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation settlement. The second step is to estimate and measure the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. We recognize interest and penalties related to unrecognized tax benefits within the income tax expense line in the accompanying consolidated statements of operations. Accrued interest and penalties are included within other long-term liabilities in the consolidated balance sheets.

Common Stock Repurchase Program

On June 2, 2021, we announced a stock repurchase program for the repurchase of up to $500 million of our common stock. There is no expiration date on this authorization, and we may suspend, amend or discontinue the repurchase program at any time. During the year ended December 31, 2021, we cumulatively repurchased 16.8 million shares of our common stock for $300.0 million, at an average repurchase price of approximately $17.81 per share. The repurchases were recorded to additional paid-in capital as we are in an accumulated net deficit position.

Net Income (Loss) Per Share

We calculate our basic and diluted net income (loss) per share in conformity with the two-class method required for companies with participating securities based upon income (loss) from continuing operations. Under the two-class method, net income (loss) is determined by allocating undistributed earnings, calculated as net income (loss) less current period convertible preferred stock cumulative dividends, between common stock and the convertible preferred stock. In computing diluted net income, undistributed earnings are re-allocated to reflect the potential impact of dilutive securities. Our basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period. The diluted net loss per share attributable to common stockholders is computed by giving effect to all potential dilutive common stock equivalents outstanding for the period. For purposes of this calculation, convertible preferred stock, options to purchase common stock and convertible senior notes are considered common stock equivalents, but have been excluded from the calculation of diluted net loss per share as their effect is anti-dilutive.

Convertible Senior Notes

We allocated the principal amount of the Convertible Senior Notes between its liability and equity components. The carrying amount of the liability component was determined by measuring the fair value of a similar debt instrument of similar credit quality and maturity that did not have the conversion feature. The carrying amount of the equity component, representing the embedded conversion option, was determined by deducting the fair value of the liability component from the principal amount of the Convertible Senior Notes as a whole. The equity component is included in additional paid-in-capital in consolidated balance sheets and is not remeasured as long as it continues to meet the conditions for equity classification. The excess of the principal amount of the Convertible Senior Notes over the carrying amount of the liability component was recorded as a debt discount, and is being amortized to interest expense using the effective interest method through the first date holders have the right to require us to repurchase all or any portion of their Convertible Senior Notes; the first put date (see Note 11, "Convertible Senior Notes"). We allocate the total amount of transaction costs incurred to the liability and equity components using the same proportions as the proceeds from the Convertible Senior Notes. Transaction costs attributable to the liability component were recorded as a direct deduction from the liability component of the Convertible Senior Notes, and are being amortized to interest expense using the effective interest method through the first put date. Transaction costs attributable to the equity component were netted with the equity component of the Convertible Senior Notes in additional paid-in capital.

Recently Adopted Accounting Pronouncements

Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract

In August 2018, the FASB issued ASU 2018-15, Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract. This standard requires capitalization of the implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. Further, the standard also requires the Company to expense the capitalized implementation costs of a hosting arrangement over the term of the hosting arrangement. We adopted the standard effective January 1, 2020. The standard did not have a significant impact on our consolidated financial statements.

Simplifying the Test for Goodwill Impairment

In January 2017, the FASB issued ASU 2017-04, Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. This standard eliminates the requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge (i.e. Step 2 of the current guidance), instead measuring the impairment charge as the excess of the reporting unit's carrying amount over its fair value (i.e. Step 1 of the current guidance). We adopted the standard effective January 1, 2020. The standard did not have a significant impact on our consolidated financial statements.

Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This standard changes the impairment model for most financial assets and certain other instruments by introducing a current expected credit loss ("CECL") model. The CECL model is a more forward-looking approach based on expected losses rather than incurred losses, requiring entities to estimate and record losses expected over the remaining contractual life of an asset. The guidance was effective for the Company beginning in the first quarter of 2020. We adopted the standard effective January 1, 2020. The standard did not have a significant impact on our consolidated financial statements.

Simplifying Accounting for Income Taxes

In December 2019, the FASB issued ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes. This standard simplifies the accounting for income taxes by eliminating certain exceptions to the guidance in Topic 740 related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The new guidance also simplifies aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill and allocating consolidated income taxes to separate financial statements of entities not subject to income tax. ASU 2019-12 is effective for annual and interim periods in fiscal years beginning after December 15, 2020. Early adoption was permitted and we adopted ASU 2019-12 as of January 1, 2020. The adoption did not have a significant impact on our consolidated financial statements.

Recent Legislation

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security (CARES) Act was enacted and signed into U.S. law to provide economic relief to individuals and businesses facing economic hardship as a result of the COVID-19 pandemic. Changes in tax laws or rates are accounted for in the period of enactment. The income tax provisions of the CARES Act do not have a significant impact on our current taxes, deferred taxes, or uncertain tax positions.

Recent Accounting Pronouncements Not Yet Adopted

In August 2020, the FASB issued ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity (ASU 2020-06): This standard simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts in an entity's own equity. Among other changes, ASU 2020-06 removes from U.S. GAAP the liability and equity separation model for convertible instruments with a cash conversion feature, and as a result, after adoption, entities will no longer separately present in equity an embedded conversion feature for such debt. Similarly, the embedded conversion feature will no longer be amortized into income as interest expense over the life of the instrument. Instead, entities will account for a convertible debt instrument wholly as debt unless (1) a convertible instrument contains features that require bifurcation as a derivative under ASC Topic 815, Derivatives and Hedging, or (2) a convertible debt instrument was issued at a substantial premium. Among other potential impacts, this change is expected to reduce reported interest expense, increase reported net income, and result in a reclassification of certain conversion feature balance sheet amounts from stockholders' equity to liabilities as it relates to the Convertible Senior Notes. Additionally, ASU 2020-06 requires the application of the if-converted method to calculate the impact of convertible instruments on diluted earnings per share (EPS), which is consistent with the Company's accounting treatment under the current standard. ASU 2020-06 is effective for fiscal years beginning after December 15, 2021, with early adoption permitted for fiscal years beginning after December 15, 2020, and can be adopted on either a fully retrospective or modified retrospective basis. We are adopting the standard on January 1, 2022, using the modified retrospective basis. We expect the adoption to result in an approximately $200.0 million decrease to the opening balance of accumulated deficit, approximately $270.0 million decrease to the opening balance of additional paid-in capital, and approximately $70.0 million increase to the opening balance of the Convertible Senior Notes, net on the consolidated balance sheet.

In October 2021, the FASB issued ASU 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. This standard requires an acquiring entity to apply Topic 606, Revenue from Contracts with Customers, to recognize and measure contract assets and contract liabilities in a business combination in a manner consistent with how the acquiree recognized and measured them in its preacquisition financial statements. ASU 2021-08 is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal year. Early adoption of the amendments is permitted, including adoption in an interim period. We are currently evaluating the timing and overall impact of this standard on our consolidated financial statements.

2. Discontinued Operations

Divestiture of FireEye Products business

On May 29, 2021, we entered into the Purchase Agreement, pursuant to which we agreed to sell the FireEye Products business to Trellix in exchange for total cash consideration of $1.2 billion, which closed on October 8, 2021.

The following table presents the gain associated with the sale, presented in the results of our discontinued operations below (dollars in thousands):

Purchase price, net of adjustments (1)	$	1,129,
Carrying value of net liabilities disposed of		115,
Pre-tax gain on divestiture before transaction costs		1,244,
Transaction costs (2)		(29,
Pre-tax gain on divestiture of FireEye Products business		1,214,
Income tax expense on gain on divestiture of FireEye Products business		(11,
Total gain on divestiture of FireEye Products business	$	1,203,

(1) Upon the closing of the sale on October 8, 2021, we received the initial purchase price of $1.2 billion, which reflects the $1.2 billion purchase price, adjusted for cash balances transferred to Trellix. We entered into a Reseller and Market Cooperation Agreement ("RSA") with Trellix, described further below. We determined that the terms of the RSA are off-market. Accordingly, the purchase price was adjusted by $38.5 million, which represented the fair value of the off-market component of the RSA. The Company agreed to reimburse Trellix for certain unvested equity awards liability pertaining to transferred employees which will now be paid by Trellix to such employees in cash over an eighteen-month period. The maximum amount of reimbursement shall not exceed $40.0 million and this has been recorded as an adjustment to the purchase price. A similar adjustment has been made for reimbursement for stamp duty liability transferred to Trellix for $2.2 million.

(2) Transaction costs of $29.8 million primarily relate to commission, legal fees, third-party consulting, accounting fees and other costs to facilitate the separation of the FireEye Products business. These costs are recorded within net income from discontinued operations, net of income taxes, in the consolidated statements of operations.

The following table summarizes the carrying value of assets and liabilities sold (dollars in thousands):

Cash and cash equivalents	$	2,475
Accounts receivable, net of allowance for doubtful accounts of $924		81,648
Inventories		7,593
Prepaid expenses and other current assets		64,335
Property and equipment, net		30,602
Operating lease right-of-use assets, net		2,643
Goodwill		313,873
Intangible assets, net		4,292
Deposits and other long-term assets		53,246
Accounts payable		(14,381)
Accrued and other current liabilities		(3,783)
Deferred revenue, current		(636,118)
Operating lease liabilities		(2,647)
Accrued compensation		(18,998)
Total net liabilities sold	$	(115,220)

At the closing of the sale of the FireEye Products business on October 8, 2021, we entered into a Transition Services Agreement ("TSA") with Trellix. The TSA is designed to ensure and facilitate an orderly transfer of business operations. The services provided by us under the TSA will run up to 18 months following the closing, subject to the ability of Trellix to earlier terminate any such services. Income for the TSA was $12.9 million and expenses were $11.1 million for the year ended December 31, 2021 and was recorded as part of other income (expense), net in our consolidated statements of operations.

Discontinued Operations

The following table presents the aggregate amounts of the classes of assets and liabilities of the FireEye Products business classified as discontinued operations (dollars in thousands):

	December 31, 2020
MAJOR CLASSES OF ASSETS	
Current:	
Cash and cash equivalents	$ 3,220
Accounts receivable, net of allowance for doubtful accounts of $1,334	83,012
Inventories	4,023
Prepaid expenses and other current assets	63,699
Total current assets held for sale	153,954
Non-current:	
Property and equipment, net	15,434
Goodwill	313,924
Intangible assets, net	5,512
Deposits and other long-term assets	56,580
Operating lease right-of-use assets, net	1,524
Total assets classified as held for sale	$ 546,928
MAJOR CLASSES OF LIABILITIES	
Current:	
Accounts payable	$ 1,080
Accrued and other current liabilities	3,510
Deferred revenue, current	387,353
Operating lease liabilities	1,468
Accrued compensation	23,880
Total current liabilities held for sale	417,291
Non-current:	
Deferred revenue, non-current	284,851
Operating lease liabilities	400
Total liabilities classified as held for sale	$ 702,542
Commitments and contingencies	
Contract manufacturer commitments	$ 5,996

The following table summarizes the results of the discontinued operations (dollars in thousands):

	Year Ended December 31,		
	2021	2020	2019
MAJOR LINE ITEMS CONSTITUTING NET INCOME			
Revenue from discontinued operations	$ 409,658	$ 540,876	$ 557,783
Cost of revenue	84,515	119,079	116,169
Research and development	88,159	119,467	154,277
Sales and marketing	110,423	152,436	158,597
Restructuring charges	—	5,423	—
Net income from discontinued operations before income taxes	$ 126,561	$ 144,471	$ 128,740
Pre-tax gain on divestiture of FireEye Products business	1,214,715	—	—
Income before income taxes	1,341,276	144,471	128,740
Provision for income taxes	13,035	2,434	23,229
Net income from discontinued operations, net of income taxes	$ 1,328,241	$ 142,037	$ 105,511

Provision for income tax of discontinued operations was $13.0 million for the year ended December 31, 2021, which includes $11.6 million of income tax expense pertaining to the gain on divestiture of the FireEye Products business. The remaining $1.4 million of tax expense is primarily attributable to income taxes on our foreign entities remunerated on a cost-plus basis and withholding taxes.

In October 2021, an amendment to the Purchase Agreement with Trellix for the purchase of the FireEye Products business was executed. The amendment modified certain provisions regarding assets and liabilities to be transferred, the timing and procedures for transfer of certain assets in foreign jurisdictions and certain employees, in connection with the sale. The amendments also include certain other modifications or clarifications of the Purchase Agreement. Per the amendments, our December 31, 2020 consolidated balance sheet reflects changes in the assets and liabilities that were determined to be part of discontinued operations. These changes are reflected in the information presented above and all relevant disclosures.

The following table presents significant non-cash items and capital expenditures of discontinued operations:

	Year Ended December 31,		
	2021	**2020**	**2019**
Depreciation	$ 4,498	$ 11,589	$ 15,459
Amortization	1,220	4,606	5,463
Additions to property and equipment	15,980	7,726	14,342

3. Fair Value Measurements

The accounting guidance for fair value measurements provides a framework for measuring fair value on either a recurring or nonrecurring basis, whereby the inputs used in our valuation techniques are assigned a hierarchical level. The following are the three levels of inputs to measure fair value:

- *Level 1:* Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.
- *Level 2:* Inputs that reflect quoted prices for identical assets or liabilities in less active markets; quoted prices for similar assets or liabilities in active markets; benchmark yields, reported trades, broker/dealer quotes, inputs other than quoted prices that are observable for the assets or liabilities; or inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- *Level 3:* Unobservable inputs that reflect our own assumptions incorporated in valuation techniques used to measure fair value. These assumptions are required to be consistent with market participant assumptions that are reasonably available.

We consider an active market to be one in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis, and consider an inactive market to be one in which there are infrequent or few transactions for the asset or liability, the prices are not current, or price quotations vary substantially either over time or among market makers. Where appropriate, our own or the counterparty's non-performance risk is considered in measuring the fair values of assets.

The following table presents our assets and liabilities measured at fair value on a recurring basis using the above input categories (in thousands):

	As of December 31, 2021				As of December 31, 2020			
Description	**Level 1**	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
Assets								
Cash equivalents:								
Money market funds	$ 309,468	$ —	$ —	$ 309,468	$ 32,954	$ —	$ —	$ 32,954
Commercial paper	—	179,964	—	179,964	—	—	—	—
Corporate notes and bonds	—	8,194	—	8,194	—	—	—	—
U.S. Treasuries	—	149,998	—	149,998	—	—	—	—
Total cash equivalents	$ 309,468	$ 338,156	$ —	$ 647,624	$ 32,954	$ —	$ —	$ 32,954
Short-term investments:								
Certificates of deposit	—	6,814	—	6,814	—	2,752	—	2,752
Commercial paper	—	9,994	—	9,994	—	19,994	—	19,994
Corporate notes and bonds	—	649,408	—	649,408	—	437,652	—	437,652
U.S. Treasuries	—	157,342	—	157,342	—	74,934	—	74,934
U.S. Government agencies	—	215,781	—	215,781	—	89,492	—	89,492
Total short-term investments	$ —	$ 1,039,339	$ —	$ 1,039,339	$ —	$ 624,824	$ —	$ 624,824
Total assets measured at fair value	$ 309,468	$ 1,377,495	$ —	$ 1,686,963	$ 32,954	$ 624,824	$ —	$ 657,778

Additionally, we have a restructuring liability related to certain real estate facilities which was calculated based on the present value of future lease payments, less estimated sublease income, discounted at a rate commensurate with our current cost of financing. This non-recurring fair value measurement is considered to be a Level 3 measurement due to the use of significant unobservable inputs. To the extent that actual sublease income or the timing of subleasing these facilities is different than initial estimates, we will adjust the restructuring liability in the period during which such information becomes known. See Note 7, "Restructuring Charges," for a reconciliation of this liability.

We measure certain assets, including goodwill, intangible assets and our equity-method investment in a privately held company at fair value on a nonrecurring basis when there are identifiable events or changes in circumstances that may have a significant adverse impact on the fair value of these assets.

The estimated fair value of the Convertible Senior Notes as of December 31, 2021 was determined to be $1.0 billion, based on quoted market prices. We consider the fair value of the Convertible Senior Notes to be a Level 2 measurement as they are not actively traded.

4. Investments

Our investments consisted of the following (in thousands):

	As of December 31, 2021					
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Cash and Cash Equivalents	Short-Term Investments
Certificates of deposit	$ 6,814	$ 21	$ (21)	$ 6,814	$ —	$ 6,814
Commercial paper	189,958	6	(6)	189,958	179,964	9,994
Corporate notes and bonds	658,317	$ 626	(1,341)	657,602	8,194	649,408
U.S. Treasuries	307,634	—	(294)	307,340	149,998	157,342
U.S. Government agencies	216,437	1	(657)	215,781	—	215,781
Total	$ 1,379,160	$ 654	$ (2,319)	$ 1,377,495	$ 338,156	$ 1,039,339

	As of December 31, 2020					
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Cash and Cash Equivalents	Short-Term Investments
Certificates of deposit	$ 2,679	$ 73	$ —	$ 2,752	$ —	$ 2,752
Commercial paper	19,994	—	—	19,994	—	19,994
Corporate notes and bonds	433,445	4,248	(41)	437,652	—	437,652
U.S. Treasuries	74,914	26	(6)	74,934	—	74,934
U.S. Government agencies	89,451	54	(13)	89,492	—	89,492
Total	$ 620,483	$ 4,401	$ (60)	$ 624,824	$ —	$ 624,824

The following tables present the gross unrealized losses and related fair values of our investments that have been in a continuous unrealized loss position (in thousands):

	As of December 31, 2021					
	Less Than 12 Months		Greater Than 12 Months		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Certificates of deposit	$ 4,846	$ (21)	$ —	$ —	$ 4,846	$ (21)
Commercial paper	99,975	(6)	—	—	99,975	(6)
Corporate notes and bonds	454,374	(1,334)	7,576	(7)	461,950	(1,341)
U.S. Treasuries	207,341	(294)	—	—	207,341	(294)
U.S. Government agencies	200,795	(642)	9,985	(15)	210,780	(657)
Total	$ 967,331	$ (2,297)	$ 17,561	$ (22)	$ 984,892	$ (2,319)

	As of December 31, 2020					
	Less Than 12 Months		Greater Than 12 Months		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Certificates of deposit	$ —	$ —	$ —	$ —	$ —	$ —
Commercial paper	4,997	—	—	—	4,997	$ —
Corporate notes and bonds	92,855	(41)	870	—	93,725	(41)
U.S. Treasuries	42,799	(6)	—	—	42,799	(6)
U.S. Government agencies	37,488	(13)	1,700	—	39,188	(13)
Total	$ 178,139	$ (60)	$ 2,570	$ —	$ 180,709	$ (60)

Unrealized losses related to these investments are due to interest rate fluctuations as opposed to credit quality. In addition, we do not intend to sell, and it is not more likely than not that we would be required to sell, these investments before recovery of their cost basis. As a result, there is no other-than-temporary impairment for these investments as of December 31, 2021 and 2020.

The following table summarizes the contractual maturities of our investments at December 31, 2021 (in thousands):

	Amortized Cost	Fair Value
Due within one year	$ 538,939	$ 539,302
Due within one to three years	502,064	500,037
Total	$ 1,041,003	$ 1,039,339

All available-for-sale securities have been classified as current, based on management's intent and ability to use the funds in current operations.

5. Property and Equipment

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

	As of December 31,	
	2021	2020
Computer equipment and software	$ 98,163	$ 139,147
Leasehold improvements	21,002	56,401
Furniture and fixtures	6,026	12,955
Machinery and equipment	16	160
Total property and equipment	$ 125,207	$ 208,663
Less: accumulated depreciation	(78,878)	(144,327)
Total property and equipment, net	$ 46,329	$ 64,336

During the years ended December 31, 2021, 2020 and 2019 we capitalized $16.6 million, $11.2 million and $8.2 million, respectively, of software development costs related to our platform and cloud subscription offerings. Amortization expense related to capitalized software development costs during the years ended December 31, 2021, 2020 and 2019 was $11.6 million, $10.5 million and $5.7 million, respectively.

Depreciation expense related to property and equipment during the years ended December 31, 2021, 2020 and 2019 was $26.5 million, $24.0 million and $21.1 million, respectively.

6. Business Combinations

Acquisition of Verodin

On May 28, 2019, we acquired all outstanding shares of privately held Verodin, a security instrumentation platform company. We have incorporated Verodin technology into our platform and analytics capabilities. In connection with this acquisition, we paid cash consideration of $143.7 million and issued 8,404,609 shares of our common stock with an estimated fair value of $119.7 million. We also assumed unvested stock options, which are now exercisable for our common stock, of which $1.5 million of the fair value has been accounted for as consideration for assumed awards pertaining to pre-combination service prior to acquisition. Based on the above, total purchase consideration for Verodin was $264.9 million.

The acquisition of Verodin was accounted for in accordance with the acquisition method of accounting for business combinations with Mandiant as the accounting acquirer. We expensed the related acquisition costs of $0.6 million in general and administrative expenses. Under the acquisition method of accounting, the total purchase consideration is allocated to the tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values. The total purchase price of $264.9 million was allocated using information currently available to us. Pro forma financial information has not been presented for this acquisition as the impact to our consolidated financial statements was not material. Allocation of the purchase price is as follows (in thousands):

	Amount
Net tangible assets assumed	$ 15,036
Intangible assets	45,200
Deferred tax liability	(1,152)
Goodwill	205,798
Total purchase price allocation	$ 264,882

The purchase price exceeded the fair value of the net tangible assets and identifiable intangible assets acquired, resulting in the recognition of goodwill. Goodwill is primarily attributable to expected synergies in our subscription offerings and cross-selling opportunities. None of the goodwill is expected to be deductible for U.S. federal income tax purposes.

Intangible assets consist primarily of developed technology, customer relationships, trade name and contract backlog. Intangible assets attributable to developed technology include a combination of patented and unpatented technology, trade secrets, computer software and research processes that represent the foundation for the existing and planned new products to facilitate the generation of new content. Customer relationship intangibles relate to Verodin's ability to sell current and future content, as well as products built

around this content, to its existing customers. Trade name is attributable to marketing goods and services under the Verodin brand. Contract backlog pertains to unbilled and unrecognized contracts yet to be fulfilled.

The estimated useful life and fair values of the identifiable intangible assets are as follows (dollars in thousands):

	Useful Life (in years)	Amount
Developed technology	5	$ 38,300
Customer relationships	5	4,600
Trade name	5	1,600
Contract backlog	2	700
Total identifiable intangible assets		$ 45,200

The value of developed technology was estimated using the excess earnings method, an income approach (Level 3), which converts projected revenues and costs into cash flows. To reflect the fact that certain other assets contribute to the cash flows generated, the returns for these contributory assets were removed to arrive at estimated cash flows solely attributable to the acquired technology, which were discounted at a rate of 12% to determine the fair value.

The value of customer relationships was estimated using the cost savings method, an income level approach (Level 3), which estimates the value of an asset based upon costs avoided through ownership of the asset. Estimated costs on projected revenues, excluding acquired contract backlog, were made using historical data pertaining to sales to new and existing customers. The cash flow impact of projected cost savings, primarily avoidance of legal costs pertaining to new customers and lower commission rates applicable to existing customers than new customers, were discounted at a rate of 11% to determine the fair value.

The value of the trade name was estimated using the relief-from-royalty method, an income approach (Level 3), which estimates the cost savings that accrue to the owner of the intangibles asset that would otherwise be payable as royalties or license fees on revenues earned through the use of the asset. A royalty rate was applied to the projected revenues associated with the intangible asset to determine the amount of savings, which was at a rate of 12% to determine the fair value.

The value of the contract backlog was estimated by discounting estimated cash flows from existing orders, an income level approach (Level 3). Using expected timing of backlog revenue realization by quarter, the cash flow estimates resulting therefrom were reduced by estimated fulfillment costs associated with completing the backlog obligations, and the net cash flows were then discounted at a rate of 8% to determine fair value.

Discount rates for each respective intangible asset were determined by accounting for the risk associated with each asset, including required technology development and customer acquisition required to support respective projections, the uncertainty of market success and the risk inherent with projected financial results. The estimated useful lives were determined by evaluating the expected economic and useful lives of the assets and of similar intangible assets from previous business combinations and adjusting accordingly after taking into account circumstances that may be unique to Verodin. Net tangible assets and intangibles assets assumed as well as goodwill recognized are presented as continuing operations in the consolidated balance sheets.

Acquisition of Cloudvisory LLC

On January 17, 2020, we acquired Cloudvisory, a provider of cloud visibility and control solutions. As consideration for the acquisition, we paid $13.2 million in cash. In addition, we assumed $0.3 million in net tangible liabilities.

The acquisition of Cloudvisory was accounted for in accordance with the acquisition method of accounting for business combinations with Mandiant as the accounting acquirer. Under the acquisition method of accounting, the total purchase consideration is allocated to the tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values. The total purchase price of $13.2 million was allocated using the information available to us. The results of operations of Cloudvisory have been included in our consolidated statements of operations from the acquisition date, though revenue and net income from Cloudvisory were not material for the year ended December 31, 2020. Transaction costs were immaterial and expensed as incurred. Pro forma financial information has not been presented for this acquisition as the impact to our consolidated financial statements was not material. Allocation of the purchase price is as follows (in thousands):

	Amount
Net tangible liabilities assumed	$ (288)
Intangible assets	5,650
Goodwill	7,846
Total purchase price allocation	$ 13,208

The purchase price exceeded the fair value of the net tangible liabilities and identifiable intangible assets acquired, resulting in the recognition of goodwill. Goodwill is primarily attributable to expected synergies in our subscription offerings and cross-selling opportunities. The goodwill generated as a result of the Cloudvisory acquisition is deductible for tax purposes.

Intangible assets consist primarily of developed technology and trade name. Intangible assets attributable to developed technology include a combination of patented and unpatented technology, trade secrets, computer software and research processes that represent the foundation for the existing and planned new products to facilitate the generation of new content. Trade name is attributable to marketing goods and services under the Cloudvisory brand.

The estimated useful life and fair values of the identifiable intangible assets are as follows (dollars in thousands):

	Estimated Useful Life (in years)	Amount
Developed technology	3	$ 5,500
Trade name	1	150
Total identifiable intangible assets		$ 5,650

The value of developed technology was estimated using the excess earnings method, an income approach (Level 3), which converts projected revenues and costs into cash flows. To reflect the fact that certain other assets contribute to the cash flows generated, the returns for these contributory assets were removed to arrive at estimated cash flows solely attributable to the acquired technology, which were discounted at a rate of 35% to determine the fair value.

The value of the trade name was estimated using the relief-from-royalty method, an income approach (Level 3), which estimates the cost savings that accrue to the owner of the intangibles asset that would otherwise be payable as royalties or license fees on revenues earned through the use of the asset. A royalty rate of 1% was applied to the projected revenues associated with the intangible asset to determine the amount of savings using a discount rate of 35% to determine the fair value.

Discount rates for each respective intangible asset were determined by accounting for the risk associated with each asset, including required technology development necessary to support respective projections, the uncertainty of market success and the risk inherent with projected financial results. The estimated useful lives were determined by evaluating the expected economic and useful lives of the assets and of similar intangible assets from previous business combinations and adjusting accordingly for circumstances that may be unique to Cloudvisory.

The intangible assets acquired and net tangible liability assumed in this acquisition are reported as held for sale in the consolidated balance sheets. A portion of the goodwill generated by the Cloudvisory acquisition amounting to $1.8 million was allocated to the FireEye Products business based on relative fair value and is reported as held for sale.

Acquisition of Respond Software

In November 2020, we acquired all outstanding shares of privately held Respond Software, a cybersecurity investigation automation company. The acquisition of Respond Software, a leader in automation of XDR, is intended to add significant capabilities to our Mandiant Advantage platform by automating threat detection and reducing the amount of analyst time necessary to investigate treats due to the reduction in false positives as well as to accelerate Respond Software's learning models with our unique expertise and Intel. In connection with this acquisition, we paid cash consideration of $116.1 million and issued 4,931,862 shares of our common stock of which 694,768 shares are subject to vesting conditions. The estimated fair value of the common stock issued and not subject to vesting conditions was $60.3 million. We also assumed unvested stock options, which are now exercisable for our common stock, of which $1.2 million of the fair value has been accounted for as consideration for assumed awards pertaining to pre-combination service prior to acquisition. Based on the above, total purchase consideration for Respond Software was $177.6 million.

The acquisition of Respond Software was accounted for in accordance with the acquisition method of accounting for business combinations with Mandiant as the accounting acquirer. Under the acquisition method of accounting, the total purchase consideration is allocated to the tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values. The total purchase price of $177.6 million was allocated using the information available to us. The results of operations of Respond Software have been included in our consolidated statements of operations from the acquisition date, and revenue and net income from Respond Software were not material for the year ended December 31, 2021. Transaction costs were immaterial and expensed as incurred. Pro forma financial information has not been presented for this acquisition as the impact to our consolidated financial statements was not material. Allocation of the purchase price is as follows (in thousands):

	Amount
Net tangible liabilities assumed	$ (4,551)
Intangible assets	31,880
Deferred tax liability	(900)
Goodwill	151,168
Total purchase price allocation	$ 177,597

The purchase price exceeded the fair value of the net tangible liabilities and identifiable intangible assets acquired, resulting in the recognition of goodwill. Goodwill is primarily attributable to expected synergies in our subscription offerings and cross-selling opportunities. The goodwill is not expected to be deductible for U.S. income tax purposes.

Intangible assets consist primarily of developed technology, in-process technology, customer relationships and trade name. Intangible assets attributable to developed technology include a combination of patented and unpatented technology, trade secrets, computer software and research processes that represent the foundation for the existing and planned new products to facilitate the generation of new content. Customer relationship intangibles relate to Respond Software's ability to sell current and future content, as well as products built around this content, to its existing customers. Trade name is attributable to marketing goods and services under the Respond Software brand.

The estimated useful life and fair values of the identifiable intangible assets are as follows (dollars in thousands):

	Estimated Useful Life (in years)	Amount
Developed technology	5	$ 22,300
In-Process technology	4	2,200
Customer relationships	5	6,760
Trade name	2	620
Total identifiable intangible assets		$ 31,880

The value of developed technology was estimated using the excess earnings method, an income approach (Level 3), which converts projected revenues and costs into cash flows. To reflect the fact that certain other assets contribute to the cash flows generated, the returns for these contributory assets were removed to arrive at estimated cash flows solely attributable to the acquired technology, which were discounted at a rate of 12% to determine the fair value.

The value of in-process technology was estimated using the excess earnings method, an income approach (Level 3), which converts projected revenues and costs into cash flows. To reflect the fact that certain other assets contribute to the cash flows generated, the returns for these contributory assets were removed to arrive at estimated cash flows solely attributable to the acquired technology, which were discounted at a rate of 13% to determine the fair value.

The value of customer relationships was estimated using the "with and without" version of the Income Approach, which measures the difference between cash flows generated assuming the existence of the current customer relationships and the cash flows assuming those relationships do not exist and are replaced over time. Estimated costs on projected revenues, excluding acquired contract backlog, were made using historical data pertaining to sales to new and existing customers. The cash flow impact of projected cost savings, primarily avoidance of legal costs pertaining to new customers and lower commission rates applicable to existing customers than new customers, were discounted at a rate of 11% to determine the fair value.

The value of the trade name was estimated using the relief-from-royalty method, an income approach (Level 3), which estimates the cost savings that accrue to the owner of the intangibles asset that would otherwise be payable as royalties or license fees on revenues earned through the use of the asset. A royalty rate of 1% was applied to the projected revenues associated with the intangible asset to determine the amount of savings using a discount rate of 12% to determine the fair value.

Discount rates for each respective intangible asset were determined by accounting for the risk associated with each asset, including required technology development necessary to support respective projections, the uncertainty of market success and the risk inherent with projected financial results. The estimated useful lives were determined by evaluating the expected economic and useful lives of the assets and of similar intangible assets from previous business combinations and adjusting accordingly for circumstances that may be unique to Respond Software.

A portion of the goodwill generated by the Respond Software acquisition was allocated to the FireEye Products business based on relative fair value and was reported as held for sale. The amount of Respond Software goodwill reported as held for sale is $34.8 million. The intangible assets acquired and the net tangible liabilities assumed were retained in the sale of the FireEye Products business and are presented as continuing operations in the consolidated balance sheets.

Acquisition of Intrigue Software

On August 4, 2021, we acquired Intrigue, a privately-held company, for cash consideration of approximately $12.3 million. Intrigue's attack surface management technology will be integrated into the Mandiant Advantage platform, enabling organizations to discover, monitor and manage risk across their entire attack surface.

The acquisition of Intrigue was accounted for in accordance with the acquisition method of accounting for business combinations with Mandiant as the accounting acquirer. Under the acquisition method of accounting, the total purchase consideration is allocated to the tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values. The total purchase price of $12.3 million was allocated using the information available to us. The results of operations of Intrigue have been included in our consolidated statements of operations from the acquisition date. Transaction costs were immaterial and expensed as incurred. Proforma financial information has not been presented for this acquisition as the impact to our consolidated financial statements was not material. Preliminary allocation of the purchase price is as follows (in thousands):

	Amount
Net tangible liabilities assumed	$ 143
Intangible assets	3,400
Deferred tax liability	(513)
Goodwill	9,230
Total preliminary purchase price allocation	$ 12,260

The purchase price exceeded the fair value of the net tangible liabilities assumed and identifiable intangible assets acquired, resulting in the recognition of goodwill. Goodwill is primarily attributable to expected synergies in our subscription offerings and cross-selling opportunities. The goodwill generated as a result of the Intrigue acquisition is not deductible for tax purposes.

Intangible assets consist primarily of developed technology. Intangible assets attributable to developed technology include a combination of patented and unpatented technology, trade secrets, computer software and research processes that represent the foundation for the existing and planned new products to facilitate the generation of new content.

The estimated useful life and fair values of the identifiable intangible assets are as follows (in thousands):

	Preliminary Estimated Useful Life (in years)	Amount
Developed technology	3	$ 3,400
Total identifiable intangible assets		$ 3,400

The value of developed technology was estimated using the excess earnings method, an income approach (Level 3), which converts projected revenues and costs into cash flows. To reflect the fact that certain other assets contribute to the cash flows generated, the returns for these contributory assets were removed to arrive at estimated cash flows solely attributable to the acquired technology, which were discounted at a rate of 40% to determine the fair value.

The discount rate was determined by accounting for the risk associated with the asset, including required technology development necessary to support respective projections, the uncertainty of market success and the risk inherent with projected financial results. The estimated useful life was determined by evaluating the expected economic and useful lives of the asset and of similar intangible assets from previous business combinations and adjusting accordingly for circumstances that may be unique to Intrigue.

Net tangible liabilities assumed and intangibles assets acquired as well as goodwill recognized are presented as continuing operations in the consolidated balance sheets.

Goodwill and Purchased Intangible Assets

Goodwill and purchased intangible assets held for sale pursuant to our agreement to sell the FireEye Products business to Trellix were included in assets held for sale in our consolidated balance sheets as of December 31, 2020, and accordingly, are excluded from the amounts shown in the tables below.

Changes in the carrying amount of goodwill for the years ended December 31, 2021 and 2020 were as follows (in thousands):

	Amount
Balance as of December 31, 2019	$ 928,075
Goodwill acquired	122,887
Balance as of December 31, 2020	$ 1,050,962
Goodwill acquired	9,061
Balance as of December 31, 2021	$ 1,060,023

Purchased intangible assets consisted of the following (in thousands):

	As of December 31,	
	2021	2020
Developed technology	$ 150,893	$ 147,493
Content	158,700	158,700
Customer relationships	112,360	112,360
Contract backlog	13,200	13,200
Trade names	17,720	17,720
Non-competition agreements	1,100	1,100
Total intangible assets	$ 453,973	450,573
Less: accumulated amortization	(374,462)	(330,018)
Total net intangible assets	$ 79,511	$ 120,555

Amortization expense of intangible assets during the years ended December 31, 2021, 2020 and 2019 was $44.4 million, $41.3 million and $48.5 million, respectively.

The expected future annual amortization expense of intangible assets as of December 31, 2021 is presented below (in thousands):

Years Ending December 31,	Amount
2022	$ 34,439
2023	29,421
2024	10,566
2025	5,085
2026	—
2027 and thereafter	—
Total	$ 79,511

7. Restructuring Charges

In January 2019, we implemented a restructuring plan designed primarily to align our resources with the strategic growth initiatives of the business. This restructuring plan resulted in a reduction of less than 2% of our total workforce as of March 31, 2019, as well as exiting and downsizing of certain real estate facilities. In August 2019, we implemented an additional restructuring plan to further align our resources with the strategic growth initiatives of the business, which related primarily to employee severance charges and other termination benefits as well as costs associated with exiting certain real estate facilities.

In January 2020, we implemented a restructuring plan designed primarily to align our resources and investments with the strategic growth initiatives of the business. This restructuring plan resulted in a reduction of less than 2% of our total workforce as of March 31, 2020 as well as the impairment of certain long lived assets.

In April 2020, we implemented another restructuring plan to streamline the Company's operations to align expenses more closely to the Company's projected revenue, position the Company for improved operating performance and allow the Company to increase investment in strategic growth areas of the business. This restructuring plan resulted in the reduction of 6% of the Company's workforce.

In August and December 2020, we implemented additional restructuring plans, predominantly related to facilities and obsolete assets in order to position the Company for improved operating performance. These August and December 2020 restructuring plans resulted in the reduction of approximately 1% of the Company's workforce.

The majority of restructuring charges for the year ended December 31, 2021 are related to the decommissioning of our Milpitas, California office space and relocation of our corporate headquarters to Reston, Virginia. The total restructuring charges during the year ended December 31, 2021 of $34.6 million includes $6.6 million of cash charges which primarily consists of $6.9 million in provision for restructuring charges offset by $0.3 million in other adjustments. In addition, there are non-cash charges of $27.7 million related to fixed asset and right-of-use asset write-offs and stock-based compensation.

The following table sets forth the restructuring balance as of December 31, 2019 related to previous restructuring activities and a summary of restructuring activities during the years ended December 31, 2021 and 2020 (in thousands):

	Severance and related costs	Facilities costs	Total costs
Balance at December 31, 2019	$ 164	$ 470	$ 634
Provision for restructuring charges	15,148	276	15,424
Cash payments	(17,678)	(196)	(17,874)
Other adjustments	2,936	(72)	2,864
Balance at December 31, 2020	$ 570	$ 478	$ 1,048
Provision for restructuring charges	2,543	4,328	6,871
Cash payments	(2,333)	(569)	(2,902)
Other adjustments	(301)	(9)	(310)
Balance at December 31, 2021	$ 479	$ 4,228	$ 4,707

Other adjustments of negative $0.3 million and positive $2.9 million for the year ended December 31, 2021 and 2020 respectively, primarily represented relief of unused benefits, changes in fair value and foreign currency fluctuations.

The remaining restructuring balance of $4.7 million at December 31, 2021 is primarily composed of $4.2 million non-cancelable lease costs, which we expect to pay over the terms of the related obligations through the first quarter of 2023, net of sublease income and $0.5 million of severance costs.

8. Deferred Commissions

We capitalize most of our commission expenses and related payroll taxes and amortize them on a systematic basis that is consistent with the transfer to the customer of the subscriptions or services to which the asset relates. Changes in the balance of total deferred commissions presented in accrued and other current liabilities and other long-term liabilities on the consolidated balance sheets for the periods presented are as follows (in thousands):

	Deferred Commissions
Balance at December 31, 2019	$ 24,666
Commissions capitalized	20,886
Commissions recognized	(19,892)
Balance at December 31, 2020	25,660
Commissions capitalized	48,231
Commissions recognized	(28,546)
Balance at December 31, 2021	$ 45,345

9. Leases

We have operating leases primarily for corporate offices. Our leases have remaining lease terms of one to eleven years, some of which include options to extend the leases for up to five years, and some of which include options to terminate the leases within one year. We do not include renewal options in our lease terms for calculating our lease liability, as the renewal options allow us to maintain operational flexibility and we are not reasonably certain we will exercise these renewal options at the time of the lease commencement.

Operating leases to our discontinued operations were included in assets held for sale in our consolidated balance sheets as of December 31, 2020, and accordingly, are excluded from the tables below.

The components of lease expenses were as follows (in thousands):

	Year Ended December 31,	
	2021	2020
Operating lease costs	$ 13,198	$ 14,831
Short-term lease costs	1,590	1,861
Sublease income	(889)	(942)
Total net lease costs	$ 13,899	$ 15,750

Supplemental balance sheet information related to leases is as follows (in thousands, except lease term and discount rate):

	As of December 31,	
	2021	2020
Operating leases:		
Operating lease right-of-use assets, net	$ 25,768	$ 36,728
Operating lease liabilities, current	$ 13,306	$ 14,556
Operating lease liabilities, non-current	52,132	41,802
Total operating lease liabilities	$ 65,438	$ 56,358
Weighted average remaining lease term (in years)	6.8	5.6
Weighted average discount rate	6.0 %	6.7 %

The ROU assets and the short-term and long-term lease liabilities from our operating leases are included in other assets, accrued liabilities and other liabilities in our consolidated balance sheets, respectively.

Supplemental cash flow and other information related to leases is as follows (in thousands):

	Year Ended December 31,	
	2021	2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 16,731	$ 17,969
Lease liabilities arising from obtaining right-of-use assets:		
Operating leases	$ 11,683	$ 478

Cash flows of operating lease liabilities are as follows (in thousands):

Years Ending December 31,	**Amount**
2022	$ 13,839
2023	12,904
2024	11,411
2025	10,627
2026	10,596
2027 and thereafter	20,254
Total lease payments	$ 79,631
Less: Imputed interest	$ (14,193)
Total lease obligation	$ 65,438
Less: Current lease obligations	(13,306)
Long-term lease obligations	$ 52,132

As of December 31, 2021, we have an additional operating lease commitment that has not yet commenced of $3.1 million for an office lease. The operating lease will commence in the first quarter of 2022 with lease term of 4.3 years.

10. Deferred Revenue

Deferred revenue held for sale related to our discontinued operations was included in liabilities held for sale in our condensed consolidated balance sheets as of December 31, 2020, and accordingly, is excluded from the amounts shown in the tables below.

Deferred revenue as of December 31, 2021 and 2020 consisted of the following (in thousands):

	As of December 31, 2021	As of December 31, 2020
Platform, cloud subscription and managed services, current	$ 170,733	$ 126,086
Professional services, current	136,878	100,270
Total deferred revenue, current	$ 307,611	$ 226,356
Platform, cloud subscription and managed services, non-current	100,285	56,691
Professional services, non-current	2,432	1,206
Total deferred revenue, non-current	$ 102,717	$ 57,897
Total deferred revenue	$ 410,328	$ 284,253

Changes in the balance of deferred revenue for the periods presented are as follows (in thousands):

	Deferred Revenue
Balance at December 31, 2019	$ 273,241
Billings for the period	408,057
Revenue recognized	(399,709)
Assumed in connection with acquisitions	2,664
Balance at December 31, 2020	$ 284,253
Billings for the period	609,530
Revenue recognized	(483,455)
Balance at December 31, 2021	$ 410,328

Remaining Performance Obligations

Transaction price allocated to remaining performance obligations represents contracted revenue that has not yet been recognized, which includes deferred revenue and non-cancelable contracts that will be invoiced and recognized as revenue in future periods ("backlog"). While deferred revenue is recorded on our balance sheet as a liability, backlog is not recorded in revenue, deferred revenue or elsewhere in our consolidated financial statements until we establish a contractual right to invoice, at which point it is recorded as revenue or deferred revenue as appropriate. As of December 31, 2021, the aggregate amount of the transaction price allocated to remaining performance obligations was $410.3 million in deferred revenue and $14.7 million in backlog. As of December 31, 2020, the aggregate amount of the transaction price allocated to remaining performance obligations was $284.3 million in deferred revenue and $25.6 million in backlog.

We expect that the amount of backlog relative to the total value of our contracts will change from year to year due to several factors, including the amount invoiced early in the contract term, the timing and duration of customer agreements, varying invoicing cycles of agreements and changes in customer financial circumstances. Accordingly, we believe that fluctuations in backlog are not always a reliable indicator of future revenues and we do not utilize backlog internally as a key management metric.

We expect to recognize these remaining performance obligations as follows (in percentages):

	Total	Less than 1 year	1-2 years	2-3 years	More than 3 years
Deferred revenue	100%	75%	16%	8%	1%
Backlog	100%	65%	22%	12%	1%

11. Convertible Senior Notes

Convertible Senior Notes due 2024

On May 24, 2018, we issued $525.0 million aggregate principal amount of 0.875% Convertible Senior Notes due 2024 (the "2024 Notes") in a private placement to qualified institutional purchasers pursuant to an exemption from registration provided by Section 4(a)(2) and Rule 144A under the Securities Act of 1933, as amended (the "Securities Act"). In addition, on June 5, 2018, we issued an additional $75.0 million aggregate principal amount of the 2024 Notes pursuant to the full exercise of the initial purchasers' option to purchase additional 2024 Notes, in a private placement exempt from the registration requirements of the Securities Act. The net proceeds from the offerings, after deducting the initial purchasers' discount of approximately $15.0 million and the issuance costs of approximately $0.6 million, were $584.4 million. We used (i) approximately $330.4 million of the net proceeds to repurchase

approximately $340.2 million in aggregate principal amount outstanding of the Series A Notes (as defined below) in negotiated transactions with institutional investors and (ii) approximately $65.2 million of the net proceeds from the offering of the 2024 Notes to enter into capped call transactions (the "Capped Calls").

The 2024 Notes are unsecured obligations and rank senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the 2024 Notes. They rank equally in right of payment with all of our existing and future liabilities that are not expressly subordinated to the 2024 Notes including the Series A Notes and the Series B Notes (as defined below); and effectively rank junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness. The 2024 Notes are structurally junior to all indebtedness and other liabilities (including trade payables) of our subsidiaries.

The 2024 Notes do not contain any financial covenants and do not restrict us from paying dividends or issuing or repurchasing other securities.

The 2024 Notes bear interest at 0.875% per year, payable semiannually in arrears on June 1 and December 1 of each year. The 2024 Notes mature on June 1, 2024, unless earlier repurchased, redeemed or converted.

The initial conversion rate of the 2024 Notes is 43.1667 shares of our common stock per $1,000 of principal amount of the 2024 Notes, which is equivalent to an initial conversion price of approximately $23.17 per share of common stock. The conversion rate of the 2024 Notes may be adjusted pursuant to the terms of the indenture governing the 2024 Notes upon the occurrence of certain specified events, but not for accrued and unpaid interest.

Holders may convert the 2024 Notes at their option in multiples of $1,000 principal amount prior to the business day preceding March 1, 2024, only under the following circumstances:

- during any calendar quarter (and only during such calendar quarter), if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price of the 2024 Notes on each applicable trading day;
- during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price per $1,000 principal amount of the 2024 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the notes on each such trading day;
- if we call any or all of the 2024 Notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the relevant redemption date; or
- upon the occurrence of specified corporate events, as specified in each indenture governing the 2024 Notes.

Regardless of the foregoing conditions, holders may convert their 2024 Notes at their option in multiples of $1,000 principal amount during the period from, and including, March 1, 2024 to the close of business on the second scheduled trading day immediately preceding the maturity date. Upon conversion, the 2024 Notes can be settled in cash, shares of our common stock or any combination of cash and shares of common stock at our option.

Holders may also require us to repurchase the 2024 Notes if we undergo a "fundamental change," as defined in each indenture governing the 2024 Notes, at a repurchase price equal to 100% of the principal amount, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

Additionally, we may redeem for cash all or any portion of the 2024 Notes on or after June 5, 2021, if the last reported sale price of our common stock has been at least 130% of the conversion price of the 2024 Notes then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) immediately preceding the date on which we provide notice of redemption at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus any accrued and unpaid interest to, but excluding, the redemption date.

As of December 31, 2021, none of the conditions permitting holders to convert their 2024 Notes had been satisfied and no shares of our common stock had been issued in connection with any conversions of the 2024 Notes. Based on the closing price of our common stock of $17.54 per share on December 31, 2021, the conversion value of the 2024 Notes was less than the principal amount of the 2024 Notes outstanding on a per 2024 Note basis.

In accordance with accounting for debt with conversions and other options, we bifurcated the principal amount of the 2024 Notes into liability and equity components. The initial liability component of the 2024 Notes was valued at $458.3 million based on the contractual cash flows discounted at an appropriate comparable market non-convertible debt borrowing rate at the date of issuance of 5.5% with the equity component representing the residual amount of the proceeds of $141.7 million, which was recorded as a debt discount. Issuance costs were allocated pro rata based on the relative initial carrying amounts of the liability and equity components. As a result, transaction costs of $0.5 million and $0.1 million and initial purchasers' discount of $11.5 million and $3.5 million were attributable to the liability component and equity component of the 2024 Notes, respectively. The debt discount and the issuance costs

allocated to the liability component are amortized as additional interest expense over the term of the 2024 Notes using the effective interest method as noted in the table below.

The liability and equity components of the 2024 Notes consisted of the following (in thousands):

	As of December 31,	
	2021	2020
Liability component:		
Principal	$ 600,000	$ 600,000
Less: 2024 Notes debt discounts and issuance costs, net of amortization	(67,196)	(92,750)
Net carrying amount	$ 532,804	$ 507,250
Equity component, net of issuance costs	$ 138,064	$ 138,064

The unamortized issuance costs as of December 31, 2021 will be amortized over a weighted-average remaining period of approximately 2.4 years.

Interest expense for the years ended December 31, 2021 and 2020 related to the 2024 Notes consisted of the following (dollars in thousands):

	Year Ended December 31,	
	2021	2020
Coupon interest	$ 5,250	$ 5,250
Amortization of 2024 Notes debt discounts and issuance costs	25,554	24,328
Total interest expense recognized	$ 30,804	$ 29,578
Effective interest rate on the liability component	6.1 %	6.1 %

In connection with the 2024 Notes offering, the Company entered into the Capped Calls with certain counterparties affiliated with the initial purchasers of the 2024 Notes. The Capped Calls are expected to reduce potential dilution of earnings per share upon conversion of the 2024 Notes, and have an initial strike price of $23.17 per share, which corresponds to the initial conversion price of the 2024 Notes and which have a cap price of $34.32 per share. The Capped Calls do not meet the criteria for separate accounting as a derivative as they are indexed to our own stock and are accounted for as freestanding financial instruments. The premiums paid for the purchase of the Capped Calls in the amount of $65.2 million have been recorded as a reduction of the Company's additional paid-in capital in stockholder's equity in the accompanying Consolidated Financial Statements and fair values of the Capped Calls are not re-measured at each reporting period.

Convertible Senior Notes due 2035

In June 2015, we issued $460.0 million principal amount of 1.000% Convertible Senior Notes due 2035 (the "Series A Notes") and $460.0 million principal amount of 1.625% Convertible Senior Notes due 2035 (the “Series B Notes” and together with the Series A Notes, the "2035 Notes", and the 2035 Notes, together with the 2024 Notes, the "Convertible Senior Notes") in a private placement to qualified institutional purchasers pursuant to an exemption from registration provided by Section 4(a)(2) and Rule 144A under the Securities Act. The net proceeds after the initial purchasers' discount of $23.0 million and issuance costs of $0.5 million from the 2035 Notes were $896.5 million. The Series A Notes and Series B Notes bear interest at 1.000% per year and 1.625% per year, respectively, payable semiannually in arrears on June 1 and December 1 of each year. The 2035 Notes mature on June 1, 2035, unless earlier repurchased, redeemed or converted.

The 2035 Notes are unsecured obligations and rank senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the 2035 Notes. They rank equally in right of payment with all of our existing and future liabilities that are not expressly subordinated to the 2035 Notes and effectively rank junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness. They are structurally junior to all indebtedness and other liabilities (including trade payables) of our subsidiaries.

The 2035 Notes do not contain any financial covenants and do not restrict us from paying dividends or issuing or repurchasing our other securities.

The initial conversion rate on each series of 2035 Notes is 16.4572 shares of our common stock per $1,000 principal amount of 2035 Notes, which is equivalent to an initial conversion price of approximately $60.76 per share of common stock. The conversion rate of each series of 2035 Notes may be adjusted upon the occurrence of certain specified events, but not for accrued and unpaid interest.

Holders may convert the 2035 Notes at their option in multiples of $1,000 principal amount prior to March 1, 2035, only under the following circumstances:

- during any calendar quarter (and only during such calendar quarter), if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price for the 2035 Notes of the relevant series on each applicable trading day;
- during the five business day period after any five consecutive trading day period in which the trading price per $1,000 principal amount of Series A Notes or Series B Notes, as applicable, for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the notes of the relevant series on each such trading day;
- if we call any or all of the 2035 Notes of a series for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the relevant redemption date; or
- upon the occurrence of specified corporate events, as specified in each indenture governing the 2035 Notes.

Regardless of the foregoing conditions, holders may convert their 2035 Notes at their option in multiples of $1,000 principal amount at any time after March 1, 2035 until maturity for either series of 2035 Notes. Upon conversion, the 2035 Notes can be settled in cash, shares of our common stock or any combination thereof at our option.

We may be required by holders of the 2035 Notes to repurchase all or any portion of their 2035 Notes at 100% of the principal amount plus accrued and unpaid interest, on each of June 1, 2025 and June 1, 2030, in the case of the Series A Notes, and each of June 1, 2022, June 1, 2025 and June 1, 2030 in the case of the Series B Notes. Holders may also require us to repurchase the 2035 Notes if we undergo a "fundamental change," as defined in each indenture governing the 2035 Notes, at a purchase price equal to 100% of the principal amount, plus accrued and unpaid interest.

Additionally, we may redeem for cash all or any portion of the Series B Notes at any time prior to June 1, 2022 if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending not more than three trading days immediately preceding the date we provide notice of redemption. We also may redeem for cash all or any portion of the Series A Notes at any time prior to maturity and all or any portion of the Series B Notes on or after June 1, 2022 until maturity, regardless of the foregoing sale price condition.

In accordance with accounting for debt with conversions and other options, we allocated the principal amount of the 2035 Notes into liability and equity components. We also allocated the total amount of initial purchasers' discount and transaction costs incurred to the liability and equity components using the same proportions as the proceeds from the 2035 Notes. Transaction costs of $0.4 million and $0.1 million and initial purchasers' discount of $17.6 million and $5.4 million were attributable to the liability component and equity component of the 2035 Notes, respectively.

Repurchases of a portion of the Series A Notes

In May 2018, we used approximately $330.4 million of the net proceeds from the offering of the 2024 Notes to repurchase $340.2 million in aggregate principal amount of the Series A Notes. The repurchase was accounted for as a partial extinguishment of the Series A Notes. The consideration of approximately $330.4 million used to repurchase the Series A Notes was allocated between the liability and equity components of the amount extinguished by determining the fair value of the liability component immediately prior to the debt extinguishment and allocating that portion of the repurchase price to the liability component in the amount of $317.4 million. The residual of the repurchase price of $13.0 million was allocated to the equity component of the Series A Notes as a reduction of additional paid-in capital. The fair value of the debt extinguished was calculated using a discount rate of 4.5%, representing an estimate of the Company's borrowing rate at the date of repurchase with a remaining expected life of two years. As part of the repurchase, we wrote-off a portion of the unamortized debt issuance cost apportioned to the principal amount of Series A Notes repurchased. We also recorded a loss on partial extinguishment of the Series A Notes of $10.8 million in Other Expense, net, representing the difference between the consideration attributed to the liability component and the sum of the net carrying amount of the liability component and unamortized costs.

In June 2020, the Company delivered a notice to the holders of Series A Notes to notify such holders of their option to require the Company to repurchase their Series A Notes on June 1, 2020. Holders representing $96.4 million aggregate principal amount of Series A Notes chose to exercise their option to require the Company to repurchase their Series A Notes. The repurchase was accounted for as a partial extinguishment of the Series A Notes. The consideration of approximately $96.4 million was used to repurchase the Series A Notes. The fair value of the debt extinguished was deemed to be the same as the par value of $96.4 million and no gain or loss was recognized.

As of December 31, 2021, $23.4 million aggregate principal amount of the Series A Notes remains outstanding.

The liability and equity components of the 2035 Notes consisted of the following (in thousands):

	As of December 31,			
	2021		2020	
	Series A Notes	Series B Notes	Series A Notes	Series B Notes
Liability component:				
Principal	$ 23,436	$ 460,000	$ 23,436	$ 460,000
Less: 2035 Notes discounts and issuance costs, net of amortization	—	(8,970)	—	(29,790)
Net carrying amount	$ 23,436	$ 451,030	$ 23,436	$ 430,210
Equity component, net of issuance costs	$ 15,559	$ 117,834	$ 15,559	$ 117,834

The unamortized discounts and issuance costs as of December 31, 2021 will be amortized over a weighted-average remaining period of approximately 0.4 years.

Interest expense for the years ended December 31, 2021, 2020 and 2019 related to the 2035 Notes consisted of the following (in thousands):

	Year Ended December 31,					
	2021		2020		2019	
	Series A Notes	Series B Notes	Series A Notes	Series B Notes	Series A Notes	Series B Notes
Coupon interest	$ 234	$ 7,475	$ 636	$ 7,475	$ 1,198	$ 7,454
Amortization of 2035 Notes discounts and issuance costs	—	20,820	2,540	19,859	5,879	18,943
Total interest expense recognized	$ 234	$ 28,295	$ 3,176	$ 27,334	$ 7,077	$ 26,397
Effective interest rate on the liability component	1.0 %	6.6 %	2.7 %	6.7 %	6.4 %	6.7 %

Prepaid Forward Stock Purchase

In connection with the issuance of the 2035 Notes, we also entered into privately negotiated prepaid forward transactions (the "Prepaid Forwards") with one of the initial purchasers of the 2035 Notes (the “Forward Counterparty”), pursuant to which we paid approximately $150.0 million. The amount of the Prepaid Forward entered into in connection with the issuance of the Series A Notes was equivalent to approximately 1.6 million shares which was settled on June 3, 2020. The amount of the Prepaid Forward entered

into in connection with the issuance of the Series B Notes was equivalent to approximately 1.8 million shares which is to be settled on or around June 1, 2022, subject to any early settlement, in whole or in part, of such Prepaid Forward. Such Prepaid Forward is intended to facilitate privately negotiated derivative transactions by which investors in the Series B Notes will be able to hedge their investment in the Series B Notes. In the event we pay any cash dividends on our common stock, the Forward Counterparty will pay an equivalent amount back to us.

The related shares were accounted for as a repurchase of common stock, and are presented as Treasury Stock in the consolidated balance sheets. On June 3, 2020, we retired approximately 1.6 million shares delivered under the Prepaid Forward entered into in connection with the issuance of the Series A Notes. The remaining approximately 1.8 million shares of common stock purchased under the Prepaid Forward entered into in connection with the issuance of the Series B Notes are excluded from weighted-average shares outstanding for basic and diluted EPS purposes although they remain legally outstanding.

12. Commitments and Contingencies

Letters of Credit

We are party to letters of credit totaling $3.1 million as of December 31, 2021 issued primarily in support of operating leases for our facilities. These letters of credit are collateralized by a line with our bank. No amounts have been drawn against these letters of credit.

Purchase Obligations

As of December 31, 2021, we had approximately $20.6 million of non-cancelable firm purchase commitments primarily for purchases of software and services. In situations where we have received delivery of the goods or services as of December 31, 2021 under purchase orders outstanding as of the same date, such amounts are reflected in the consolidated balance sheet as accounts payable or accrued liabilities and are excluded from the $20.6 million.

Litigation

From time to time, we are involved in claims and legal proceedings that arise in the ordinary course of business. Any claims or proceedings against us, whether meritorious or not, could be time consuming, result in costly litigation, require significant amounts of management time, result in the diversion of significant operational resources, or require us to enter into agreements which may not be available on terms favorable to us or at all.

On November 3, 2021, an alleged shareholder filed an action against the Company and its board of directors, alleging a violation of Delaware General Corporation Law Sec. 271 and breaches of fiduciary duty in connection with sale of the FireEye Products business. The lawsuit seeks a declaratory judgment, a shareholder vote, and attorneys' fees, as well as other relief. The action was filed in the Court of Chancery of the State of Delaware under the caption Altieri v. Mandiant, Inc., et al., No. 2021-0946. The defendants filed a motion to dismiss on January 14, 2022. Based on information currently available, the Company has determined that the amount of any possible loss or range of possible loss is not reasonably estimable.

To the extent there is a reasonable possibility that a loss exceeding amounts already recognized may be incurred, and the amount of such additional loss would be material, we will either disclose the estimated additional loss or state that such an estimate cannot be made. We do not currently believe that it is reasonably possible that additional losses in connection with litigation arising in the ordinary course of business would be material.

Indemnification

Under the indemnification provisions of our standard sales related contracts, we agree to defend our customers against third-party claims asserting infringement of certain intellectual property rights, which may include patents, copyrights, trademarks, or trade secrets, and to pay judgments entered on such claims. Our exposure under these indemnification provisions is generally limited to the total amount paid by our customer under the agreement. However, certain agreements include indemnification provisions that could potentially expose us to losses in excess of the amount received under the agreement. In addition, we indemnify our officers, directors, and certain key employees for actions taken while they are or were serving in good faith in such capacities. Through December 31, 2021, there have been no claims under any indemnification provisions.

13. Redeemable Preferred Stock

On November 18, 2020, we entered into a Securities Purchase Agreement with BTO Delta Holdings DE L.P., an investment vehicle of funds affiliated with The Blackstone Group Inc., and a Securities Purchase Agreement with ClearSky Security Fund I LLC and ClearSky Power & Technology Fund II LLC (together, the "Series A Securities Financing Agreements"). Pursuant to the Series A Securities Financing Agreements, on December 11, 2020 we issued and sold 400,000 shares of a newly designated 4.5% Series A Convertible Preferred Stock ("Series A Preferred Stock"), par value $0.0001 per share, at a price of $1,000 per share, for an aggregate purchase price of $400.0 million. We intend to use the net proceeds from the issuance and sale to fund acquisitions, buybacks of our common stock, and for working capital purposes.

Each share of Series A Preferred Stock has the powers, designations, preferences, and other rights of the shares of such series as are set forth in the Certificate of Designations of the Series A Preferred Stock filed by the Company with the Secretary of State of the State of Delaware on December 11, 2020 (the "Certificate of Designations").

The Series A Preferred Stock ranks senior to our common stock, with respect to dividend rights and rights upon the voluntary or involuntary liquidation, dissolution, or winding up of our affairs (a "Liquidation"). Upon a Liquidation, each share of Series A Preferred Stock is entitled to receive an amount per share equal to the greater of (i) the purchase price paid by the Purchaser, plus all accrued and unpaid dividends and (ii) the amount that the holder of Series A Preferred Stock (each, a "Holder" and collectively, the "Holders") would have been entitled to receive at such time if the Series A Preferred Stock were converted into our common stock (the "Liquidation Preference"). The initial purchase price of the Series A Preferred Stock is $1,000 per share (the "Original Purchase Price"). The Holders are entitled to dividends on the Original Purchase Price paid by the Purchaser at the rate of 4.5%, cumulatively, per annum that (i) for the first three years after December 11, 2020 will be paid in-kind, and (ii) after the third anniversary of December 11, 2020, will, at our election either be paid in cash, or, if not, will accrue and accumulate, in each case, accruing daily and paid quarterly in arrears. The Holders are also entitled to participate in dividends declared or paid on the common stock on an as-converted basis.

The Holder has the right, at its option, to convert its Series A Preferred Stock, in whole or in part, into fully paid and non-assessable shares of our common stock at a conversion price equal to $17.25 per share subject to certain customary adjustments in the event of certain adjustments to our common stock. The conversion price was equal to $17.25 per share as of December 31, 2021. After the third anniversary of December 11, 2020, subject to certain conditions, we may, at our option, require conversion of all of the outstanding shares of Series A Preferred Stock to our common stock if, for at least 20 trading days during the 30 consecutive trading days immediately preceding the date we notify the Holders of the election to convert, the closing price of our common stock is at least 175% of the conversion price.

After the seventh anniversary of December 11, 2020, each Holder shall have the right to require us to redeem all or any part of the Holder's Series A Preferred Stock for cash at a price equal to the Original Purchase Price paid by the Purchaser plus any accrued and unpaid dividends. Upon a "Fundamental Change" (involving a change of control, bankruptcy, insolvency, liquidation or de-listing of the Company as further described in the Certificate of Designations), each Holder shall have the right to require the Company to redeem all or any part of the Holder's Series A Preferred Stock for an amount equal to the Liquidation Preference at a repurchase price calculated in accordance with the Certificate of Designations plus any accrued and unpaid dividends.

The Holders are generally entitled to vote with the holders of the shares of our common stock on all matters submitted for a vote of holders of shares of our common stock (voting together with the holders of shares of our common stock as one class) on an as-converted basis, subject to certain Nasdaq voting limitations, if applicable. Additionally, the consent of the Holders of a majority of the outstanding shares of Series A Preferred Stock is required for so long as any shares of the Series A Preferred Stock remain outstanding for (i) amendments to our organizational documents that have an adverse effect on the holders of Series A Preferred Stock and (ii) issuances by us of securities that are senior to, or equal in priority with, the Series A Preferred Stock. In addition, for so long as 25% of the Series A Preferred Stock issued in connection with the Financing Agreements remains outstanding, consent of the Holders of a majority of the outstanding shares of Series A Preferred Stock is required for (i) any change to the size of the Board of Directors, (ii) any voluntary dissolution, liquidation, bankruptcy, winding up or deregistration or delisting and (iii) incurrence by us of net debt in excess of $350,000,000.

We have applied the guidance in ASC 480-10-S99-3A, SEC Staff Announcement: Classification and Measurement of Redeemable Securities and have therefore classified the Series A Preferred Stock as mezzanine equity. The Series A Preferred Stock was recorded outside of stockholders' deficit because it is probable that the shares will be redeemed at the option of the Holders and that redemption option is not solely within the Company's control. Upon issuance, we elected to record the Series A Preferred Stock at redemption value. As such, we recognized $0.1 million and $4.7 million of accretion as of December 31, 2021 and 2020, respectively.

We accrued $18.4 million of dividends on the Series A Preferred Stock during the year ended December 31, 2021. The cumulative dividend accrual on Series A Preferred Stock as of December 31, 2021 was $19.4 million. Accrued dividends are recorded against additional paid-in capital due to the Company being in an accumulated deficit position.

14. Common Shares Reserved for Issuance

Under our amended and restated certificate of incorporation, we are authorized to issue 100,000,000 shares of convertible preferred stock with a par value of $0.0001 per share, of which 400,000 shares of Series A Preferred Stock were outstanding as of December 31, 2021 and 2020.

Under our amended and restated certificate of incorporation, we are authorized to issue 1,000,000,000 shares of common stock with a par value of $0.0001 per share as of December 31, 2021 and 2020. Each share of common stock outstanding is entitled to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when declared by our Board of Directors, subject to the prior rights of holders of all classes of convertible preferred stock outstanding.

We had reserved shares of common stock for issuance as follows (in thousands):

	As of December 31,	
	2021	2020
Reserved under stock award plans	39,476	38,745
Convertible senior notes	33,856	33,856
Convertible preferred stock	24,313	23,249
ESPP	4,156	3,425
Total	101,801	99,275

15. Equity Award Plans

We have operated under our 2013 Equity Incentive Plan ("2013 Plan") since our initial public offering ("IPO") in September 2013. Our 2013 Plan provides for the issuance of restricted stock and the granting of options, stock appreciation rights, performance shares, performance units and restricted stock units to our employees, officers, directors and consultants. Our 2013 Plan provides for annual increases in the number of shares available for issuance on the first day of each fiscal year. Awards granted under the 2013 Plan vest over the periods determined by our Board of Directors or compensation committee of our Board of Directors, generally four years, and stock options granted under the 2013 Plan expire no more than ten years after the date of grant. In the case of an incentive stock option granted to an employee who at the time of grant owns stock representing more than 10% of the total combined voting power of all classes of stock, the exercise price shall be no less than 110% of the fair value per share on the date of grant, and the award shall expire five years from the date of grant. For options granted to any other employee, the per share exercise price shall be no less than 100% of the fair value per share on the date of grant. In the case of non-statutory stock options and options granted to consultants, the per share exercise price shall be no less than 100% of the fair value per share on the date of grant. Approximately 18.4 million shares and 14.9 million shares of our common stock were reserved for future grants as of December 31, 2021 and 2020, respectively, under the 2013 Plan.

Our 2013 Employee Stock Purchase Plan ("ESPP") allows eligible employees to acquire shares of our common stock at 85% of the lower of the fair market value of our common stock on the first trading day of each offering period or on the exercise date. Our ESPP provides for annual increases in the number of shares available for issuance on the first day of each fiscal year. An aggregate of approximately 4.2 million shares and 3.4 million shares of common stock were available for future issuance as of December 31, 2021 and 2020, respectively, under our ESPP.

From time to time, we also grant restricted common stock or restricted stock awards outside of our equity incentive plans to certain employees in connection with acquisitions. Upon the transfer of employees pursuant to the sale of the FireEye Products business, all of their then unvested equity awards were forfeited.

Stock Option Activity

A summary of the activity, for continuing and discontinued operations, for our stock option changes during the reporting periods and a summary of information related to options outstanding and options exercisable are presented below (in thousands, except per share amounts and contractual life years):

	Options Outstanding			
	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Contractual Life (years)	Aggregate Intrinsic Value
Balance — December 31, 2018	3,309	$ 12.49		
Granted	—	—		
Exercised	(731)	5.73		$ 7,537
Cancelled	(140)	22.65		
Assumed in connection with acquisition	1,953	3.00		
Balance — December 31, 2019	4,391	9.07		
Granted	—	—		
Exercised	(1,414)	5.19		12,849
Cancelled	(334)	13.85		
Assumed in connection with acquisition	842	1.39		
Balance — December 31, 2020	3,485	8.33		
Granted	—	—		
Exercised	(1,276)	5.18		18,204
Cancelled	(191)	26.49		
Balance — December 31, 2021	2,018	8.61	5.0	25,664
Options exercisable — December 31, 2021	1,444	$ 11.22	3.9	$ 16,769

The aggregate intrinsic value above represents the pre-tax difference between the exercise price of stock options and the quoted market price of our stock on that day for all in-the-money stock options.

Restricted Stock Award (RSA) and Restricted Stock Unit (RSU) Activity

A summary of the activity, for continuing and discontinued operations, for our restricted common stock, RSAs and RSUs during the reporting periods and a summary of information related to unvested restricted common stock, RSAs and RSUs, including those

expected to vest based on the achievement of a performance condition are presented below (in thousands, except per share amounts and contractual life years):

	Number of Shares	Weighted-Average Grant Date Fair Value (per share)	Weighted-Average Contractual Life (years)	Aggregate Intrinsic Value
Unvested balance — December 31, 2018	20,281	$ 15.53		
Granted	13,302	16.82		
Vested	(8,894)	16.03		
Cancelled	(2,992)	16.10		
Unvested balance — December 31, 2019	21,697	16.07		
Granted	15,838	15.03		
Vested	(10,077)	15.23		
Cancelled	(7,058)	16.41		
Unvested balance — December 31, 2020	20,400	15.35		
Granted	17,855	20.61		
Vested	(10,192)	16.22		
Cancelled	(9,040)	17.81		
Unvested balance — December 31, 2021	19,023	18.48	1.4	$ 333,674
Unvested awards for which the requisite service period has not been rendered and vesting is subject to the achievement of a performance condition — December 31, 2021	2,837	$ 18.54	1.4	$ 49,763

During the years ended December 31, 2021, 2020 and 2019, we issued 2.0 million, 1.2 million and 1.4 million shares, respectively, of restricted common stock, restricted stock awards or restricted stock units to certain employees which vest upon the achievement of certain performance conditions in addition to a continued service relationship with the Company.

Stock-Based Compensation

We record stock-based compensation based on the fair value as determined on the date granted. We determine the fair value of stock options and shares of common stock to be issued under the ESPP using the Black-Scholes option-pricing model. The fair value of restricted stock units and restricted stock awards equals the market value of the underlying stock on the date of grant. We grant performance-based restricted stock units and restricted stock awards to certain employees which vest upon the achievement of certain performance conditions, subject to the employees' continued service relationship with us. With respect to performance-based restricted stock units, we assess the probability of vesting at each reporting period and adjust our compensation cost based on this probability assessment. We recognize such compensation expense on a straight-line basis over the service provider's requisite service period. We determined valuation assumptions as follows:

Fair Value of Common Stock

We use the listed stock price on the date of grant as the fair value of our common stock.

Risk-Free Interest Rate

We base the risk-free interest rate used in the Black-Scholes option-pricing model on the implied yield available on U.S. Treasury zero-coupon issues with an equivalent expected term of the options for each option group.

Expected Term

The expected term represents the period that our stock-based awards are expected to be outstanding. We base the expected term assumption on our historical experience combined with estimates of post-vesting holding periods.

Volatility

We determine the price volatility factor based on the historical volatilities of our peer group as we do not have sufficient trading history for our common stock.

Dividend Yield

The expected dividend assumption is based on our current expectations about our anticipated dividend policy.

The following table summarizes the assumptions used in the Black-Scholes option-pricing model to determine the fair value of our common shares to be issued under the ESPP:

	Year Ended December 31,		
	2021	2020	2019
Fair value of common stock	$16.97 - $22.33	$13.06 - $15.03	$14.59 - $16.35
Risk-free interest rate	0.04% - 0.24%	0.09% - 0.18%	1.60% - 2.35%
Expected term (in years)	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
Volatility	50% - 62%	48% - 68%	29% - 39%
Dividend yield	—%	—%	—%

Stock-based compensation expense related to stock options, ESPP and restricted stock units and awards is included in the consolidated statements of operations as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Cost of product, subscription and support revenue	$ 13,330	$ 10,336	$ 8,830
Cost of professional services revenue	24,663	17,501	13,225
Research and development	36,535	23,943	14,972
Sales and marketing	42,161	36,428	38,222
General and administrative	34,676	25,176	29,966
Restructuring	40	314	—
Total stock-based compensation expense from continuing operations	151,405	113,698	105,215
Discontinued operations	31,910	42,409	48,303
Total stock-based compensation expense	$ 183,315	$ 156,107	$ 153,518

As of December 31, 2021, total compensation cost related to stock-based awards not yet recognized was $302.5 million, which is expected to be amortized on a straight-line basis over the weighted-average remaining vesting period of approximately 2.6 years.

16. Income Taxes

Loss before income taxes from continuing operations consisted of the following (in thousands):

	Year Ended December 31,		
	2021	2020	2019
United States	$ (296,105)	$ (224,544)	$ (217,497)
Foreign	(112,614)	$ (124,334)	(162,962)
Total	$ (408,719)	$ (348,878)	$ (380,459)

The provision for (benefit from) income taxes for continuing operations consisted of the following (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Federal:			
Current	$ —	$ —	$ —
Deferred	7	(1,143)	(16,901)
State:			
Current	172	107	85
Deferred	(160)	(718)	(4,560)
Foreign:			
Current	2,167	2,796	3,399
Deferred	1,195	(582)	438
Total	$ 3,381	$ 460	$ (17,539)

Reconciliation of the federal statutory income tax rate to the effective tax rate is as follows:

	Year Ended December 31,		
	2021	2020	2019
Federal statutory rate	21.0 %	21.0 %	21.0 %
Effect of:			
State taxes, net of federal tax benefit	—	0.2	1.2
Change in valuation allowance	(15.0)	(12.3)	(11.3)
Research and development tax credit	0.5	0.7	0.6
Stock-based compensation	(0.2)	(1.7)	(1.2)
Impact of foreign tax differential	(6.4)	(8.0)	(5.1)
Non-deductible/non-taxable items	(0.5)	0.2	(0.5)
Other, net	(0.2)	(0.2)	(0.1)
Total	(0.8)%	(0.1)%	4.6 %

The components of the deferred tax assets and liabilities are as follows (in thousands):

	As of December 31,	
	2021	2020
Deferred tax assets:		
Net operating loss carryforwards	$ 45,868	$ 121,001
Accruals and reserves	22,701	12,766
Stock-based compensation	6,247	7,631
Fixed assets	—	1,800
Lease liability	16,383	14,034
Deferred revenue	73,362	132,262
Intangible asset, net	—	—
Tax credit carryforwards	42,538	66,677
Capital loss carryforward	17,978	—
Other deferred tax assets	412	265
Gross deferred tax assets	225,489	356,436
Valuation allowance	(187,198)	(285,008)
Total deferred tax assets	38,291	71,428
Deferred tax liabilities:		
Deferred cost of goods sold	—	(4,905)
Acquisition related intangibles	(1,134)	(10,510)
Fixed Assets	(3,789)	—
Right of use asset	(6,359)	(7,686)
Convertible senior notes	(17,573)	(27,997)
Deferred commissions	(7,574)	(17,381)
Total deferred tax liabilities	(36,429)	(68,479)
Total net deferred tax assets	$ 1,862	$ 2,949

In December 2019, we completed an intra-entity asset transfer of certain of our intellectual property rights to an Irish subsidiary where our international business is headquartered. The transfer resulted in a step-up in the tax basis of the transferred intellectual property rights and a correlated increase in foreign deferred tax assets. As of December 31, 2021, we believe it is more likely than not that these additional foreign deferred tax assets will not be realized and therefore, are offset by a full valuation allowance. Due to our history of losses we believe it is more likely than not that our U.S. deferred tax assets will not be realized as of December 31, 2021. Accordingly, we have established a full valuation allowance on our U.S. deferred tax assets. Our valuation allowance decreased by approximately $97.8 million during the year ended December 31, 2021. This change is primarily attributable to the utilization of tax attributes in the sale of the Products business.

In July 2015, the U.S. Tax Court issued an opinion in Altera Corp. v. Commissioner related to the treatment of stock-based compensation expense in an intercompany cost-sharing arrangement (CSAs). The opinion invalidated part of a treasury regulation requiring stock-based compensation to be included in any qualified intercompany cost-sharing arrangement. On June 7, 2019, the U.S. Court of Appeals for the Ninth Circuit reversed the U.S. Tax Court's decision. On July 22, 2019, Altera Corp. filed a petition for an en banc rehearing before the U.S. Court of Appeals for the Ninth Circuit, which was denied on November 12, 2019. On February 10, 2020, Altera Corp. filed a petition to the U.S. Supreme Court for review of the decision. On June 22, 2020, the U.S. Supreme Court declined to issue a writ of certiorari, thus leaving intact the U.S. Court of Appeals for the Ninth Circuit's 2019 decision upholding the validity of the Treasury regulations that require related parties to share the costs of stock-based compensation as a component of their intangible development costs in CSAs. We previously recorded a tax benefit based on the Tax Court's opinion issued in 2015, which was offset by a corresponding increase in the valuation allowance against U.S. deferred tax assets. In 2019, we recorded a reduction of $9.4 million to our deferred tax asset for U.S. net operating loss carryforwards, which are subject to a valuation allowance. In 2020, as a result of the U.S. Supreme Court's decision, we reversed the reduction of $9.4 million to our deferred tax assets for U.S. net operating loss carryforwards, which is fully offset by valuation allowance.

As of December 31, 2021, we had federal, state and foreign net operating loss carry forwards of approximately $30.4 million, $478.5 million and $115.6 million, respectively, available to reduce future taxable income, if any. If not utilized, the state net operating loss carry forwards will expire from the years ending December 31, 2022 through 2037. Most of the federal net operating losses and all of the foreign net operating loss can be carried forward indefinitely.

As of December 31, 2021, we also had federal and state income tax credit carry forwards of approximately $22.2 million and $25.8 million, respectively. If not utilized, the federal credit carry forwards will expire in various amounts from the years ended December 31, 2037 through 2041. Most of the state tax credits can be carried forward indefinitely.

Utilization of the net operating loss carry forwards and credits may be subject to an annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization.

As of December 31, 2021, we had $52.4 million of unrecognized tax benefits, of which if recognized, $5.4 million would affect our effective tax rate. We file income tax returns in U.S. federal, state and foreign jurisdictions. As we have net operating loss carry forwards for U.S. federal and state jurisdictions, the statute of limitations is open for all tax years. For material foreign jurisdictions, the tax years open to examination include the years 2016 and forward. We recognize both interest and penalties associated with uncertain tax positions as a component of income tax expense. During the year ended December 31, 2021, we recognized interest and penalties of $142,000. During the years ended December 31, 2020 and 2019, we recognized a $96,000 and $113,000 increase to interest and penalties, respectively. As of December 31, 2021 and 2020, our total accrual for interest and penalties was $906,000 and $764,000, respectively. The ultimate amount and timing of any future cash settlements cannot be predicted with reasonable certainty.

A reconciliation of gross unrecognized tax benefits is as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Unrecognized tax benefits at the beginning of the period	$ 50,191	$ 56,134	$ 42,490
Increases related to current year tax positions	2,450	3,401	7,076
Increases related to prior year tax positions	—	281	6,654
Decreases related to prior year tax positions	(232)	(9,389)	—
Decreases related to settlements with taxing authorities	—	(227)	(29)
Decreases related to lapse of statute of limitations	(40)	(9)	(57)
Unrecognized tax benefits at the end of the period	$ 52,369	$ 50,191	$ 56,134

As of December 31, 2021, we have not provided for state income taxes or foreign withholding taxes on the undistributed earnings of certain foreign subsidiaries which are considered indefinitely invested outside of the U.S. Determination of the amount of unrecognized deferred tax liability related to these earnings is not practicable.

17. Net Income (Loss) per Share

We calculate our basic and diluted net income (loss) per share in conformity with the two-class method required for companies with participating securities based upon income (loss) from continuing operations. Under the two-class method, net income (loss) is determined by allocating undistributed earnings, calculated as net income (loss) less current period convertible preferred stock cumulative dividends, between common stock and the convertible preferred stock. In computing diluted net income, undistributed earnings are re-allocated to reflect the potential impact of dilutive securities. Our basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period. The diluted net loss per share attributable to common stockholders is computed by giving effect to all potential dilutive common stock equivalents outstanding for the period. For purposes of this calculation, convertible preferred stock, options to purchase common stock and convertible senior notes are considered common stock equivalents, but have been excluded from the calculation of diluted net loss per share as their effect is anti-dilutive. As we had net losses from continuing operations for the years ended December 31, 2021, 2020 and 2019, all potential common shares were excluded as they were determined to be anti-dilutive.

The following table sets forth the computation of net loss per common share (in thousands, except per share amounts):

	Year Ended December 31,		
	2021	2020	2019
Numerator:			
Loss from continuing operations	$ (412,100)	$ (349,338)	$ (362,920)
Net income from discontinued operations	1,328,241	142,037	105,511
Net income (loss)	916,141	(207,301)	(257,409)
Dividend on series A convertible preferred stock	(18,354)	(1,050)	—
Accretion of series A convertible preferred stock	(82)	(4,653)	—
Net income (loss) attributable to common stockholders, basic and diluted	$ 897,705	$ (213,004)	$ (257,409)
Denominator:			
Weighted average number of shares outstanding—basic and diluted	236,367	223,308	207,234
Net income (loss) per share attributable to common stockholders, basic and diluted:			
Continuing operations	$ (1.82)	$ (1.59)	$ (1.75)
Discontinued operations	5.62	0.64	0.51
Total net income (loss) per share attributable to common stockholders, basic and diluted	$ 3.80	$ (0.95)	$ (1.24)

The following outstanding options, unvested shares and units, ESPP shares, shares issuable upon the conversion of our Convertible Senior Notes, convertible preferred stock and shares contingently issuable were excluded (as common stock equivalents) from the computation of diluted net income(loss) per common share for the periods presented as their effect would have been anti-dilutive (in thousands):

	As of December 31,		
	2021	2020	2019
Options to purchase common stock	2,018	3,485	4,391
Unvested restricted stock awards and units	19,023	20,400	21,697
Convertible preferred stock	24,313	23,249	—
Convertible senior notes	33,856	33,856	35,442
ESPP shares	131	197	166

18. Employee Benefit Plan

401(k) Plan

We have established a 401(k) tax-deferred savings plan (the "401(k) Plan") which permits participants to make contributions by salary deduction pursuant to Section 401(k) of the Internal Revenue Code of 1986, as amended. All participants' interests in their deferrals are 100% vested when contributed. We are responsible for administrative costs of the 401(k) Plan and have made no matching contributions into our 401(k) Plan since inception. Under the 401(k) Plan, pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. The 401(k) Plan is intended to qualify under Sections 401(a) and 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) Plan and earnings on those contributions are not taxable to the employees until distributed, and all contributions are deductible by us when and if made.

19. Segment and Major Customers Information

Disaggregation of revenue by geography

Following the sale of the FireEye Products business, we report our results of operations under one reportable segment, Mandiant Solutions, consisting of (i) platform, cloud subscription and managed services and (ii) professional services. We conduct business globally and are primarily managed on a geographic basis. Our Chief Executive Officer, who is our chief operating decision maker, reviews financial information presented on a consolidated basis accompanied by information about revenue by geographic region for purposes of allocating resources and evaluating financial performance. We define our regions as United States ("U.S."), Europe, the Middle East, and Africa ("EMEA"), Asia Pacific and Japan ("APAC"), and all remaining geographies (primarily Latin America and Canada) included in Others. There are no segment executives who are held accountable for operations, operating results, and plans for levels, components, or types of products or services below the consolidated unit level. Accordingly, we are considered to be a single reportable segment and operating unit structure.

As discussed in Note 2, the results of product and related subscription and support revenue during the years ended December 31, 2021, 2020, and 2019 have been included in discontinued operations due to the Purchase Agreement entered into with a consortium led by STG and closing of the sale.

Revenue by geographic region based on the billing address is as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
U.S.	$ 331,301	$ 280,888	$ 230,650
EMEA	66,424	51,249	48,518
APAC	49,518	36,615	31,571
Other	36,212	30,957	20,631
Total revenue	$ 483,455	$ 399,709	$ 331,370

Disaggregation of revenue by product category

Our continuing operations generate revenue from sales of our Mandiant Solutions software-as-a-service platform and modules, subscriptions to our managed services and consulting services engagements. We disaggregate our revenue from continuing operations into two main categories: (i) platform, cloud subscription and managed services and (ii) consulting services.

Our platform, cloud subscription and managed services category includes our Mandiant Advantage software-as-a-service platform and our threat intelligence, security validation, attack surface management and automated defense modules, as well as our managed services for detection and response and security validation. We deliver our managed services and platform entirely through the cloud or, in the case of our security validation software, either through the cloud or in a hybrid on-premise/cloud configuration.

Our consulting services include incident response and other security consulting services to our customers who have experienced a cybersecurity breach or desire assistance assessing the resilience of their information systems infrastructure. The majority of our consulting services are offered on a time and materials basis, through a fixed fee arrangement, or on a retainer basis. Revenue from consulting services is recognized as services are delivered. Revenue from our pre-paid Expertise On Demand subscription and some pre-paid consulting services is deferred and recognized when services are delivered.

The following table depicts the disaggregation of revenue according to revenue type and is consistent with how we evaluate our financial performance (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Revenue by Category			
Platform, cloud subscription and managed services	235,077	198,695	163,583
Professional services	248,378	201,014	167,787
Total revenue	$ 483,455	$ 399,709	331,370

Long lived assets by geography

Long lived assets by geographic region based on physical location is as follows (in thousands):

	As of December 31,	
	2021	2020
Property and Equipment, net:		
United States	$ 42,116	$ 59,323
International	4,213	5,013
Total property and equipment, net	$ 46,329	$ 64,336

For the years ended December 31, 2021 and 2020, one reseller represented 10% of the Company's total revenue, but did not represent 10% or greater of the Company's total revenue for the years ended December 31, 2019.

As of December 31, 2021 and 2020, no customer represented 10% or more of the Company's net accounts receivable balance.

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

None.

Item 9A. Controls and Procedures

Limitations on Effectiveness of Controls

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

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, 2021. The term "disclosure controls and procedures," as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (or the "Exchange Act"), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to 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 management, including our principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Based on our evaluation, our chief executive officer and chief financial officer concluded that, as of December 31, 2021, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2021 based on the criteria related to internal control over financial reporting described in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2021.

Deloitte & Touche LLP, the independent registered public accounting firm that audited the consolidated financial statements included in this Form 10-K, has issued a report, included herein, on the effectiveness of the Company's internal control over financial reporting as of December 31, 2021.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Mandiant, Inc. (formerly FireEye, Inc.)

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Mandiant, Inc. (formerly FireEye, Inc.) and subsidiaries (the "Company") as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2021, of the Company and our report dated March 1, 2022, expressed an unqualified opinion on those consolidated financial statements and included an emphasis-of-matter paragraph regarding the sale of the FireEye Products business.

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 US 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/ DELOITTE & TOUCHE LLP

San Jose, California
March 1, 2022

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

The information required by this item is incorporated by reference to our Proxy Statement for our 2022 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2021.

As part of our system of corporate governance, our board of directors has adopted a code of business conduct and ethics. The code applies to all of our employees, officers (including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions), agents and representatives, including our independent directors and consultants, who are not employees of ours, with regard to their Mandiant-related activities. Our code of business conduct and ethics is available on our website at www.mandiant.com in the Corporate Governance section of our Investor Relations webpage. We will post on this section of our website any amendment to our code of business conduct and ethics, as well as any waivers of our code of business conduct and ethics, that are required to be disclosed by the rules of the SEC or the NASDAQ Stock Market. The information on our website is not incorporated by reference into this Annual Report on Form 10-K.

Item 11. Executive Compensation

The information required by this item is incorporated by reference to our Proxy Statement for our 2022 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2021.

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

The information required by this item is incorporated by reference to our Proxy Statement for our 2022 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2021.

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 2022 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2021.

Item 14. Principal Accountant Fees and Services

The information required by this item is incorporated by reference to our Proxy Statement for our 2022 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year ended December 31, 2021.

PART IV

Item 15. Exhibit and Financial Statement Schedules

Documents filed as part of this report are as follows:

1. Consolidated Financial Statements:

Our Consolidated Financial Statements are listed in the "Index to Consolidated Financial Statements" in Part II, Item 8 of this Annual Report on Form 10-K.

2. Financial Statement Schedules:

Schedule II - Valuation and Qualifying Accounts is included below, and should be read in conjunction with the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K. All other schedules have been omitted because they are not required, not applicable, or the required information is included elsewhere in this Annual Report on Form 10-K.

3. Exhibits Required by Item 601 of Regulation S-K:

		Incorporated by Reference			
Exhibit No.	**Description of Exhibit**	**Form**	**File No.**	**Exhibit**	**Filing Date**
2.1+	Agreement and Plan of Reorganization, dated as of May 28, 2019, by and among the Registrant, Viking Merger Corporation, Viking Merger LLC, Verodin, Inc. and Shareholder Representative Services LLC.	8-K	001-36067	2.1	May 28, 2019
2.2+	Agreement and Plan of Reorganization, dated as of November 18, 2020, by and among the Registrant, Bravo Merger Acquisition Corporation, Bravo Merger Acquisition LLC, Respond Software, Inc. and Fortis Advisors LLC.	8-K	001-36067	2.1	November 19, 2020
2.3+	Asset Purchase Agreement, dated as of May 29, 2021, by and between the Registrant and Polaris Buyer LLC.	8-K	001-36067	2.1	June 2, 2021
2.4+	Amendment to Asset Purchase Agreement, dated as of October 8, 2021, by and between the Registrant and Magenta Buyer LLC.	8-K	001-36067	2.1	October 8, 2021
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	8-K	001-36067	3.1	September 25, 2013
3.2	Certificate of Amendment to Certificate of Incorporation of the Registrant.	8-K	001-36067	3.1	October 4, 2021
3.3	Amended and Restated Bylaws of the Registrant.	8-K	001-36067	3.2	October 4, 2021
3.4	Certificate of Designations of the Registrant.	8-K	001-36067	3.1	December 11, 2020
4.1*	Form of the Registrant's common stock certificate.				
4.2	Indenture, dated as of June 2, 2015, between the Registrant and U.S. Bank National Association.	8-K	001-36067	4.1	June 5, 2015
4.3	Form of Global 1.000% Convertible Senior Note due 2035 (included in Exhibit 4.2).	8-K	001-36067	4.2	June 5, 2015
4.4	Indenture, dated as of June 2, 2015, between the Registrant and U.S. Bank National Association.	8-K	001-36067	4.3	June 5, 2015
4.5	Form of Global 1.625% Convertible Senior Note due 2035 (included in Exhibit 4.4).	8-K	001-36067	4.4	June 5, 2015
4.6	Indenture, dated as of May 24, 2018, between the Registrant and U.S. Bank National Association.	8-K	001-36067	4.1	May 25, 2018
4.7	Form of Global 0.875% Convertible Senior Note due 2024 (included in Exhibit 4.6).	8-K	001-36067	4.2	May 25,2018

4.8*	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934.				
10.1†	Form of Indemnification Agreement between the Registrant and certain of its officers and directors.	S-1	333-190338	10.1	August 2, 2013
10.2†	Employee Incentive Plan.	S-1	333-190338	10.17	August 2, 2013
10.3†	Change of Control Severance Policy for Officers.	S-1/A	333-190338	10.27	August 21, 2013
10.4†	2008 Stock Plan, as amended, including form agreements under 2008 Stock Plan.	S-1/A	333-190338	10.6	September 9, 2013
10.5†	2013 Equity Incentive Plan, including form agreements under 2013 Equity Incentive Plan.	S-1/A	333-193717	10.6	March 3, 2014
10.6†	2013 Employee Stock Purchase Plan, as amended and restated as of August 2, 2016.	10-Q	001-36067	10.1	November 4, 2016
10.7†	Mandiant Corporation 2011 Equity Incentive Plan, as amended, including form agreements under Mandiant Corporation 2011 Equity Incentive Plan.	S-1	333-193717	10.8	February 3, 2014
10.8†	Outside Director Compensation Policy, as amended and currently in effect.	10-Q	001-36067	10.1	April 30, 2021
10.9†	Offer Letter between the Registrant and Enrique Salem, dated February 2, 2013.	S-1	333-190338	10.11	August 2, 2013
10.10†	Offer Letter between the Registrant and Ronald E. F. Codd, dated July 28, 2012.	S-1	333-190338	10.12	August 2, 2013
10.11†	Offer Letter between the Registrant and Kimberly Alexy, dated December 12, 2014.	8-K	001-36067	10.1	January 8, 2015
10.12†	Offer Letter between the Registrant and Stephen Pusey, dated June 12, 2015.	8-K	001-36067	10.1	June 17, 2015
10.13†	Offer Letter between the Registrant and Robert E. Switz, dated September 11, 2017.	8-K	001-36067	10.1	September 13, 2017
10.14†	Offer Letter between the Registrant and Adrian McDermott, dated January 25, 2019.	8-K	001-36067	10.1	February 6, 2019
10.15†	Offer Letter between the Registrant and Alexa King, dated August 1, 2013.	S-1/A	333-190338	10.16	August 21, 2013
10.16†	Offer Letter between the Registrant and Kevin Mandia, dated December 24, 2013.	8-K	001-36067	10.1	January 2, 2014
10.17†	Offer Letter between the Registrant and William Robbins, dated October 31, 2016.	10-K	001-36067	10.21	February 24, 2017
10.18†	Offer Letter between the Registrant and Frank Verdecanna, dated February 20, 2018.	10-K/A	001-36067	10.21	March 1, 2018
10.19†	Offer Letter between the Registrant and Peter Bailey, dated February 11, 2020.	10-K	001-36067	10.20	February 21, 2020
10.20†	Offer Letter between the Registrant and John Watters, dated April 1, 2021.	8-K	001-36067	10.1	April 7, 2021
10.21†	Offer Letter between the Registrant and Sara Andrews, dated August 3, 2020.	8-K	001-36067	10.1	August 11, 2020
10.22†	Offer Letter between the Registrant and Arthur W. Coviello, dated December 10, 2020.	8-K	001-36067	10.5	December 11, 2020

10.23†	Key Employee Non-Competition Agreement, dated as of December 30, 2013, by and between Kevin Mandia and the Registrant.	8-K	001-36067	10.3	January 2, 2014
10.24†	Transition Agreement between the Registrant and Alexa King, effective as of October 6, 2021.	8-K	001-36067	10.1	October 8, 2021
10.25	Lease, dated as of August 4, 2016, by and between the Registrant and 601 McCarthy Owner, LLC.	8-K	001-36067	10.1	August 16, 2016
10.26	First Amendment, dated as of December 1, 2016, to the Lease dated as of August 4, 2016 by and between the Registrant and 601 McCarthy Owner, LLC.	10-K/A	001-36067	10.26	March 1, 2018
10.27	Second Amendment, dated as of October 19, 2017, to the Lease dated as of August 4, 2016 by and between the Registrant and 601 McCarthy Owner, LLC.	10-K/A	001-36067	10.27	March 1, 2018
10.28*	Lease, dated as of December 4, 2020, by and between the Registrant and One Freedom Square, L.L.C.				
10.29	Purchase Agreement, dated May 27, 2015, among the Registrant and Morgan Stanley & Co. LLC and J.P. Morgan Securities LLC, as representatives of the several Initial Purchasers named in Schedule I thereto.	8-K	001-36067	10.1	May 29, 2015
10.30	Forward Stock Purchase Transaction, dated May 27, 2015, between the Registrant and Morgan Stanley & Co. LLC.	8-K	001-36067	10.2	May 29, 2015
10.31	Forward Stock Purchase Transaction, dated May 27, 2015, between the Registrant and Morgan Stanley & Co. LLC.	8-K	001-36067	10.3	May 29, 2015
10.32	Form of Capped Call Confirmation.	8-K	001-36067	10.1	May 25, 2018
10.33+	Securities Purchase Agreement, dated as of November 18, 2020, by and between Registrant and BTO Delta Holdings DE L.P.	8-K	001-36067	10.1	November 19, 2020
10.34+	Securities Purchase Agreement, dated as of November 18, 2020, by and among Registrant, ClearSky Security Fund I LLC and ClearSky Power and Technology Fund II LLC.	8-K	001-36067	10.2	November 19, 2020
10.35	Amendment to Securities Purchase Agreement by and between the Registrant and Blackstone Delta Holdings DE L.P. (formerly known as BTO Delta Holdings DE L.P.) dated December 11, 2020.	8-K	001-36067	10.1	December 11, 2020
10.36	Amendment to Securities Purchase Agreement by and among the Registrant, ClearSky Security Fund I LLC and ClearSky Power & Technology Fund II LLC dated December 11, 2020.	8-K	001-36067	10.2	December 11, 2020
10.37	Registration Rights Agreement by and between the Registrant and Blackstone Delta Holdings DE L.P. dated December 11, 2020.	8-K	001-36067	10.3	December 11, 2020
10.38	Registration Rights Agreement by and among the Registrant, ClearSky Security Fund I LLC and ClearSky Power & Technology Fund II LLC dated December 11, 2020.	8-K	001-36067	10.4	December 11, 2020
21.1*	List of subsidiaries of the Registrant.				
23.1*	Consent of Deloitte & Touche LLP, independent registered public accounting firm.				
24.1*	Power of Attorney (included on the signature page to this Annual Report on Form 10-K).				
31.1*	Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Executive Officer.				

31.2*	Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Financial Officer.
32.1**	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.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.
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith.
** Furnished herewith.
+ The schedules and other attachments to this exhibit have been omitted. The Registrant agrees to furnish a copy of any omitted schedules or attachments to the SEC upon request.
† Indicates a management contract or compensatory plan or arrangement.

SCHEDULE II

VALUATION AND QUALIFYING ACCOUNTS

(in thousands)

Allowance for doubtful accounts receivable	Balance at beginning of period	Charged to cost and expenses	Write-offs, net of recoveries	Balance at end of period
Year ended December 31, 2019	$ 1,641	$ 825	$ (2,269)	$ 197
Year ended December 31, 2020	197	1,579	(551)	1,225
Year ended December 31, 2021	1,225	96	(515)	806

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on March 1, 2022.

MANDIANT, INC.

By: /s/ KEVIN R. MANDIA
Kevin R. Mandia
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL THESE PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kevin R. Mandia, Frank E. Verdecanna, James Medina and Richard Meamber, and each of them, his or her attorneys-in-fact, each with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each said attorneys-in-fact or his substitute or substitutes, may do or cause to be done by virtue hereof.

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 and on the dates indicated.

Signature	Title	Date
/S/ KEVIN R. MANDIA Kevin R. Mandia	Chief Executive Officer and Director *(Principal Executive Officer)*	March 1, 2022
/S/ FRANK E. VERDECANNA Frank E. Verdecanna	Executive Vice President and Chief Financial Officer *(Principal Financial Officer)*	March 1, 2022
/S/ JAMES MEDINA James Medina	Senior Vice President, Finance, Corporate Controller and Chief Accounting Officer *(Principal Accounting Officer)*	March 1, 2022
/S/ KIMBERLY ALEXY Kimberly Alexy	Director	March 1, 2022
/S/ SARA C. ANDREWS Sara C. Andrews	Director	March 1, 2022
/S/ RONALD E. F. CODD Ronald E. F. Codd	Director	March 1, 2022
/S/ ARTHUR W. COVIELLO, JR. Arthur W. Coviello, Jr.	Director	March 1, 2022
/S/ ADRIAN McDERMOTT Adrian McDermott	Director	March 1, 2022
/S/ VIRAL PATEL Viral Patel	Director	March 1, 2022
/S/ ENRIQUE T. SALEM Enrique T. Salem	Director	March 1, 2022
/S/ ROBERT E. SWITZ Robert E. Switz	Director	March 1, 2022

Exhibit 4.1


MN
MANDIANT
This certifies that
FULLY PAID AND NONASSESSABLE SHARES OF COMMON STOCK, $0.0001 PAR VALUE, OF
Mandiant, Inc.
WITNESS the facsimile seal of the Corporation and the facsimile signatures of its duly authorized officers.
Dated:
Mandiant, Inc.
CORPORATE
SEAL
DELAWARE
AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

The Corporation shall furnish without charge to each stockholder who so requests a statement of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock of the Corporation or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Such requests shall be made to the Corporation's Secretary at the principal office of the Corporation.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	—	as tenants in common
TEN ENT	—	as tenants by the entireties
JT TEN	—	as joint tenants with right of survivorship and not as tenants in common
COM PROP	—	as community property

UNIF GIFT MIN ACT	—	..... Custodian ..... (Cust) (Minor) Under Uniform Gifts to Minors Act ..... (State)
UNIF TRF MIN ACT	—	..... Custodian (until age .....) (Cust) ..... Under Uniform Transfers (Minor) to Minors Act ..... (State)

Additional abbreviations may also be used though not in the above list.

FOR VALUE RECEIVED, hereby sell(s), assign(s) and transfer(s) unto

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

_____

_____ shares

of the capital stock represented by the within Certificate, and do hereby irrevocably constitute and appoint

_____ attorney-in-fact

to transfer the said stock on the books of the within named Corporation with full power of substitution in the premises.

Dated _____

X _____

X _____

NOTICE: THE SIGNATURE TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT OR ANY CHANGE WHATSOEVER.

Signature(s) Guaranteed:

By _____

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (BANKS, STOCKBROKERS, SAVINGS AND LOAN ASSOCIATIONS AND CREDIT UNIONS WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM), PURSUANT TO S.E.C. RULE 17Ad-15. GUARANTEES BY A NOTARY PUBLIC ARE NOT ACCEPTABLE. SIGNATURE GUARANTEES MUST NOT BE DATED.

Exhibit 4.8

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Mandiant, Inc. ("us," "our," "we" or the "Company") has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: our common stock. The following description is a summary of the rights of our common stock and summarizes certain provisions of our amended and restated certificate of incorporation and our amended and restated bylaws. This summary does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, copies of which have been filed as exhibits to this Annual Report on Form 10-K, as well as to the applicable provisions of the Delaware General Corporation Law.

Our authorized capital stock consists of 1,100,000,000 shares, with a par value of $0.0001 per share, of which:

- 1,000,000,000 shares are designated as common stock; and
- 100,000,000 shares are designated as preferred stock.

Common Stock

The holders of common stock are entitled to one vote per share on all matters submitted to a vote of our stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of common stock entitled to vote in any election of directors may elect all of the directors standing for election. Subject to preferences that may be applicable to any preferred stock outstanding at the time, the holders of outstanding shares of common stock are entitled to receive ratably any dividends declared by our board of directors out of assets legally available. Upon our liquidation, dissolution, or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any then outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

Our common stock is listed on The NASDAQ Global Select Market under the symbol "MNDT."

Anti-Takeover Effects of Delaware Law and Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could have the effect of delaying, deferring, or discouraging another party from acquiring control of us. These provisions and certain provisions of Delaware law, which are summarized below, could discourage takeovers, coercive or otherwise. These provisions are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us.

Undesignated Preferred Stock. Our board of directors has the ability to designate and issue preferred stock with voting or other rights or preferences that could deter hostile takeovers or delay changes in our control or management.

Limits on Ability of Stockholders to Act by Written Consent or Call a Special Meeting. Our amended and restated certificate of incorporation provides that our stockholders may not act by written consent. This limit on the ability of stockholders to act by written consent may lengthen the amount of time required to take stockholder actions. As a result, the holders of a majority of our capital stock are not able to amend the amended and restated bylaws or remove directors without holding a meeting of stockholders called in accordance with the amended and restated bylaws.

In addition, our amended and restated bylaws provide that special meetings of the stockholders may be called only by our board of directors, the chairperson of our board of directors, our chief executive officer or our president (in the absence of a chief executive officer). A stockholder may not call a special meeting, which may delay the ability of our stockholders to force consideration of a proposal or for holders controlling a majority of our capital stock to take any action, including the removal of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals. Our amended and restated bylaws contain advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee of the board of directors. These advance notice procedures may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed and may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempt to obtain control of our company.

Board Classification. Our board of directors is divided into three classes. The directors in each class serve for a three-year term, one class being elected each year by our stockholders. This system of electing and removing directors may discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Delaware Anti-Takeover Statute. We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding but not the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the date of the transaction, the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, owned 15% or more of a corporation's outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

The provisions of Delaware law and the provisions of our amended and restated certificate of incorporation and amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions might also have the effect of preventing changes in our management. It is also possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC.

Exhibit 10.28

LEASE

BETWEEN

ONE FREEDOM SQUARE, L.L.C.

(as Landlord)

AND

FIREEYE, INC.

(as Tenant)

One Freedom Square
11951 Freedom Drive
Reston, Virginia

TABLE OF CONTENTS

LEASE

THIS LEASE ("**Lease**") is made as of December 4, 2020 (the "**Effective Date**") by and between ONE FREEDOM SQUARE, L.L.C., a Delaware limited liability company ("**Landlord**") and FIREEYE, INC., a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord developed a two-building complex in the Reston Town Center. The first building ("**One Freedom Square**" or the "**Building**") is a building consisting of eighteen (18) stories above grade and one (1) story below grade located at 11951 Freedom Drive, Reston, Virginia, containing approximately 427,526 total square feet of office and retail space, and other related improvements. The second building ("**Two Freedom Square**") is a sixteen (16) story building containing office and retail space. Two (2) structured parking facilities located adjacent to the Building serve the Building (such parking facilities and land on which they are located are collectively, the "**Parking Garages**"). The land on which the buildings are constructed (the "**Land**"), Two Freedom Square, One Freedom Square, the Parking Garages and all other improvements located on the Land are referred to herein interchangeably as "Freedom Square" or the "**Complex**".

B. Tenant desires to lease space in the Building from Landlord, and Landlord is willing to lease space in the Building to Tenant, upon the terms, conditions, covenants and agreements set forth herein.

C. Landlord's affiliate (the "**Two Freedom Owner**"), as landlord, and Tenant, as tenant, are parties to that certain Deed of Lease dated as of April 2, 2018 for certain premises (the "**Two Freedom Premises**") located in Two Freedom Square (the "**Two Freedom Lease**"). Concurrently herewith, the Two Freedom Owner and Tenant are entering into an agreement (the "**Two Freedom Early Termination Amendment**") to accelerate the scheduled expiration date of the Lease Term under the Two Freedom Lease to the date that is the day immediately preceding the Lease Commencement Date (as defined below) under this Lease, without payment by Tenant or Landlord of any termination fee or other compensation for such accelerated expiration.

NOW, THEREFORE, the parties hereto, intending legally to be bound, hereby covenant and agree as set forth below:

ARTICLE I
THE PREMISES

1.1 Landlord hereby demises and leases to Tenant and Tenant hereby leases from Landlord, for the term and upon the terms, conditions, covenants and agreements herein provided, 46,646 square feet of rentable area, located on and comprised of the entire rentable area of the fifth (5th) floor (23,323 rentable square feet) and sixth (6th) floor (23,323 rentable square feet) of the Building ("**Premises**"), such amount of rentable area having been conclusively determined and agreed-upon by the parties, it being expressly understood and agreed that Tenant shall have no right of remeasurement with respect to the Premises and/or Building (or any portion thereof). The location and configuration of the Premises are outlined on Exhibit A attached hereto and made a part hereof.

1.2 The lease of the Premises includes the right, together with other tenants of the Building and members of the public, to use the common and public areas within the Building,

but includes no other rights not specifically set forth herein. The lease of the Premises also is subject to any covenants, conditions and restrictions of record.

1.3 Landlord represents and warrants that the rentable square footage set forth in Section 1.1 has been calculated in accordance with the American National Standards Institute, Inc./Building Owners and Managers Association standard method of measuring floor area, ANSI/BOMA Z65.1-2010 ("**BOMA**"). Notwithstanding anything in this Lease to the contrary, both parties acknowledge and agree that the rentable square footage of the fitness facility referenced in Section 14.7 below has been included in calculating the "core area factor" for the Building.

1.4 Tenant shall have the right, upon written notice thereof received by Landlord not later than November 1, 2020 (the "**Hold Space Election Deadline**"), to increase the initial Premises set forth in Section 1.1 above by leasing all or a mutually agreed portion of: (a) 14,335 rentable square located on and comprising a portion of the rentable area of the fourth (4th) floor, (b) 16,374 rentable square feet located on and comprising a portion of the rentable area of the seventh (7th) floor, (c) 27,158 rentable square feet located on and comprising the entire rentable area of the second (2nd) floor, and (d) 6,711 rentable square feet located on the plaza level of the Building (as timely elected by Tenant, the "**Hold Space**"; and each of clauses (a), (b), (c) and (d) being referred to as a "component-part" of the Hold Space), and the exact location and configuration of any portion of a component-part of the Hold Space to be leased by Tenant hereunder shall be subject to Landlord's prior written approval, which approval shall not be unreasonably withheld, conditioned or delayed, provided that the remaining space on any floor on which the Hold Space is located is commercially marketable on customary terms, including a reasonable amount of window-line and reasonable configuration. If Tenant, at its option, elects to exercise its right hereunder to lease Hold Space in accordance with the foregoing, such written notice shall constitute Tenant's binding and irrevocable election with respect thereto (subject to Landlord's approval of the location and configuration thereof). In the event that Tenant leases any such Hold Space hereunder, such lease shall be on all of the same terms and conditions as are set forth in this Lease with respect to the initial Premises. Promptly after Tenant's written election, the parties shall execute an amendment to this Lease (reasonably acceptable to Landlord and Tenant) so modifying the Premises and confirming that any numbers or calculations based upon the rentable area included in the Premises shall be modified to correspond to such modified rentable area leased by Tenant hereunder. If Tenant does not timely notify Landlord that Tenant desires to lease Hold Space hereunder, then Tenant's rights with respect thereto under this Section 1.4 automatically shall be void and without force or effect.

ARTICLE II
TERM

2.1 All of the provisions of this Lease shall be in full force and effect from and after the Effective Date. The term of this Lease ("**Lease Term**") shall be for 129 full calendar months, commencing on the Lease Commencement Date, as determined pursuant to Section 2.2 hereof, and continuing for a period of 129 full calendar months thereafter, unless such Lease Term shall be terminated earlier in accordance with the provisions hereof or shall be extended in accordance with the provisions of Rider No. 1 to this Lease. Notwithstanding the foregoing, if the Lease Commencement Date shall occur on a day other than the first day of a month, the Lease Term shall commence on such date and continue for the balance of such month and for a period of 129 full calendar months thereafter. The term "**Lease Term**" shall include any and all renewals and extensions of the term of this Lease.

2.2 (a) "**Lease Commencement Date**" shall mean the earlier of (i) the later of (A) the date Landlord substantially completes the Leasehold Work (as defined in **Exhibit B**

attached hereto) in accordance with the provisions of **Exhibit B** and delivers vacant possession of the Premises to Tenant, or the date Landlord is deemed to have substantially completed the Leasehold Work in accordance with the provisions of **Exhibit B**, whichever is applicable, and (B) the date the Base Building Delivery Condition (as defined in **Exhibit B**) is satisfied, or (ii) the date Tenant commences beneficial use of the Premises. Tenant shall be deemed to have commenced beneficial use of the Premises when Tenant begins to conduct normal business operations in the Premises.

(b) Landlord presently anticipates that, provided Tenant timely complies with all of its obligations having bearing on the occurrence of the Lease Commencement Date in all material respects, including but not limited to those set forth in **Exhibit B**, the Lease Commencement Date will occur by June 1, 2021. In the event that substantial completion of the Leasehold Work or satisfaction of the Base Building Delivery Condition is delayed, regardless of the reasons or causes of such delay, this Lease shall not be rendered void or voidable as a result of such delay, and the Lease Term shall commence on the Lease Commencement Date as determined pursuant to Section 2.2(a) above. Furthermore, except as expressly provided in this Lease, Landlord shall not have any liability whatsoever to Tenant on account of any such delay.

2.3 Promptly after the Lease Commencement Date has occurred, Landlord and Tenant shall execute a written declaration setting forth the Lease Commencement Date, the date upon which the initial term of this Lease will expire, and the other information set forth therein. The form of such declaration is attached hereto as Exhibit D, and is made a part hereof. Any failure of the parties to execute such declaration shall not affect the validity of the Lease Commencement Date as determined in accordance with this Article.

2.4 For purposes of this Lease, the term "**Lease Year**" shall mean a period of twelve (12) consecutive calendar months, commencing on the Lease Commencement Date and each successive twelve (12) month period thereafter, except that if the Lease Commencement Date shall occur on a date other than the first day of a month, then the first Lease Year shall also include the period from the Lease Commencement Date to the first day of the following month.

2.5 Within thirty (30) days after the Effective Date of this Lease, Landlord shall pay to Tenant an amount equal to Five Hundred Twenty-Three Thousand Nine Hundred Forty-Four and 40/100 Dollars ($523,944.40) (the "**Overlook Sublease Payment**"), to be applied by Tenant against the rent payable by Tenant pursuant to Tenant's sub-sublease with Bechtel for approximately 12,234 rentable square feet located on the fourth (4th) floor of the office building located at 12011 Sunset Hills Road in Reston, Virginia (the "**Overlook Sublease**"). Tenant hereby (a) represents and warrants to Landlord that the term of the Overlook Sublease is scheduled to expire on December 31, 2021, that Tenant has removed all furniture, furnishings, equipment and other personal property from the space demised under the Overlook Sublease and that no party is occupying the space demised under the Overlook Sublease by, through or under Tenant, and (b) covenants that Tenant shall not amend the Overlook Sublease or enter into any other agreement or knowingly take any action or fail to take any action with respect to the Overlook Sublease that could increase Landlord's liability under this Section 2.5 from that existing as of the Effective Date hereof in any material respect (collectively, "**Tenant's Overlook Commitments**"). Landlord shall indemnify and hold harmless Tenant from and against all direct costs incurred by Tenant under the Overlook Sublease during the period commencing on the Effective Date of this Lease and ending on the date on which the term of the Overlook Sublease expires or is earlier terminated, except if and to the extent (i) constituting any rent payable by Tenant under the Overlook Sublease that is part of the Overlook Sublease Payment paid to Tenant, (ii) caused by Tenant's breach of Tenant's Overlook Commitments, (iii) arising out of Tenant's breach of the Overlook Sublease, or (iv) caused by the negligence or willful misconduct of Tenant, its employees or agents in connection with the Overlook Sublease;

provided, however, that in no event shall the aforesaid indemnity render Landlord responsible or liable for any indirect or consequential damages.

ARTICLE III
BASE RENT

3.1 (a) During the Lease Term, Tenant shall pay to Landlord as annual base rent (used interchangeably as "**Base Rent**" or "**base rent**") for the Premises, without set off, deduction or demand, except as expressly provided for in this Lease, an amount equal to the product of Forty-Eight and 00/100 Dollars ($48.00), *multiplied by* the total number of square feet of rentable area in the Premises as set forth in Section 1.1, which amount shall be increased as provided in Section 3.2 below. The annual base rent payable hereunder during each Lease Year shall be divided into equal monthly installments and such monthly installments shall be due and payable in advance on the first day of each month during such Lease Year. In addition, if the Lease Term begins on a date other than on the first day of a month, rent from such date until the first day of the following month shall be prorated on a per diem basis at the base rate payable during the first month, and such prorated rent shall be payable in advance on the Lease Commencement Date.

(b) (i) Notwithstanding anything to the contrary contained in this Article III, Landlord hereby agrees to grant Tenant an abatement of one hundred percent (100%) of the annual base rent payable hereunder for the first nine (9) full calendar months of the Lease Term (the total amount of such abated base rent, the "**Abatement**" and the period of such Abatement, the "**Abatement Period**"); provided, however, if an Event of Default occurs during the Abatement Period, then the foregoing abatement (prorated on a per diem basis) applicable to any days during which such Event of Default continues, uncured, shall be suspended until such Event of Default is cured, whereupon Tenant's entitlement to the abatement in base rent hereunder including, without limitation the portion applicable to the period of such suspension, shall resume from and thereafter. Thereafter Tenant shall pay the full amount of annual base rent due in accordance with the provisions of this Article III. Notwithstanding anything to the contrary in this Section 3.1(b), the rent escalation, as required by Section 3.2 below, shall be based on the full and unabated amount of rent payable for the first (1st) Lease Year as set forth in Section 3.1(a) above.

(ii) Tenant may elect to apply all or any portion of the Abatement provided above against the base rent payable pursuant to the Two Freedom Lease (the "**Two Freedom Abatement**") in lieu of the application thereof against the base rent payable under this Lease, by written notice thereof to Landlord (the "**Abatement Notice**") not later than thirty (30) days after the Effective Date of this Lease. If Tenant timely provides to Landlord the Abatement Notice then (A) the amount of the Abatement described in Section 3.1(b) above automatically shall be decreased by the equivalent amount of the Two Freedom Abatement elected by Tenant in the Abatement Notice, and (B) Landlord shall cause the Two Freedom Owner to apply such Two Freedom Abatement against the base rent next payable under the Two Freedom Lease following the Effective Date until applied in full; provided, however, if an Event of Default occurs under the Two Freedom Lease during any period in which Tenant otherwise is entitled to the Two Freedom Abatement, then such Two Freedom Abatement (prorated on a per diem basis) applicable to any days during which such Event of Default continues, uncured, shall be suspended until such Event of Default is cured, whereupon, provided that the Two Freedom Lease remains in full force and effect (and in all events prior to the early termination contemplated pursuant to Paragraph 2(a) of the Two Freedom Early Termination Amendment), Tenant's entitlement to the Two Freedom Abatement that was denied shall resume from and thereafter.

(iii) If and to the extent that Tenant does not convert the Abatement provided under this Lease to Two Freedom Abatement pursuant to Section 3.1(b)(ii) above (the "**Remaining Abatement**"), Tenant shall have the right to elect to apply all or any portion of the Remaining Abatement to increase the amount of the Improvement Allowance provided pursuant to **Exhibit B** hereto (the amount of such increase, the "**Additional Allowance**") to be applied pursuant to the terms and conditions of **Exhibit B** hereto, by written notice to Landlord of the amount so elected (the "**Additional Allowance Notice**") not later than March 31, 2021. If Tenant timely provides to Landlord the Additional Allowance Notice, then (A) the amount of the Remaining Abatement automatically shall be decreased by an amount equal to the amount of the Additional Allowance elected by Tenant in the Additional Allowance Notice, and (B) the Improvement Allowance automatically shall be increased by an amount equal to the amount of the Additional Allowance so elected.

3.2 Commencing on the first (1st) day of the second (2nd) Lease Year and on the first day of each and every Lease Year thereafter during the Lease Term, the annual base rent shall be increased by two and one-half percent (2.5%) of the amount of annual base rent payable for the preceding Lease Year (without regard to any abatement or offset).

3.3 All rent shall be paid to Landlord in legal tender of the United States. Until notice of some other designation is given, all rent and all other charges for which provision is herein made shall be paid by remittance to or for the order of Boston Properties Limited Partnership, as agent of Landlord either (i) via the VersaPay ARC, Boston Properties on-line Tenant Portal for which an invite will be sent to Tenant from the VersaPay ARC platform from the email address {redacted} (please contact Landlord at {redacted} with any inquiries respecting VersaPay), (ii) by ACH transfer to Bank of America in Dallas, Texas, Bank Routing Number {redacted} referencing Account Number {redacted}, Account Name of Boston Properties, LP, Tenant's name and the Property address, (iii) by mail to {redacted}, or (iv) to such other address as Landlord may designate from time to time by written notice to Tenant. Until notice of a different email address is provided to Landlord, Tenant's email address for information regarding billings and statements is as follows: {redacted}. If Landlord shall at any time accept rent after it shall become due and payable, such acceptance shall not excuse a delay upon subsequent occasions, or constitute or be construed as a waiver of any of Landlord's rights hereunder. If any sum payable by Tenant under this Lease is paid by check which is returned due to insufficient funds, stop payment order, or otherwise, then: (a) such event shall be treated as a failure to pay such sum when due; and (b) in addition to all other rights and remedies of Landlord hereunder, Landlord shall be entitled (i) to impose a returned check charge of Fifty Dollars ($50.00) to cover Landlord's administrative expenses and overhead for processing, and (ii) after the second (2nd) occurrence of a returned check in any twelve (12) month period or after a third (3rd) occurrence over the Lease Term, to require that all future payments be remitted by wire transfer.

3.4 Landlord and Tenant agree that no rental or other payment for the use or occupancy of the Premises is or shall be based in whole or in part on the net income or profits derived by any person or entity from the Building or the Premises. Tenant further agrees that it will not enter into any sublease, license, concession or other agreement for any use or occupancy of the Premises which provides for a rental or other payment for such use or occupancy based in whole or in part on the net income or profits derived by any person or entity from the Premises so leased, used or occupied. Nothing in the foregoing sentence, however, shall be construed as permitting or constituting Landlord's approval of any sublease, license, concession, or other use or occupancy agreement not otherwise approved by Landlord in accordance with the provisions of Article VII.

ARTICLE IV
ADDITIONAL RENT

4.1 Operating Expenses and Real Estate Taxes.

(a) Commencing on the first anniversary of the Lease Commencement Date and continuing with each calendar year thereafter during the Lease Term, Tenant shall pay Landlord, as additional rent for the Premises, Tenant's proportionate share of the amount by which operating expenses actually incurred by Landlord in connection with the management, operation and ownership of the Building including the Parking Garages (as defined in Article XXIV) ("**Operating Expenses**") during any calendar year falling entirely or partly within the Lease Term exceed a base amount ("**Base Year Operating Expenses**") equal to the actual Operating Expenses incurred by Landlord (subject to the adjustments thereto as are expressly provided for in this Article IV below) in connection with the management, operation and ownership of the Building during the twelve month period ("**Base Year**") commencing January 1, 2021, and ending December 31, 2021. For purposes of this Article IV Tenant's proportionate share of such increases in Operating Expenses shall be that percentage which is equal to a fraction, the numerator of which is the number of square feet of rentable area in the Premises from time to time and the denominator of which is the total number of square feet of rentable area in the Building from time to time, excluding the number of square feet devoted to storage space and parking. It is understood that the number comprising such denominator is subject to change because of changes in the use or configuration of space in the Building or the addition of space to the Building or the deletion of space from the Building or in the amount of space leased by tenants who pay by separate meter for their electrical and/or janitorial, cleaning, or other utilities or services so that Tenant actually pays its fair share of Operating Expenses. Any such change in rentable area shall be determined in accordance with the standard set forth in Section 1.3 of this Lease, and, in any event, that the denominator with respect to Real Estate Taxes (as defined in Section 4.1(c) below) shall be calculated based on the total number of square feet of rentable area in the Building, including portions of the Building occupied by retail tenants but exclusive of the garage and storage areas. Space leased by retail tenants is excluded from the denominator with respect to both (i) rubbish removal, water, electricity and janitorial service exclusively provided to their premises (and expenses for such services to their premises are excluded from Operating Expenses), and (ii) other costs and expenses determined by Landlord to have been incurred in connection with services related to the office portion of the Building (which as of the Effective Date, and subject to adjustment as set forth herein, consists of 427,526 square feet of rentable area). However, space leased by retail tenants is included in the denominator with respect to common area water, electricity and janitorial, and all other categories of expenses included in Operating Expenses that Landlord reasonably determines to have been incurred in connection with both the office portion and the retail portion of the Building. Tenant acknowledges and understands that with respect to certain of the Operating Expenses set forth herein (*e.g.*, insurance) and Real Estate Taxes, Tenant will be paying its proportionate share of increases in Operating Expenses (or Real Estate Taxes) which are attributable to the Building's proportionate share of such expenses or taxes relative to the Complex, with appropriate adjustments to the extent such increases are not attributable to circumstances or conditions present in the Building or otherwise applicable to the Complex as a whole. The specific obligations of Tenant with respect to such increases shall be governed by the remaining sections of this Article IV. Tenant's proportionate share shall increase in the event Tenant expands the Premises. Notwithstanding anything contained herein to the contrary, Base Year Operating Expenses shall not include either (i) the cost of any capital expenditures (as set forth in paragraph 4.1(b)(1)(vi) below) incurred during the Base Year, or (ii) increases due to extraordinary circumstances, including but not limited to, a Force Majeure Event (as defined in Section 25.18), boycotts, conservation surcharges, security concerns, embargoes or shortages.

In addition, Base Year Operating Expenses and Operating Expenses for each subsequent calendar year during the Lease Term shall be adjusted in accordance with Section 4.2 below.

(b) Operating Expenses shall be determined in accordance with generally accepted accounting principles consistently applied from year to year (as such principles are generally applied in the real estate industry), without duplication of any kind, and shall include, without limitation, the costs and expenses described in Subsection (1) below, but shall not include the costs and expenses described in Subsection (2) below. In the event there exists a conflict as to an expense that is specified to be included in Operating Expenses in Subsection (1) below, and is also specified to be excluded from Operating Expenses in Subsection (2) below, the exclusions listed in Subsection (2) below shall prevail and the expenses shall be deemed excluded.

(1) Included costs and expenses (which shall in all cases be net of any discounts, credits, reimbursements and rebates received by Landlord):

(i) Gas, water, sewer, electricity and other utility charges (including surcharges) of every type and nature.

(ii) Insurance premiums paid by Landlord.

(iii) Personnel costs of the Building, including, but not limited to, salaries, wages, fringe benefits and other direct and indirect costs of engineers, superintendents, watchmen, porters, property accountants and any other personnel related to the management, maintenance, repair and operation of the Building ("**Personnel**") (it being expressly understood that to the extent such employees are not assigned exclusively to the Building, then Operating Expenses shall include only the portion of the foregoing costs that Landlord reasonably allocates to the Building).

(iv) Costs of service and maintenance contracts, including, but not limited to, chillers, boilers, controls, elevators, mail chute, windows, access control service, landscaping, snow and ice removal, management fees (subject to Section 4.1(b)(2)(xxxi)), and air and water quality testing.

(v) All other maintenance and repair expenses and supplies which are deducted by Landlord in computing its Federal income tax liability.

(vi) Amortization over the Approved Period (as defined below), with interest at Landlord's cost of financing, or, if the improvement is not financed, at the prime rate reported by the Bank of America on the date of such expenditure, for capital expenditures made by Landlord (A) to reduce operating expenses if and to the extent the annual reduction in Operating Expenses will be equal to or will exceed the annual amortization and financing costs therefor, or (B) to comply with all present and future laws, ordinances (including zoning ordinances and land use requirements), regulations and orders of Reston Town Center, the County of Fairfax, the Town of Reston, the Commonwealth of Virginia, the United States of America and any other governmental or quasi-governmental agency having jurisdiction over the Premises (collectively, "**Legal Requirements**"), which Legal Requirements are first applicable to the Building after the Lease Commencement Date; the "**Approved Period**" shall mean the time period equal to the longest allowable useful life of the improvement permitted under generally accepted accounting principles, except that with respect to an improvement made for the purpose of reducing Operating Expenses, Landlord may reduce such time period to the number of years that it will take to fully amortize the cost of the capital expenditure if the yearly

amortization amount (including interest as aforesaid) is equal to the projected annual savings as reasonably estimated by Landlord.

(vii) Any other costs and expenses reasonably incurred by Landlord in maintaining or operating the Building (including major repairs for maintenance purposes), except as provided in (2) below.

(viii) Real Estate Taxes (as hereinafter defined).

(ix) The costs of any additional services not provided to the Building at the Lease Commencement Date but thereafter provided by Landlord in the prudent management of the Building.

(x) Charges for concierge (if any), access control, janitorial, and cleaning services (including supplies) for operation and maintenance of the Building (including the loading dock serving the Building), the fitness facility (if any) and the roof deck (if any).

(xi) Personnel costs of the regional property manager and regional engineer, even if such persons work off-site, so long as such persons are not part of the corporate office and only if such person's time is reasonably allocable to the Building.

(xii) Costs of maintaining management or engineering offices serving the Building, including, without limitation, the costs of telephone services, office equipment, including upgrades and replacements thereof, and office supplies, but excluding any cost for the initial furnishing of such offices.

(xiii) Accounting expenses reasonably incurred by Landlord in calculating Operating Expenses and legal fees and expenses reasonably incurred by Landlord in connection with proceedings undertaken to reduce Operating Expenses.

(xiv) Complex Common Expenses, hereinafter defined.

(xv) All costs of applying and reporting for the Building or any part thereof to seek or maintain certification under the U.S. EPA's Energy Star® rating system, the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system or a similar system or standard.

(2) Excluded costs and expenses:

(i) Principal or interest on indebtedness, debt amortization or ground rent paid by Landlord in connection with any mortgages, deeds of trust or other financing encumbrances, or ground leases of the Building.

(ii) Capital improvements to the Building other than those expressly permitted in subsection (1)(vi) above.

(iii) Legal, auditing, consulting and professional fees and other costs paid or incurred in connection with financings, refinancings or sales of any interest in Landlord or of Landlord's interest in the Building, or in connection with any ground lease (including, without limitation, recording costs, mortgage recording taxes, title insurance premiums and other similar costs, but excluding those legal, auditing, consulting and professional fees and other costs incurred in connection with the normal and routine maintenance and operation of the Building).

(iv) Legal fees, space planner's fees, architect's fees, leasing and brokerage commissions, advertising and promotional expenditures and any other marketing expenses incurred in connection with the leasing of space in the Building (including new leases, lease amendments, lease terminations and lease renewals).

(v) The cost of any items to the extent to which such cost is reimbursed to Landlord by tenants of the Building (other than pursuant to this Section 4.1), other third parties, or is covered by a warranty to the extent of reimbursement for such coverage.

(vi) Expenditures for any leasehold improvements which are made in connection with the preparation of any portion of the Building for occupancy by any tenant or which are not made generally to or for the benefit of the Building.

(vii) The cost of performing work or furnishing service to or for any tenant other than Tenant, at Landlord's expense, to the extent such work or service is in excess of any work or service Landlord is obligated to provide to Tenant or generally to other tenants in the Building at Landlord's expense.

(viii) The cost of repairs or replacements incurred by reason of fire or other casualty, or condemnation (other than costs not in excess of the deductible on any insurance maintained by Landlord which provides a recovery for such repair or replacement), to the extent Landlord actually receives proceeds of property and casualty insurance policies or condemnation awards or would have received such proceeds had Landlord maintained the insurance required to be maintained by Landlord pursuant to this Lease.

(ix) The cost of acquiring sculptures, paintings or other objects of fine art in the Building.

(x) Bad debt loss, rent loss or reserves for bad debt or rent loss.

(xi) Unfunded contributions to operating expense reserves by other tenants.

(xii) Contributions to charitable or political organizations.

(xiii) Damage and repairs necessitated by the negligence or willful misconduct of Landlord Parties.

(xiv) Fees, costs and expenses incurred by Landlord in connection with or relating to claims against or disputes with tenants of the Building or the negotiations of leases with tenants or prospective tenants, including without limitation legal fees and disbursements.

(xv) Interest, fines or penalties for late payment or violations of Legal Requirements by Landlord, if any, except to the extent incurring such expense caused by a corresponding late payment or violation of a Legal Requirement by Tenant, in which event Tenant shall be responsible for the full amount of such expense.

(xvi) The cost of remediation and removal of "Hazardous Materials" (as defined in Section 6.3) in the Building required by "Environmental Law" (as defined in Section 6.3), provided, however, that the provisions of this clause xvi shall not preclude the inclusion of costs with respect to materials (whether existing at the Building as of the Effective Date or subsequently introduced to the Building) which are not as of the Effective

Date (or as of the date of introduction) deemed to be Hazardous Materials under applicable Environmental Laws but which are subsequently deemed to be Hazardous Materials under applicable Environmental Laws (it being understood and agreed that Tenant shall nonetheless be responsible under Article VI for all costs of remediation and removal of Hazardous Materials to the extent caused by Tenant Parties).

(xvii) Costs of replacements, alterations or improvements necessary to make the Building comply with Legal Requirements in effect and applicable to the Building prior to the Effective Date, except to the extent the need for such replacements, alterations or improvements is caused by Tenant Parties (in which case Tenant shall nonetheless be responsible for such costs in accordance with Section 13.1 of this Lease), provided, however, that the provisions of this clause xvii shall not preclude the inclusion of costs of compliance with Legal Requirements enacted prior to the Effective Date if such compliance is required for the first time by reason of any amendment, modification or reinterpretation of a Legal Requirement which is imposed after the Effective Date.

(xviii) Costs for the original construction and development of the Building (including any "tap fees" or one-time lump sum sewer or water connection fees) and nonrecurring costs for the repair or replacement of any structural portion of the Building made necessary as a result of defects in the original design, workmanship or materials.

(xix) Costs and expenses incurred for the administration of the entity which constitutes Landlord, as the same are distinguished from the costs of operation, management, maintenance and repair of the Building, including, without limitation, entity accounting and legal matters.

(xx) Salaries and all other compensation (including fringe benefits) of partners, officers and executives above the grade of regional property manager or regional engineer.

(xxi) The wages and benefits of any employee who does not devote substantially all of his or her employed time to the Building unless such wages and benefits are reasonably allocated to the Building.

(xxii) Except as may be otherwise expressly provided in this Lease with respect to specific items, the cost of any services or materials provided by any party related to Landlord, to the extent such cost exceeds the reasonable cost for such services or materials in Class A office buildings in the Market Area absent such relationship.

(xxiii) Depreciation for the Building.

(xxiv) Costs incurred due to the intentional violation by Landlord of any Legal Requirement that would not have been incurred but for such violation by Landlord or costs incurred as a result of Landlord's default of the terms or conditions of this Lease.

(xxv) Costs, fines, interest, penalties, legal fees or costs of litigation incurred due to the late payments of taxes, utility bills and other costs incurred by Landlord's failure to make such payments when due (unless Tenant shall have failed to timely pay to Landlord Tenant's proportionate share thereof and such failure caused Landlord to be delinquent in the payment of the same).

(xxvi) Bad debt losses and reserves for such losses.

(xxvii) Expenses directly resulting from (a) defending any lawsuit with any prospective or actual purchaser, ground lessor or mortgagee; or (b) fees paid in connection with disputes with other tenants, except to the extent such expenses result from acts by or on behalf of Tenant.

(xxviii) Costs of overtime or other expense paid by Landlord due to Landlord's defaults under any Legal Requirement or under any contract or incurred while performing work, the cost of which is expressly provided in this Lease to be borne at Landlord's expense.

(xxix) After hours or overtime HVAC costs or electricity costs if chargeable or charged separately to other Building tenants.

(xxx) Costs or fees relating to the defense of Landlord's title or interest in the real estate containing the Building, or any part thereof.

(xxxi) Property management fees in excess of the actual property management fees stipulated between the Landlord and the property manager for the Building, provided that Landlord shall not be permitted to pass-through a management fee that exceeds three percent (3%) of gross rental receipts.

(xxxii) Costs directly resulting from the gross negligence or willful misconduct of any Landlord Parties.

(c) "**Real Estate Taxes**" shall mean (i) all real estate taxes and other impositions, including general and special assessments, property owner association fees, Business, Professional and Occupational license fees and other similar taxes and assessments if any, which are imposed upon Landlord or assessed against the Building or the Land upon which the Building is situated; (ii) any other present or future taxes or governmental charges that are imposed upon Landlord or assessed against the Building or the Land, including, but not limited to, any tax levied on or measured by the rents payable by tenants of the Building, which are in the nature of, or in substitution for, real estate taxes; (iii) all taxes which are imposed upon Landlord, and which are assessed against the value of any improvements to the Premises made by Tenant or any machinery, equipment, fixtures or other personal property of Tenant used therein; (iv) expenses (including reasonable attorneys' fees) incurred in reviewing, protesting, negotiating or seeking (whether formally or informally) a reduction or abatement of Real Estate Taxes; (v) all taxes, or similar charges, imposed upon Landlord or the Building, or the Land, in connection with the Washington DC region Metrorail system and/or as the result of any transportation district created by Fairfax County or any other governmental or quasi-governmental entity; and (vi) the Building's share of all costs, expenses, charges or other assessments under any covenants, conditions, restrictions, easements or zoning conditions affecting the Land from the Reston Town Center Joint Committee or other authority or entity or any successor thereto, including, without limitation, the Urban Core assessment. Real Estate Taxes shall not include any income taxes, excess profits taxes, excise taxes, franchise taxes, estate taxes, succession taxes and transfer taxes, except to the extent any of such taxes are in the nature of or are in substitution for or recharacterization or replacement of Real Estate Taxes. If Landlord contests the Real Estate Taxes for any calendar year, and such contest results in an increase in Real Estate Taxes for such calendar year, then Landlord shall have the right to bill Tenant for prior underpayments of Real Estate Taxes thereby resulting or, if such increase relates to the Base Year, Real Estate Taxes for the Base Year shall be increased to reflect the same (and Landlord shall credit Tenant for any overpayment of Real Estate Taxes made prior to such increase in the Base Year Real Estate Taxes or if the Lease Term has expired, Landlord shall refund such amount to Tenant). If Landlord receives a refund of any portion of Real Estate Taxes that were included in the Real Estate Taxes paid by Tenant, then Landlord shall credit against the

next estimated payment or payments due under this Article IV an amount equal to Tenant's pro rata share of the refunded taxes, less any expenses that Landlord incurred to obtain the refund or if the Lease Term has expired, Landlord shall refund such amount to Tenant or, if such decrease relates to the Base Year, Real Estate Taxes for the Base Year shall be decreased to reflect the same (and Tenant shall pay to Landlord, within 30 days after receipt of an invoice therefor, any underpayment of Real Estate Taxes with respect to the period prior to such decrease in the Base Year Real Estate Taxes). If the Building is not fully assessed for purposes of Real Estate Taxes, then Real Estate Taxes for the applicable period (including without limitation the Base Year or any portion thereof) shall be deemed to include all additional amounts, as reasonably estimated by Landlord, that would have been applicable during such period if the Building had been fully assessed for purposes of Real Estate Taxes.

(d) "**Complex Common Expenses**" means the Building's equitable share of common costs and expenses (as opposed to those costs and expenses related exclusively to the Building) reasonably allocable to two or more buildings (including parking facilities) operated and managed in conjunction with the Building by Landlord and/or its affiliates in the Reston Urban Core District, but only if and to the extent such costs and expenses are otherwise includable without duplication as Operating Expenses as that term is used herein. The methodologies for inclusion and exclusion in Complex Common Expenses shall by consistently applied from year to year.

(e) Notwithstanding anything to the contrary in this Article IV, for purposes of determining Tenant's proportionate share of increases in Operating Expenses under this Article IV during the initial Lease Term only, the amount of any increases in Controllable Operating Expenses (as defined below) for each calendar year during the initial Lease Term, commencing with the calendar year immediately following the calendar year in which the Lease Commencement Date occurs (the "**First Adjustment Year**"), shall not exceed the Controllable Expenses Cap (as defined below). For purposes hereof, "**Controllable Expenses Cap**" shall mean the actual expenses for Controllable Expenses in calendar year 2021 (annualized and adjusted for a fully operational building without warranties), and, for each calendar year thereafter, such cap shall increase by six percent (6%) over the Controllable Expenses Cap applicable to the immediately preceding calendar year. For the purposes of this Section, "**Controllable Operating Expenses**" are all Operating Expenses other than Operating Expenses which are attributable to (i) Real Estate Taxes, (ii) utilities, (iii) snow removal, (iv) insurance, (v) janitorial services, (vi) security and access control services, (vii) labor and personnel costs, and (viii) any other costs and expenses that are outside Landlord's reasonable control.

4.2 In the event the average occupancy rate for the entire Building shall be less than one hundred percent (100%) or if any tenant is paying separately for electricity or other utilities or services for any calendar year, including the Base Year, for purposes of calculating the additional rent payable by Tenant pursuant to this Article IV for each calendar year, the Operating Expenses for such calendar year shall be increased by the amount of additional costs and expenses that Landlord reasonably estimates would have been incurred if the average occupancy rate for the entire Building had been one hundred percent (100%) and as if no tenants had separately paid for electricity or other utilities and services for such calendar year, including the Base Year. It is the intent of this provision to permit Landlord to recover from Tenant its proportionate share of Operating Expenses attributable to occupied space in the Building even though the aggregate of such expenses shall have been reduced as a result of vacancies in the Building. Notwithstanding the foregoing, Landlord shall not recover more than one hundred percent (100%) of the Operating Expenses (including Real Estate Taxes) actually incurred by Landlord during any calendar year. Landlord shall use its best efforts in good faith to effect an equitable proration of bills for services rendered by Landlord or an affiliate of Landlord. If a new service is provided to the Building after the Base Year (which service should have been provided by Landlord during the Base Year in its reasonable operation of the Building), the first full year's

Operating Expenses for such service shall be added to the Operating Expenses for the Base Year commencing with the first full calendar year such that Operating Expense is incurred, so that Tenant shall only be required to pay subsequent increases in the such Operating Expense.

4.3 Commencing in January 2022 and not more than ninety (90) days following the beginning of each calendar year thereafter during the Lease Term, Landlord shall submit to Tenant a statement setting forth Landlord's reasonable estimate of (a) the amount by which the Operating Expenses that are expected to be incurred during such calendar year will exceed the Base Year, and (b) the computation of Tenant's proportionate share of such anticipated increases in Operating Expenses. Except as otherwise provided herein, Tenant shall pay to Landlord on the first day of each month following receipt of such statement during such calendar year an amount equal to Tenant's proportionate share of the anticipated increases in such Operating Expenses multiplied by a fraction, the numerator of which is 1, and the denominator of which is the number of months during such calendar year which fall entirely or partly within the Lease Term and follow the date of the foregoing statement. Within approximately 120 days after the expiration of each calendar year falling entirely or partly within the Lease Term, Landlord shall submit to Tenant a statement showing (i) the actual amount of Base Year Operating Expenses; (ii) the actual Operating Expenses paid or incurred by Landlord during the immediately preceding calendar year, (iii) a computation of Tenant's proportionate share of the amount by which the Operating Expenses actually incurred during the preceding calendar year exceeded the Base Year Operating Expenses, and (iv) the aggregate amount of the estimated payments made by Tenant on account thereof. If the aggregate amount of such estimated payments exceeds Tenant's actual liability for such increases, then Tenant shall deduct the net overpayment from its next estimated payment or payments due under this Article IV for the then current year, or, in the case of the reconciliation for the calendar year in which the Lease Term expires, Landlord shall pay Tenant the net overpayment (after deducting therefrom any amounts then due from Tenant to Landlord) within thirty (30) days following Landlord's submission of the statement showing the actual Operating Expenses paid or incurred by Landlord. If Tenant's actual liability for such amounts exceeds the estimated payments made by Tenant on account thereof, then Tenant shall pay to Landlord the total amount of such deficiency as additional rent due hereunder in accordance with Section 25.16 below.

4.4 In the event the Lease Term begins or expires on a day other than the first and last day of a calendar year, respectively, then Tenant's obligation for increases in Operating Expenses for such partial calendar year shall be an amount equal to the product of (i) Tenant's Proportionate Share of the increase in Operating Expenses for the full calendar year, multiplied by (ii) a fraction, the numerator of which is the number of days during such calendar year falling within the Lease Term, and the denominator of which is 365.

4.5 All payments required to be made by Tenant pursuant to this Article IV shall be paid to Landlord, without setoff or deduction, in the same manner as annual base rent is payable pursuant to Article III hereof.

4.6 Tenant's liability for its proportionate share of Operating Expenses described in Section 4.1 hereof for the last calendar year falling entirely or partly within the Lease Term shall survive the expiration of the Lease Term; provided, however, that in the event Landlord shall fail to invoice Tenant for Tenant's Proportionate Share of Operating Expenses within two (2) years immediately succeeding the calendar year to which the invoice relates, then Landlord shall be deemed to have waived its right to collect the same. Similarly, Landlord's obligation to refund to Tenant the excess, if any, of the amount of Tenant's estimated payments on account of such Operating Expenses for such last calendar year over Tenant's actual liability therefor shall survive the expiration of the Lease Term; provided, however, that this sentence shall not apply to Real Estate Taxes provided the statement regarding Real Estate Taxes is reserved by Tenant within one (1) year following Landlord's receipt thereof.

4.7 Subject to the provisions of this Section and provided that no Event of Default of Tenant exists, Tenant shall have the right to examine the correctness of the Landlord's Operating Expense statement or any item contained therein:

(a) Any request for examination in respect of any calendar year may be made by notice from Tenant to Landlord no more than ninety (90) days after the date (the **"Operating Expense Statement Date"**) Landlord provides Tenant a statement of the actual amount of the Operating Expenses in respect of such calendar year and only if Tenant shall have fully paid such amount. Any examination must be completed and the results communicated to Landlord no more than 180 days after the Operating Expense Statement Date; provided, however, Tenant's right to exercise its audit rights with respect to the Base Year's Operating Expenses and Real Estate Taxes shall continue throughout the Term of the Lease.

(b) Tenant hereby acknowledges and agrees that Tenant's sole right to contest the Operating Expense statement shall be as expressly set forth in this Section. If Tenant shall fail to timely exercise Tenant's right to inspect Landlord's books and records as provided in this Section, or if Tenant shall fail to timely communicate to Landlord the results of Tenant's examination as provided in this Section, with respect to any calendar year Landlord's statement of Operating Expenses shall be conclusive and binding on Tenant, except with respect to the Base Year and any fraud or intentional misrepresentation by Landlord.

(c) Landlord's books and records pertaining to the Operating Expenses for the calendar year included in Landlord's statement shall be made available to Tenant within a reasonable time after Landlord timely receives the notice from Tenant to make such examination pursuant to this Section, either electronically or during normal business hours at the offices where Landlord keeps such books and records or at another location, as reasonably determined by Landlord.

(d) Tenant shall have the right to make such examination no more than once in respect of any calendar year in which Landlord has given Tenant a statement of the Operating Expenses.

(e) Such examination may be made only by a qualified employee of Tenant or a qualified independent certified public accounting or auditing firm reasonably approved by Landlord.

(f) As a condition to performing any such examination, Tenant and its examiners shall be required to execute and deliver to Landlord an agreement, in form reasonably acceptable to Landlord, agreeing to keep confidential any information which it discovers about Landlord or the Building in connection with such examination.

(g) No subtenant shall have any right to conduct any such examination and no assignee, with the exception of Affiliates of Tenant, may conduct any such examination with respect to any period during which the assignee, with the exception of Affiliates of Tenant, was not in possession of the Premises**.**

(h) All costs and expenses of any such examination shall be paid by Tenant, except if such examination shows that the amount of the Operating Expenses payable by Tenant was overstated by more than five percent (5%), Landlord shall promptly reimburse Tenant for the reasonable out-of-pocket costs and expenses incurred by Tenant in such examination. Tenant shall receive a credit against the next installment(s) of Base Rent for any overpayments by Tenant.

(i) If as a result of such examination Landlord and Tenant agree that the amounts paid by Tenant to Landlord on account of such the Operating Expenses exceeded the amounts to which Landlord was entitled hereunder, or that Tenant is entitled to a credit with respect to any such amount, then after at least ten (10) days prior written notice to Landlord, for a period of sixty (60) days following the completion of Tenant's examination, Tenant may also examine in the same manner Landlord's books and records for the previous two (2) calendar years and the Base Year's Operating Expenses.

ARTICLE V
SECURITY DEPOSIT

5.1 (a) On or before the Lease Commencement Date, Tenant shall post a Letter of Credit (as defined below) in an amount equal to $712,300.75, as a security deposit (hereinafter referred to as "**security deposit**" or "**Security Deposit**"). Notwithstanding the foregoing, provided that Tenant surrenders and vacates the premises demised under the Two Freedom Lease on or before the Early Expiration Date described therein, Landlord shall cause the Two Freedom Owner to transfer the Letter of Credit Security Deposit being held by the Two Freedom Owner under the Two Freedom Lease to Landlord, as the security deposit required under this Article V. In such event, Landlord shall cause such transfer to be effected promptly following Tenant's timely surrender of the Two Freedom Premises to the Two Freedom Owner, in satisfaction of the requirement contained in this Section 5.1(a) to post the security deposit on or before the Lease Commencement Date; provided, however, that Tenant shall deliver to Landlord, within thirty (30) days following the Lease Commencement Date, an amendment to such Letter of Credit extending the outside expiration date thereof to April 30, 2032 (i.e., the date that is 60 days following the 129th full calendar month of the Lease Term, based on an anticipated Lease Commencement Date of June 1, 2021). Notwithstanding the foregoing, if (i) the Two Freedom Owner shall have drawn or applied any of the proceeds of the Letter of Credit in accordance with the Two Freedom Lease on or prior to the Early Expiration Date set forth therein, or (ii) on such Early Expiration Date there exists a monetary Event of Default by Tenant under the Two Freedom Lease or Tenant fails to surrender and vacate the premises demised under the Two Freedom Lease on or before such Early Expiration Date, the Two Freedom Owner shall have the right to apply the Security Deposit in accordance with the terms of the Two Freedom Lease prior to transferring the remaining balance (if any) of the Security Deposit to Landlord pursuant to this Section 5.1(a), and in such event, Landlord shall cause the Two Freedom Owner to transfer the remaining balance (if any) of the Letter of Credit Security Deposit under the Two Freedom Lease to Landlord and Tenant shall be required to deliver a new Letter of Credit security deposit under this Lease in accordance with the terms of this Article V for the difference between the amount of the security deposit required above and the remaining balance of the Letter of Credit Security Deposit under the Two Freedom Lease, if any, so transferred to Landlord. Among other things, Landlord has assigned (or intends to assign) to the holder of the mortgage now or hereafter encumbering the Building, all of Landlord's interest in this Lease, including, without limitation, the Security Deposit.

(b) The Security Deposit shall be security for the performance by Tenant of all of Tenant's obligations, covenants, conditions and agreements under this Lease. Within forty-five (45) days after the expiration of the Lease Term, provided Tenant has vacated the Premises and an Event of Default has not occurred and is continuing under this Lease, Landlord shall return the Security Deposit to Tenant, less such portion thereof as Landlord shall have properly appropriated after written notice to Tenant to satisfy any Event of Default under this Lease and such portion as Landlord reasonably believes will be payable by Tenant in connection with the reconciliation of Operating Expenses for the calendar year in which the Lease Term expires. If there is an Event of Default by Tenant under this Lease, Landlord shall have the right, but not the obligation, to use, apply or retain all or any portion of the Security Deposit, which value is equivalent to (i) the payment of any annual base rent or additional rent or any other sum due

under this Lease, (ii) the payment of any amount Landlord may reasonably spend or become obligated to spend as a result of the Event of Default, (iii) for the compensation of Landlord for any losses incurred by reason of the Event of Default, or (iv) any damage or deficiency arising in connection with the reletting of the Premises. If any portion of the Security Deposit is so used or applied, within five (5) business days after Tenant's receipt of written notice of such use or application, Tenant shall restore the Security Deposit by providing a replacement Letter of Credit, an additional Letter of Credit or an amendment to the initial Letter of Credit, as the case may be, such that Landlord is holding one or more Letters of Credit in the aggregate amount of the Security Deposit required hereunder. Tenant's failure to restore the Letter of Credit shall constitute an Event of Default under this Lease. Tenant hereby authorizes Landlord to deposit the Security Deposit with the holder of any mortgage now or hereafter encumbering the Building if and to the extent required by said holder; provided, however, that such holder shall provide written acknowledgement of the receipt of such Security Deposit and hold the Security Deposit subject to Tenant's rights with respect to the Security Deposit set forth herein.

(c) The Security Deposit shall be in the form of one or more unconditional, irrevocable letters of credit (each, a "**Letter of Credit**"), subject to the terms and conditions set forth herein. Such Letter of Credit shall (i) be in the form attached hereto as Exhibit F or otherwise in form and substance reasonably satisfactory to Landlord; (ii) be at all times in the amount of the Security Deposit, (iii) permit multiple draws; (iv) be issued by a commercial bank reasonably acceptable to Landlord from time to time; (v) be made payable to, and expressly transferable and assignable by, the owner from time to time of the Building or, at Landlord's option, the holder of any mortgage (which transfer/assignment shall be conditioned only upon the execution of a written document in connection therewith; provided, however, that in the event the issuing bank of the Letter of Credit charges a fee for a transfer and/or assignment, any and all such fees shall be payable by Tenant not more than once during the Lease Term); (vi) be payable at sight or by facsimile upon presentation of a simple sight draft to the issuing bank of the Letter of Credit; (vii) have a term not less than one (1) year; and (viii) be at least thirty (30) days prior to the then-current expiration date of such Letter of Credit, automatically renewed (or automatically and unconditionally extended) from time to time through the sixtieth (60^{th}) day after the expiration of the Lease Term. Notwithstanding anything in this Lease to the contrary, any cure or grace periods set forth in this Lease shall not apply to any of the foregoing, and, specifically, if Tenant fails to timely comply with the requirements of Subsection (v) and/or (viii) above, then Landlord shall have the right to immediately draw upon the Letter of Credit without prior notice to Tenant and apply the proceeds to the Security Deposit. Each Letter of Credit shall be issued by and drawn on a bank reasonably approved by Landlord and at a minimum having a long-term issuer credit rating from Standard & Poor's Professional Rating Service of A or a comparable rating from Moody's Professional Rating Service, and the Letter of Credit shall be otherwise acceptable to Landlord in its sole and absolute discretion. If the issuer's credit rating is reduced below A (or equivalent) by Standard & Poor's Corporation or by Moody's Professional Rating Service, or if the financial condition of such issuer changes in any other materially adverse way, then Landlord shall have the right to require that Tenant obtain from a different issuer a substitute letter of credit that complies in all respects with the requirements of this Article, and Tenant's failure to obtain such substitute letter of credit within ten (10) business days following receipt of Landlord's written demand therefor (with no other notice or cure or grace period being applicable thereto, notwithstanding anything in this Lease to the contrary) shall entitle Landlord to immediately draw upon the then existing Letter of Credit in whole or in part, with notice to Tenant. Notwithstanding the foregoing, Landlord hereby approves of Silicon Valley Bank as the issuing bank for the Letter of Credit. Notwithstanding anything herein to the contrary, if Tenant is unable to obtain a substitute Letter of Credit within then (10) days, then Tenant may post cash as the Security Deposit until Tenant is able to obtain the substitute Letter of Credit. In the event the issuer of any Letter of Credit held by Landlord is placed into receivership or conservatorship by the Federal Deposit Insurance Corporation or any successor or similar entity, then, effective as of the date Tenant receives notice of such receivership or

conservatorship occurs, said Letter of Credit shall be deemed to not meet the requirements of this Section, and, within ten (10) days following Tenant's receipt of written notice from Landlord thereof, Tenant shall replace such Letter of Credit with other collateral acceptable to Landlord in its sole and absolute discretion (and Tenant's failure to do so shall, notwithstanding anything in this Lease to the contrary, constitute an Event of Default for which there shall be no notice or grace or cure periods being applicable thereto other than the aforesaid ten (10) day period). Notwithstanding anything herein to the contrary, if Tenant is unable to obtain a substitute Letter of Credit within ten (10) days, then Tenant may post cash as the Security Deposit until Tenant is able to obtain the substitute Letter of Credit. Tenant shall be responsible for the payment of any and all reasonable and actual third party costs incurred by Landlord in connection with the replacement Letter of Credit (including without limitation Landlord's reasonable attorneys' fees), which replacement is required pursuant to the foregoing sentence or is otherwise requested by Tenant. Any failure or refusal of the issuer to honor the Letter of Credit shall be at Tenant's sole risk and shall not relieve Tenant of its obligations hereunder with respect to the Security Deposit.

(d) Provided that (i) prior to and as of the applicable Reduction Date (as defined below), no monetary default beyond any applicable grace or cure period on the part of Tenant under this Lease shall have occurred or then be in existence and (ii) as of the most recent full calendar year prior to the applicable Reduction Date, Tenant yields at least $620 million in gross revenue as reflected in audited financial statements provided to Landlord, Tenant shall have the right with respect to each Reduction Date to reduce the security deposit by the amount set forth below with respect to such Reduction Date:

Reduction Date	**Security Deposit Reduction Amount**
End of the Third Lease Year	$237,433.58
End of the Sixth Lease Year	$237,433.58*

*If Tenant does not satisfy the conditions set forth above with respect to the first Reduction Date and therefore does not have the right to, and does not, reduce the security deposit by the amount set forth above with respect to the first Reduction Date, but Tenant does satisfy the conditions set forth above with respect to the second Reduction Date, Tenant shall have the right with respect to the second Reduction Date to reduce the security deposit by $474,867.16 with respect to the second Reduction Date (in lieu of the amount set forth above).

If all of the aforesaid conditions are met, upon Tenant's written request, Landlord shall notify the issuer of the Letter of Credit that the Letter of Credit may be reduced in the amount of the reduction so authorized, and the security deposit shall be so reduced in accordance with this Section 5.1(d). Such reduction shall occur by means of delivery by Tenant to Landlord of an amendment to the Letter of Credit reducing the amount thereof as directed by Landlord, or a substitute Letter of Credit in such amount and in strict conformity with the terms of this Article V, in which latter event, the original Letter of Credit will be returned to Tenant. Notwithstanding anything contained herein to the contrary, in no event shall the Letter of Credit be reduced unless the issuing bank receives prior written notice from Landlord, authorizing a reduction by a certain amount (it being understood that in no event shall the reduction exceed the amount so authorized by Landlord). Furthermore, and notwithstanding anything contained herein to the contrary, if an Event of Default has occurred, then there shall occur no further reduction in the security deposit.

5.2 In the event of the sale or transfer of Landlord's interest in the Building, Landlord shall have the right, at no cost or expense to Tenant, to transfer the Security Deposit to the purchaser or assignee. If Landlord transfers the Security Deposit to a purchaser or assignee, upon written acknowledgement from such purchaser or assignee of the receipt thereof, Tenant shall

look only to such purchaser or assignee for the return of the Security Deposit, and Landlord shall thereupon be released from all liability to Tenant for the return of the Security Deposit. Tenant shall, at Tenant's sole expense, within ten (10) business days after receipt of Landlord's written request therefor, have the Letter of Credit amended or reissued by the issuing bank to indicate the new beneficiary at Landlord's sole cost and expense.

5.3 Tenant hereby acknowledges that Tenant will not look to the holder of any mortgage now or hereafter encumbering the Building for return of the Security Deposit if such holder, or its successors or assigns, shall succeed to the ownership of the Building, whether by foreclosure or deed in lieu thereof, except if and to the extent the Security Deposit is actually transferred to such holder.

ARTICLE VI
USE OF PREMISES

6.1 Tenant shall use and occupy the Premises solely for general office purposes and ancillary uses and for no other use or purpose. Tenant shall not use or occupy the Premises for any unlawful purpose or in any manner that will constitute waste, nuisance or unreasonable annoyance to Landlord or other tenants of the Building. Tenant shall comply with all Legal Requirements concerning the use or occupancy of the Premises by Tenant (or any Invitee) or condition of the Premises and all machinery, equipment and furnishings therein installed by Tenant (or any Invitee) and concerning the use of the common areas of the Building by Tenant (or any Invitee), including, but not limited to applicable Environmental Law (as defined in Section 6.3), the Americans with Disabilities Act and regulations promulgated from time to time thereunder. Tenant's compliance with Legal Requirements shall include, but not be limited to, permitting employees, agents or contractors of any governmental or quasi-governmental agency access to the Premises in connection with public safety issues or any Legal Requirement. If any Legal Requirements require an occupancy or use permit, license or other authorization for the Premises or the operation of the business conducted therein, then Tenant shall obtain and keep current such permit, license or authorization at Tenant's expense and shall promptly deliver a copy thereof to Landlord. It is expressly understood that if any change in the use of the Premises by Tenant, or any alterations to the Premises by Tenant, or any future Legal Requirements require a new or additional permit from, or approval by, any governmental agency having jurisdiction over the Building, such permit or approval shall be obtained by Tenant on its behalf and at its sole expense. Further, Tenant shall comply with all Legal Requirements which shall impose a duty on Landlord or Tenant relating to or as a result of the use or occupancy of the Premises. Tenant shall pay all fines, penalties and damages that may arise out of or be imposed on Landlord or Tenant because of Tenant's or an Invitee's (as defined in Section 8.2) failure to comply with applicable Legal Requirements or the provisions of this Lease.

6.2 Tenant shall pay any business, rent or other taxes that are now or hereafter levied upon Tenant's use or occupancy of the Premises, the conduct of Tenant's business at the Premises, or Tenant's equipment, fixtures or personal property. In the event that any such taxes are enacted, changed or altered so that any of such taxes are levied against Landlord or the mode of collection of such taxes is changed so that Landlord is responsible for collection or payment of such taxes, Tenant shall pay any and all such taxes to Landlord within thirty (30) days following receipt of written demand from Landlord.

6.3 Tenant shall not cause or permit any Hazardous Materials (as defined below) to be generated, used, released, stored, disposed, or abandoned in, on, under or about the Premises, Building, or the Land provided that Tenant may use and store in the Premises such quantities of (i) standard cleaning and office materials as may be reasonably necessary for Tenant to conduct normal general office use operations and (ii) standard computer repair, evaluation, and maintenance materials (such as e.g. solder, flux, glues, cleaning agents, and similar materials

used for evaluation of computer and electronic components) in an area of 150 square feet or less, in quantities reasonably commensurate with operations of that size and Tenant's use of the Premises, but only to the extent that such materials are used, stored, and disposed by Tenant in compliance with Environmental Law. Except to the extent any Hazardous Materials are present in or about the Premises as a result of the acts of Landlord, its agents, employees or contractors, at the expiration or earlier termination of this Lease, Tenant shall surrender the Premises to Landlord free of Hazardous Materials and in compliance with all Environmental Laws. "**Hazardous Materials**" means any of the following and any substance or material that contains any of the following: (a) asbestos, asbestos containing materials, and presumed asbestos containing materials; (b) oils, petroleum, petroleum products and by-products, drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal resources; (c) polychlorinated biphenyls, urea formaldehyde, radon gas, radioactive materials (including any source, special nuclear, or byproduct material), medical waste, chlorofluorocarbons, lead or lead-based products, and any other substance whose presence could be detrimental to the Premises, Building, or the Land or to health or the environment and (d) any substance that is then defined or listed in, or otherwise classified pursuant to, any Environmental Law or any other applicable Legal Requirements as a "hazardous substance," "hazardous material," "hazardous waste," "infectious waste," "toxic substance," "toxic pollutant," or any other formulation intended to define, list, or classify substances by reason of deleterious properties such as ignitability, corrosivity, reactivity, carcinogenicity, toxicity, and reproductive toxicity. "**Environmental Law**" means any present and future law and any amendments thereto (whether common law, statute, rule, order, regulation or otherwise), permits, directives, and other requirements of governmental authorities applicable to the Premises, the Building or the Land and relating to the environment, environmental conditions, health, safety, or to any Hazardous Material, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq., the Resource Conservation and Recovery Act of 1976, 42 U.S.C. § 6901 et seq., the Hazardous Materials Transportation Act, 49 U.S.C. § 5101 et seq., the Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq., the Clean Air Act, 42 U.S.C. § 7401 et seq., the Toxic Substances Control Act, 15 U.S.C. § 2601 et seq., the Safe Drinking Water Act, 42 U.S.C. § 300f et seq., the Emergency Planning and Community Right-To-Know Act, 42 U.S.C. § 1100 et seq., the Occupational Safety and Health Act, 29 U.S.C. § 651 et seq., any so-called "Super Fund" or "Super Lien" law, any Legal Requirements requiring the filing of reports or notices relating to Hazardous Materials, and any similar state and local laws, all amendments thereto, and all regulations, orders, decisions, and decrees now or hereafter promulgated thereunder concerning the environment, industrial hygiene or public health or safety.

6.4 (a) Notwithstanding the expiration or early termination of this Lease, and except to the extent caused by the acts of Landlord, its agents, employees or contractors or anyone acting through or on behalf of Landlord, Tenant shall release, indemnify and hold harmless Landlord, its affiliates, employees, agents and contractors, in accordance with the applicable terms of Section 13.1 below, from and against any damage, injury, loss, liability, violation, charge, demand or claim (including reasonable attorneys' fees, consultants' fees, and any costs of litigation) based on, arising out of, or related to: (a) the actual or alleged release, presence, removal, or failure to remove, of Hazardous Materials generated, used, released, stored, disposed, or abandoned by Tenant or its employees, agents or contractors, in, on, under or about the Premises, the Building, or the Land whether before or after the Effective Date, (b) any violation of Environmental Law by Tenant or its employees, agents or contractors with respect to the Premises, Building or Land, or (c) any investigation, assessment, removal, cleanup, abatement, or other corrective action taken with respect to the use or occupancy of the Premises by Tenant or its employees, agents or contractors. In addition, Tenant shall give Landlord immediate verbal and follow-up written notice of any actual or threatened Environmental Default, which Environmental Default Tenant shall cure in compliance with all Environmental Law and to the satisfaction of Landlord. An "**Environmental Default**" means any of the

following by Tenant or its employees, agents or contractors relating to the Premises, the Building or the Land: (x) a violation of Environmental Law; (y) a release, spill or discharge of Hazardous Materials whether or not required to be reported under Environmental Law; or (z) an environmental condition requiring responsive action, whether or not the condition presents an emergency. Upon any Environmental Default, in addition to all other rights available to Landlord under this Lease, at law or in equity, Landlord shall have the right but not the obligation to immediately enter the Premises, to supervise and direct actions taken by Tenant to address the Environmental Default, and, if Tenant fails to promptly address same to Landlord's satisfaction, to perform, at Tenant's sole cost and expense, any action Landlord deems necessary to address same. If any lender or governmental agency shall require an assessment, testing or other action to ascertain whether an Environmental Default is pending or threatened, then Tenant shall pay the reasonable costs therefor as additional rent. Within ten (10) business days following receipt of a written request therefore, Tenant shall execute commercially reasonable forms, affidavits, representations and similar documents concerning Tenant's best knowledge and belief regarding compliance with Environmental Law and the presence, use, storage, and disposal of Hazardous Materials in, on, under or from the Premises, the Building and the Land by Tenant.

(b) In the event a notice of violation of Environmental Law is issued to Landlord related to the Premises, Building, or the Land, then Landlord shall promptly notify Tenant and, at its sole expense, shall take the steps necessary to resolve such violation, except to the extent that the violation is caused by Tenant or an Invitee or to the extent the violation is the responsibility of Tenant under this Article VI. In taking such action, Landlord shall use its reasonable efforts not to materially interfere with the conduct of Tenant's business; provided, however, that Landlord may remove, at Tenant's expense, any Hazardous Materials from the Premises which Tenant, its employees, agents, subcontractors or subtenants shall have introduced or otherwise brought in, on or about the Premises.

ARTICLE VII
ASSIGNMENT AND SUBLETTING

7.1 Assignments.

(a) Tenant shall not have the right to assign (in whole or in part) this Lease or its interest in this Lease if Tenant is subject to an Event of Default under this Lease or without the prior written consent of Landlord, which shall not be unreasonably withheld, conditioned or delayed. Without limiting any other instances in which it may not be unreasonable for Landlord to withhold its consent to an assignment, it shall not be unreasonable for Landlord to withhold its consent to an assignment for any of the reasons set forth in Section 7.2 below. The following transactions will be deemed assignments for purposes of this Section 7.1 and will require Landlord's prior written consent in accordance with and subject to the provisions of this Section 7.1 and the other applicable provisions of this Article VII: (i) an assignment by operation of law; (ii) an imposition (whether or not consensual) of a lien, mortgage, or other encumbrance upon Tenant's interest in this Lease; (iii) if Tenant is a partnership or a limited liability company, a withdrawal or change, whether voluntary, involuntary or by operation of law, of partners or members owning, individually or collectively, a controlling interest in Tenant (occurring in one transaction or in a series of related transactions); and (iv) if Tenant is a general partnership, conversion of Tenant from a general partnership to a limited liability partnership. Any attempted assignment of this Lease or tenant's interest in this Lease without Landlord's prior written consent shall constitute a default under this Lease. If Tenant is a corporation, any merger, consolidation or other reorganization of Tenant, or the sale or transfer of a controlling interest of the capital stock of Tenant (occurring in one transaction or in a series of related transactions), shall be deemed an assignment, unless (A) Tenant's stock is traded through a national or regional stock exchange, or (B) (x) Tenant provides Landlord reasonable prior written notice of such merger, consolidation or other reorganization (provided Landlord agrees to hold such

information subject to customary confidentiality conditions) unless such disclosure would be prohibited by securities laws and regulations (in which case, Tenant shall provide Landlord written notice thereof as soon as would be permitted by securities laws and regulations), and (y) the financial standing or credit rating of Tenant (or, if Tenant no longer exists after the assignment, the successor entity resulting from the merger, consolidation or other corporate reorganization of Tenant) following such transaction is such that Tenant (or such successor entity) can reasonably be expected to meet the financial obligations of this Lease, as reasonably determined by Landlord based on Landlord's then-current underwriting criteria.

(b) In the event of any assignment of this Lease, Tenant shall remain fully liable as a primary obligor and principal for Tenant's obligations under this Lease, including, without limitation, the payment of all rent and other sums or charges required hereunder. The limitations in this Section 7.1 shall be deemed to apply to any subtenant(s), assignee(s) and guarantors(s) of this Lease.

7.2 Subleases.

(a) Except as otherwise provided herein, Tenant shall not have the right to sublease (which term, as used herein, shall include any type of subrental arrangement and any type of license to occupy) all or any part of the Premises without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed. Without limiting the other instances in which it may not be unreasonable for Landlord to withhold its consent to a sublease, it shall not be unreasonable for Landlord to withhold its consent in any one of the following instances: (i) Tenant is in an Event of Default under this Lease; (ii) in the case of subletting of less than the entire Premises, if the subletting would require access be provided through space leased or held for lease to another tenant, or improvements be made outside of the Premises; (iii) the sublease is prohibited by Landlord's lender; (iv) Landlord determines, in its reasonable discretion, that the character, reputation or business of the proposed subtenant would adversely affect the other tenants of the Building or would impair the reputation of the Building as a Class A office and retail building; (v) [intentionally omitted]; (vi) the financial history or credit rating of the proposed subtenant is unacceptable to Landlord in its reasonable discretion; (vii) the proposed sublease raises unrelated business taxable income concerns for the holder of the mortgage on the Building; (viii) the use of the Premises by the proposed subtenant will violate any provisions or restrictions contained in this Lease, including but not limited to, any relating to the use or occupancy of the Premises; or (ix) the business to be conducted or the proposed use of the Premises by the proposed subtenant is likely to unreasonably increase Operating Expenses beyond that which Landlord incurs prior to such proposed subletting (or would have incurred if Tenant was fully utilizing the Premises) unless Tenant is willing to reimburse Landlord for such costs directly, or is likely to increase the burden on Building systems or equipment over the burden prior to such proposed subletting (or the burden they would have incurred if Tenant was fully utilizing the Premises) unless Tenant agrees to pay the costs of such increased burden on Building systems or equipment. Any attempted subletting by Tenant of any portion of the Premises without Landlord's prior written consent shall constitute a default under this Lease. Furthermore, Tenant shall not have the right to sublease all or any portion of the Premises without first complying with the provisions of Section 7.3 below.

(b) In the event of any sublease, Tenant shall remain fully liable as a primary obligor and principal for Tenant's obligations under this Lease, including, without limitation, the payment of all rent and other sums required hereunder.

7.3 (a) Tenant shall give Landlord written notice of its desire to sublease all or a portion of the Premises ("**Tenant's Sublease Notice**"). Tenant's Sublease Notice shall specify the portion of the Premises proposed to be sublet ("**Proposed Sublease Premises**") and the date on which the Proposed Sublease Premises will be made available for subleasing. Within ten (10)

business days after receipt of the Tenant's Sublease Notice, Landlord shall notify Tenant in writing whether or not Landlord will retake possession of all or any portion of the Proposed Sublease Premises and thereby terminate this Lease with respect to such portion Landlord elects to retake. Notwithstanding anything provided herein to the contrary, Landlord shall only have the right to retake possession of the Proposed Sublease Premises, or any portion thereof, if (i) Tenant subleases, or as a result of such sublease and all other subleases (excluding any sublease to a party that is an Affiliate, Affiliate of Tenant, or Parent of Tenant), eighty percent (80%) or more of the rentable area of the Premises, and (ii) the term of the Proposed Sublease Premises is for ninety-five percent (95%) of the remainder of the Lease Term. If Landlord elects to retake all or any portion of the Proposed Sublease Premises, then (i) Landlord shall retake possession of such portion on the date specified in the Tenant's Sublease Notice or such other date mutually agreed upon by Landlord and Tenant, (ii) Tenant's obligation to pay rent for such portion shall cease on such date, and (iii) Landlord and Tenant shall promptly execute an amendment to this Lease setting forth the new square footage of the reduced Premises to be occupied by Tenant. Thereafter, Tenant shall not have any further rights of any kind, including any rights of renewal, in or to the portion of the Premises so retaken. If the Proposed Sublease Premises constitutes less than the entire Premises, Landlord shall cause to be constructed and installed, at Landlord's sole cost and expense, a demising wall separating the Proposed Sublease Premises from the remaining Premises in accordance with all applicable Legal Requirements. If Landlord does not elect to retake all or any portion of the Proposed Sublease Premises within the aforesaid ten (10) day period, Tenant shall comply with the provisions of Subsections (b) through (e) below with respect to any proposed sublease of such portion of the Premises.

(b) Subject to the requirements of Section 7.2 hereof, Tenant shall have the right to sublease any portion of the Proposed Sublease Premises that Landlord has not elected to retake pursuant to Subsection 7.3 (a) above ("**Eligible Sublease Premises**").

(c) Tenant's right to sublease the Eligible Sublease Premises shall expire 180 days after the date of the Tenant's Sublease Notice. Thereafter, Tenant shall have no right to sublease the Eligible Sublease Premises unless Tenant shall have again complied with the procedures set forth in this Section 7.3.

(d) Provided Tenant is not subject to an Event of Default under this Lease, Tenant shall be entitled to retain fifty percent (50%) of any Profit Derived From Subletting the Premises (hereinafter defined) or any part thereof. "**Profit Derived From Subletting the Premises**" shall mean any and all sums paid to Tenant pursuant to any sublease (other than the fair market value consideration for furniture and equipment) that exceed the base rent and additional rent due under this Lease for such portion of the Premises sublet (but shall not include any period of vacancy), less all reasonable out-of-pocket third-party costs and expenses actually incurred by Tenant in connection with such subletting, including, but not limited to, rental abatement, brokerage commissions, reasonable attorneys' fees, improvements to the Premises and reasonable advertising expenses. For any period during which Tenant is subject to an Event of Default under this Lease, Landlord shall be entitled to one hundred percent (100%) of the rent due from any subtenant of Tenant and Tenant shall provide written notice to each subtenant to pay said rent directly to Landlord. Upon not less than thirty (30) days prior written notice to Tenant, Landlord shall have the right to inspect and audit Tenant's books and records relating to any sublease and expenses incurred by Tenant in connection therewith during normal business hours. Notwithstanding the foregoing, Tenant shall be entitled to retain one hundred percent (100%) of any Profit Derived From Subletting the Premises or any part thereof to an Affiliate of Tenant or a Parent of Tenant pursuant to Section 7.4.

(e) If Tenant requests Landlord's consent to a sublease to a specific subtenant, Tenant will give Landlord at the time of its request, which must be in writing ("**Sublease Consent Request**"), reasonably sufficient information about the proposed subtenant to enable

Landlord to make the determination called for by Section 7.2 hereof, including, without limitation, the following information (collectively, the "**Subtenant Information**"): (i) the name and address of the proposed subtenant, (ii) a copy of the proposed sublease, and (iii) reasonable information about the nature, business, and business history of the proposed subtenant, and its proposed use of the Premises. Provided Tenant provides the Subtenant Information and such other information reasonably requested by Landlord, Landlord agrees to advise Tenant of its decision to grant or withhold its consent to such subletting within twenty (20) days after Landlord's receipt of the Sublease Consent Request and the Subtenant Information (and if Landlord withholds its consent thereto, Landlord shall provide a reasonably detailed explanation in connection therewith).

(f) Notwithstanding anything in this Article VII to the contrary, without Landlord's consent, and without such activities constituting an "assignment" or "sublease," upon not less than five (5) days' prior written notice to Landlord, Tenant may permit Office Sharing (as hereinafter defined) by Affiliates, Clients and Business Partners (as hereinafter defined), without the same constituting a subletting within the meaning of this Article VII, not exceeding twenty percent (20%) of the square feet of rentable area of the Premises (in the aggregate). Notwithstanding the foregoing, if such prior written notice is not reasonable given the circumstances, Tenant shall provide such written notice to Landlord as soon thereafter as is reasonably practicable. In addition, if, in Tenant's good faith business judgment, the identity of the Clients and Business Partners participating in Office Sharing should not be shared with Landlord in order to protect the confidences of such Clients and Business Partners, Tenant shall not be obligated to provide notice to Landlord of such Office Sharing arrangement. The term of each such Office Sharing shall not exceed twenty-four (24) months for each Affiliate, Client and Business Partner, provided no demising walls shall be permitted. The term "**Clients and Business Partners**" shall mean persons or entities who are occupying or using portions of the Premises and are either (i) performing services for Tenant as subcontractors under Tenant's contracts, (ii) personnel employed by persons or entities for whom Tenant is performing services on a contractual basis, or (iii) personnel employed by persons or entities with whom Tenant is engaged in a joint venture or joint teaming effort. The term "**Office Sharing**" shall mean the use of portions of the Premises by Affiliates and/or Clients and Business Partners, if, with respect to such Clients and Business Partners, such use is in connection with the services being provided to Tenant by the applicable Clients and Business Partners, the services being provided to the applicable Clients and Business Partners by Tenant, or the services being jointly provided by Tenant and the applicable Clients and Business Partners; provided, however, that no Affiliates, Clients and Business Partners shall be deemed to be engaging in Office Sharing if such Affiliates, Clients and Business Partners enter into a sublease with Tenant or has any written leasehold interest in the Premises or any portion thereof, Tenant agrees to notify Landlord, promptly upon Landlord's written request therefor, as to the approximate amount of Office Sharing by Affiliates, Clients and Business Partners and to certify to Landlord that such use or occupancy constitutes Office Sharing by Affiliates, Clients and Business Partners and does not constitute a sublease, assignment or other leasehold interest. Notwithstanding the foregoing, Tenant shall not have the right to engage in Office Sharing with respect to any particular Affiliates, Clients and Business Partners as aforesaid if such Affiliates, Clients, and Business Partners are engaged in a business, or the Premises will be used in a manner, that is inconsistent with the primary use set forth in Article VI. For purposes of this Lease, including, without limitation, Tenant's indemnification obligations hereunder, the acts or omissions of the employees or other personnel of Affiliates, Clients and Business Partners shall be deemed to be the acts or omission (as applicable) of Tenant's employees. Under no circumstances shall any Clients and Business Partners have any right to exterior Building signage in connection with this Lease.

7.4 Affiliate Transactions.

(a) Notwithstanding the above restrictions on subletting and assignments, Landlord's prior consent shall not be required with respect to any assignment or subletting to an "**Affiliate of Tenant**" (as hereinafter defined) or a "**Parent of Tenant**" (as hereinafter defined), provided that (x) the following conditions are satisfied and (y) provided Landlord agrees to hold such information subject to customary confidentiality conditions, Tenant delivers to Landlord not less than fifteen (15) days prior to the effective date of such assignment or subletting prior written notice thereof (together with reasonable back-up information to support satisfaction of the following conditions, including, without limitation, certified financial statements) unless such disclosure would be prohibited by securities laws and regulations (in which case, Tenant shall provide Landlord written notice thereof as soon as would be permitted by securities laws and regulations): (i) that such assignee or sublessee has a creditworthiness (e.g., assets and capitalization) and net worth (which shall be determined on a pro forma basis using generally accepted accounting principles consistently applied and using the most recent financial statements) at least as good as those of Tenant as of the Effective Date; (ii) that such assignee or sublessee agrees in writing to be bound by the terms and conditions of this Lease and to assume all of the obligations of Tenant under this Lease (except to the extent such obligations are retained by Tenant pursuant to the terms of the sublease or assignment); (iii) that such assignee or sublessee shall conduct substantially the same business on the Premises as that conducted by Tenant or a related business which is a permitted use pursuant to Article VI of this Lease; (iv) that the character of such person or entity and the nature of its activities in the Premises and in the Building will not adversely affect other tenants in the Building or impair the reputation of the Building as a Class A office and retail building; and (v) that the assignment or sublease is not a so-called "sham" transaction intended by Tenant to circumvent the provisions of this Article VII, and provided further that if such Affiliate of Tenant or Parent of Tenant ceases to be an Affiliate of Tenant or Parent of Tenant, as the case may be, such cessation, at Landlord's sole option, for all purposes hereunder, shall be a default under this Lease for which Landlord shall have all of the remedies available to it pursuant to Article XIX hereof.

(b) In the event of any such assignment or subletting pursuant to this Section 7.4, Tenant shall remain fully liable as a primary obligor and principal for Tenant's obligations under this Lease, including without limitation, the payment of all rent and other sums required hereunder.

(c) For purposes of this Section 7.4, "**Affiliate**" or "**Affiliate of Tenant**" shall mean any corporation, association, trust, limited liability company or partnership (i) which Controls (as herein defined) Tenant, or (ii) which is under the Control of Tenant through stock ownership or otherwise, or (iii) which is under common Control with Tenant or (iv) is an entity which pursuant to applicable state law, is the surviving entity in a merger, consolidation, reorganization, or sale of assets involving Tenant. For the purposes of this Section 7.4, a "**Parent of Tenant**" shall mean any corporation, association, trust, limited liability company or partnership which Controls Tenant, or which owns more than fifty percent (50%) of the issued and outstanding voting securities or other ownership interests of Tenant. The terms "**Control**" or "**Controls**" as used in this Section 7.4 shall mean the power directly or indirectly to influence the direction, management or policies of Tenant or such other entity.

7.5 General Provisions.

(a) Landlord's consent to an assignment or sublease will not be effective until (i) a fully executed copy of the instrument of assignment or sublease has been delivered to Landlord, and the form and substance of the instrument has been approved by Landlord, which approval shall not be unreasonably withheld, conditioned or delayed; (ii) in the case of an assignment, Landlord has received a written instrument in which the assignee has assumed and

agreed to perform all of Tenant's obligations under this Lease; and (iii) Landlord has been reimbursed for the reasonable and documented costs pursuant to Section 7.5(f) hereof.

(b) The consent by Landlord to any assignment or subletting shall not be construed as a waiver or release of Tenant from any and all liability for the performance of all covenants and obligations to be performed by Tenant under this Lease.

(c) Landlord's collection or acceptance of rent from any assignee, transferee or subtenant shall not constitute a waiver or release of Tenant from any of its obligations under this Lease.

(d) Notwithstanding the provisions of Section 7.1 or 7.2 hereof to the contrary, if consent to any assignment or subletting is required by the holder of any mortgage on the Building, no assignment of this Lease in whole or in part or sublease of all or any portions of the Premises shall be permitted without the prior written consent of such holder.

(e) Landlord's consent to any one assignment or subletting will not waive the requirement of its consent to any subsequent assignment or subletting.

(f) Tenant shall reimburse Landlord for all reasonable third-party costs incurred by Landlord in connection with any request by Tenant to sublease all or any portion of the Premises or to assign this Lease or its interest therein, in an amount not to exceed Five Hundred and 00/100 Dollars ($500.00) per request (whether or not Landlord's consent thereto is granted).

(g) Tenant shall require its subtenants and other occupants of the Premises to comply with the applicable provisions of Article XIII below, including without limitation, Sections 13.1(d), 13.9 and 13.13 thereof.

(h) Notwithstanding anything contained herein to the contrary, Landlord may withhold its consent to any proposed assignment or sublease if any part of the rent payable under the proposed assignment or sublease shall be based in whole or in part on the income or profits derived from the Premises or if any proposed assignment or sublease shall potentially have any adverse effect on the real estate investment trust qualification requirements applicable to Landlord and its affiliates.

ARTICLE VIII
TENANT'S MAINTENANCE AND REPAIRS

8.1 Tenant will keep and maintain the Premises and all fixtures and equipment located therein in clean, safe and sanitary condition, will take good care thereof and make all required repairs thereto, and will suffer no waste or injury thereto, all in a manner consistent with a Class A office and retail Building in the Urban Core of Reston Town Center (the "**Market Area**"). Tenant acknowledges the importance of maintaining a uniform and attractive appearance in all areas of the Premises that are visible from: (i) common or public areas of the Building; (ii) the lobby area(s) serving the Building; and (iii) the exterior of the Building, and agrees to comply with all reasonable rules established from time to time by Landlord in connection therewith. At the expiration or earlier termination of this Lease, Tenant shall surrender the Premises broom clean, ordinary wear and tear, casualty (which shall be governed by Article XVII), condemnation (which shall be governed by Article XVIII) excepted, with all movable furniture, furnishings, equipment and other personal property of Tenant removed at Tenant's sole cost and expense (except that if an Event of Default then exists under this Lease, Landlord shall have the right to require that all or any portion thereof remain in the Premises), and subject to all Alterations (including, without limitation, the Leasehold Work) permitted hereunder and not required to be

removed by Tenant pursuant to Article IX. Landlord shall provide and install (subject to reimbursement in accordance with Article IV) replacement tubes and bulbs for Building standard light fixtures in the Premises, if any; all other bulbs and tubes for the Premises shall be Tenant's responsibility, however, at Tenant's request, Landlord shall stock and install such other bulbs and tubes and Tenant shall reimburse Landlord for its actual costs and expenses incurred in connection with said stocking and installation.

8.2 Except as otherwise provided in Article XVII hereof, all injury, breakage and damage to the Premises and to any other part of the Building or Complex caused by any act or omission of Tenant, or of any agent, employee, subtenant, contractor, customer, client, licensee, family member, guest or other invitee of Tenant (each, an "**Invitee**" or, collectively, "**Invitees**"), shall be repaired by and at the sole expense of Tenant, except that Landlord shall have the right, at its option, after ten (10) business days following Tenant's receipt of Landlord's written request for repair (except in the case of emergency of threat to life or property) to make such repairs and to charge Tenant for all reasonable and actual costs and expenses incurred in connection therewith as additional rent hereunder if Tenant fails to commence such repairs or fails to diligently pursue completion of the same within such ten (10) business day period. The liability of Tenant for such costs and expenses shall be reduced by the amount of any insurance proceeds received by Landlord on account of such injury, breakage or damage.

8.3 Landlord shall keep and maintain the exterior and demising walls, foundations, exterior windows, roof and common areas that form a part of the Building, and the Building standard heating, ventilation and air conditioning, mechanical, electrical and plumbing systems, pipes and conduits that are provided by Landlord in the operation of the Building or, on a non-exclusive basis, to the Premises, in clean, safe, sanitary and operating condition in accordance with standards customarily maintained by Class A office and retail buildings in the Market Area and will make all required repairs thereto. All common or public areas of the Building and the land upon which it is situated (including without limitation the first floor lobby area and the exterior landscaping) shall be maintained by Landlord in accordance with standards customarily maintained by Class A office and retail buildings in the Market Area. If the base Building restrooms on each floor of the Premises do not comply with the Restrooms Description, Landlord shall promptly remedy such non-compliance, at Landlord's expense; provided, however, if such non-compliance arises in connection with Tenant's intended use of the Premises that may be inconsistent with standard office use of "business use density," then such compliance shall be at Tenant's expense. Tenant shall promptly provide Landlord with written notice of any defect or need for repairs in or about the Building of which Tenant is aware; provided, however, Landlord's obligation to repair hereunder shall not be limited to matters of which it has been given notice by Tenant. Notwithstanding any of the foregoing to the contrary: (a) maintenance and repair of special tenant areas, facilities, finishes and equipment (including, but not limited to, any special fire protection equipment, telecommunications and computer equipment, kitchen/galley equipment, or internal staircase(s) which may be installed by or at the request of Tenant, supplemental air-conditioning equipment serving the Premises only and all other furniture, furnishings and equipment of Tenant and all Alterations) shall be the sole responsibility of Tenant and shall be deemed not to be a part of the Building structure and systems; and (b) Landlord shall have no obligation to make any repairs brought about by any act or neglect of Tenant or any Invitee.

ARTICLE IX
TENANT ALTERATIONS

9.1 The Premises shall be delivered to and accepted by Tenant in their present "as-is" condition, except that certain Leasehold Work (as defined in **Exhibit B**) shall be made to the Premises by Landlord in accordance with **Exhibit B** attached hereto, which Leasehold Work shall be governed solely by **Exhibit B** and not by Section 9.2 of this Lease.

9.2 (a) Other than the Leasehold Work (which shall be governed by the terms of Exhibit B attached hereto), Tenant will not make or permit anyone to make any alterations, decorations, additions or improvements (hereinafter referred to collectively as "**improvements**" or "**Alterations**") in or to the Premises or the Building, without the prior reasonable written consent of Landlord; except that Tenant may, without the consent of Landlord, make minor Alterations (*i.e.*, recarpeting and repainting) in and to the Premises that (a) are not Structural Alterations, as defined in clauses (i) – (iv) below, (b) do not require the issuance of a building permit and (c) do not cost, in the aggregate with all other Alterations made in any Lease Year, more than One Hundred Fifty Thousand and 00/100 Dollars ($150,000.00). Landlord's sole consent shall be required for any Alteration which is deemed to be a Structural Alteration; provided, however, such consent shall not be unreasonably withheld, conditioned or delayed with respect to one (1) internal stairwell between the fifth (5th) and sixth (6th) floors of the Premises to the extent same constitutes a Structural Alteration. Landlord shall approve any Alteration requiring its consent within ten (10) business days of Tenant's written request. If Landlord shall fail to respond to Tenant's request that Landlord approve any Alteration requiring Landlord's consent within ten (10) business days after receipt of Tenant's request, then Tenant may give Landlord another request for response therefor, which shall state in bold face, capital letters at the top thereof: **"WARNING: SECOND REQUEST. FAILURE TO RESPOND TO THIS REQUEST WITHIN TWO (2) BUSINESS DAYS SHALL RESULT IN DEEMED APPROVAL THEREOF."** If Landlord does not respond within two (2) business days after receipt of the second request, Landlord shall be deemed to have approved such Alteration. Notwithstanding the foregoing, in no event shall there be any deemed approval by Landlord with respect to any Structural Alterations. "**Structural Alterations**" shall be any Alterations that (i) will or may necessitate any changes, replacements or additions to columns or floors or other structural elements of the Building; (ii) are readily visible to the exterior of the Building, or the common and public areas thereof, or the main lobby of the Building, (iii) adversely affect the base building systems of the Building or the roof of the Building, or (iv) would have a negative impact on any building warranty.

(b) Any Alterations made by Tenant shall be made: (i) in a good, workmanlike, first-class and prompt manner and otherwise in accordance with Landlord's rules, including any reasonable rules for contractors, that may be established by Landlord from time to time; (ii) using new or like-new materials only; (iii) by a contractor, on days, at times and under the supervision of an architect approved in writing by Landlord; (iv) after coordinating the work schedule and scope with the Building's property manager to avoid undue interference with the normal operations and use of the Building; (v) in accordance with plans and specifications prepared by an engineer or architect reasonably acceptable to Landlord, which plans and specifications shall be approved in writing by Landlord, which approval shall not be unreasonably withheld, conditioned or delayed; (vi) in accordance with all Legal Requirements, Insurance Requirements (as defined below) including without limitation, all applicable standards and regulations of the Federal Occupational Safety and Health Administration ("**OSHA Requirements**"), which obligation shall include ensuring that all contractors (including sub-contractors) that Tenant utilizes to perform work in the Premises comply with OSHA Requirements and that all required training is provided for such work, and the requirements of the Underwriters' Association of the Commonwealth of Virginia; (vii) intentionally omitted; and (viii) after obtaining public liability and worker's compensation insurance policies in accordance with the terms and conditions of Article XIII approved in writing by Landlord, which policies shall cover every person who will perform any work with respect to such Alteration.

(c) Prior to each payment to any contractor, subcontractor, laborer, or material supplier for all work, labor, and services to be performed and materials to be furnished in connection with Alterations, Tenant shall obtain and deliver to Landlord written waivers of mechanics' and materialmen's liens against the Premises and the Building from all contractors,

subcontractors, laborers and material suppliers for all work, labor and services performed and materials furnished in excess of $5,000.00 in connection with Alterations through the date of the then-current requisition, conditioned only on payment of the amount requisitioned. If any lien (or a petition to establish such lien) is filed in connection with any Alteration, such lien (or petition) shall be discharged by Tenant within ten (10) business days thereafter, at Tenant's sole cost and expense, by the payment thereof or by the filing of a bond acceptable to Landlord. If Landlord gives its consent to the making of any Alteration, such consent shall not be deemed to be an agreement or consent by Landlord to subject its interest in the Premises or the Building to any liens which may be filed in connection therewith. If Tenant shall fail to discharge any such mechanic's or materialmen's lien, Landlord may, at its option, discharge such lien and treat the cost thereof (including reasonable attorneys' fees incurred in connection therewith) as additional rent payable with the next monthly installment of annual base rent falling due; it being expressly agreed that such discharge by Landlord shall not be deemed to waive or release the default of Tenant in not discharging such lien. It is understood and agreed that any improvements to the Premises shall be conducted on behalf of Tenant and not on behalf of Landlord, and that Tenant shall be deemed the "owner" of such improvements (and not the agent of Landlord) for purposes of the application of Commonwealth of Virginia lien laws.

(d) All Alterations involving tie-ins to the Building's fire and life safety systems, changes and modifications to the Building's exterior envelope (roof, glass, glazing, etc.), or any other item affecting a warranty shall, at Landlord's election, be performed by Landlord's designated contractor or subcontractor at Tenant's expense.

(e) Tenant's contractor shall use light sensors in connection with performance of the Alterations.

(f) Promptly after the completion of an Alteration requiring Landlord's consent, Tenant at its expense shall deliver to Landlord two (2) sets of accurate as-built drawings and one (1) AutoCAD flash drive showing such Alteration in place.

(g) When granting its consent, Landlord may impose any reasonable conditions it deems appropriate, including, without limitation, the approval of plans and specifications, approval of the contractor or other persons who will perform the work, and the obtaining of required permits and specified insurance, providing all such approvals shall not be unreasonably withheld, conditioned or delayed. Portions of the Premises visible to the public shall maintain a uniform appearance with the rest of the Building. Landlord's review and approval of any such plans and specifications and its consent to perform work described therein shall not be deemed an agreement by Landlord that such plans, specifications and work conform with all applicable Legal Requirements and requirements of the insurers of the Building ("**Insurance Requirements**") nor deemed a waiver of Tenant's obligations under this Lease with respect to all applicable Legal Requirements and Insurance Requirements nor impose any liability or obligation upon Landlord with respect to the completeness, design sufficiency or compliance with all applicable Legal Requirements or Insurance Requirements of such plans, specifications and work.

(h) Tenant acknowledges and agrees that Landlord shall be the owner of any additions, alterations and improvements in the Premises or the Building to the extent paid for by Landlord.

(i) Upon the expiration of the Lease Term, Tenant shall be required to remove (i) furniture, furnishings, equipment and other personal property of Tenant and Alterations (including the Leasehold Work) that this Lease expressly requires Tenant to remove pursuant to Articles VIII, IX, X, XII, XXVI, XXVII and Exhibit B, and (ii) all Specialty Alterations (including any Specialty Alterations constituting part of the Leasehold Work) if and to the extent

that Landlord gave specific written notice to Tenant at the time of approval of the plans and specifications therefor that such Specialty Alterations would have to be removed upon the expiration of the Lease Term. "**Specialty Alterations**" means any modifications made by or on behalf of Tenant to the base Building structure, systems or equipment, any catering or food preparation kitchens (other than a pantry of the type normally found in the space of office tenants in comparable buildings in the Market Area), emergency generators, UPS systems, private or executive bathrooms, raised computer floors, computer room installations, supplemental HVAC equipment and components other than those used for normal and customary network rooms, safe deposit boxes, vaults, libraries or file rooms requiring reinforcement of floors, internal staircases (in excess of one (1) stairwell (not including the base Building fire-stairs)), slab penetrations (other than core drills for furniture), conveyors, dumbwaiters, non-Building standard life safety systems, security systems or lighting and other Alterations of a similar character. All damages and injury to the Premises or the Building caused by any such removal shall be repaired by Tenant, at Tenant's sole expense.

9.3 Tenant shall indemnify and hold Landlord harmless from and against any and all expenses, liens, claims, liabilities and damages based on or arising, directly or indirectly, by reason of the making of any Alterations to the Premises by Tenant, or its contractors, agents or employees. If any Alterations are made without the prior written consent of Landlord, Landlord shall have the right to remove and correct such Alterations and restore the Premises to their condition immediately prior thereto, and Tenant shall be liable for all reasonable and actual expenses incurred by Landlord in connection therewith. All Alterations to the Premises or the Building made by either party shall, unless same are required to be removed as provided for above in Section 9.2(i), remain upon and be surrendered with the Premises as a part thereof at the end of the Lease Term, except that Tenant shall have the right to remove, at Tenant's sole expense, prior to the expiration or termination of this Lease, all movable furniture, furnishings and equipment located in the Premises solely at the expense of Tenant.

ARTICLE X
SIGNS AND FURNISHINGS

10.1 (a) No sign, advertisement or notice referring to Tenant shall be inscribed, painted, affixed or otherwise displayed on any part of the exterior or the interior of the Building or the Complex except on the directories and doors of offices and such other areas as are designated by Landlord, and then only in such place, number, size, color and style as are approved by Landlord and the Reston Town Center Design Review Board and are in accordance with any applicable state or local building code or zoning regulations. All of Tenant's signs that are approved by Landlord shall, at Landlord's election, be installed by Landlord at Tenant's cost and expense and shall be removed by Tenant at Tenant's sole cost and expense at the end of the Lease Term (and Tenant shall repair any damage to the Building or the Premises caused by such removal). If any sign, advertisement or notice that has not been approved by Landlord is exhibited or installed by Tenant, Landlord shall have the right to remove the same at Tenant's expense. Notwithstanding the foregoing, (i) Tenant shall have the right, at Tenant's sole cost and expense, to install signage identifying Tenant on any floor on which Tenant leases the entire rentable area thereof, and (ii) Landlord shall, at Landlord's cost, provide Building standard suite entry signage identifying Tenant on any multi-tenant floor occupied by Tenant in a location designated by Landlord, and in such place, number, size, color and style as are approved by Landlord in Landlord's reasonable discretion. Landlord shall also list Tenant's name in the Building lobby directory. Landlord's acceptance of any name for listing on the Building directory will not be deemed, nor will it substitute for, Landlord's consent, as required by this Lease, to any sublease, assignment or other occupancy of the Premises. Landlord shall have the right to prohibit any advertisement of or by Tenant which in its opinion tends to impair the reputation of the Building or its desirability as a Class A office and retail building, and upon notice from Landlord, Tenant shall immediately refrain from and discontinue any such

advertisement. Landlord reserves the right to affix, install and display signs, advertisements and notices on any part of the exterior or interior of the Building but not in the Premises except as may be required by law or in emergency situations.

(b) Landlord agrees that so long as FireEye, Inc. is leasing at least 46,646 square feet of rentable area in the Building, (i) Tenant, at Tenant's sole cost and expense, shall have the nonexclusive right to install one (1) sign at the top of the Building (the "**Tenant's Top of Building Sign**") in the location shown on **Exhibit J** attached hereto (except as otherwise provided below) or, at Tenant's written election received by Landlord no later than July 1, 2021, on the Alternate Façade Location described below in lieu of the façade shown on **Exhibit J**; provided, however, that (A) except for the location shown on **Exhibit J** or **Exhibit J-1**, whichever is applicable, the color, size, style, placement, method of installation, material finish and configuration of Tenant's Tope of Building Sign shall be subject to Landlord's prior written approval, which approval shall not be unreasonably withheld, conditioned or delayed, and (B) the color, size, style, location, placement, method of installation, material finish and configuration of Tenant's Top of Building Sign (x) shall be subject to the Reston Town Center Design Review Board's prior written approval, (y) shall comply with all applicable Legal Requirements, and (z) shall be subject to receipt of any required Approvals, as defined below, and (ii) Tenant, at Tenant's sole cost and expense, shall have the nonexclusive right to have one (1) listing identifying Tenant and Tenant's logo (the "**Tenant's Monument Sign**") placed on the existing Building monument sign; provided, however, (A) that subject to the foregoing, the size, style, location, placement, method of installation, material finish and configuration of Tenant's Monument Sign, shall be subject to Landlord's prior written approval, which approval shall not be unreasonably withheld, conditioned or delayed and (B) that the color, size, style, location, placement, method of installation, material finish and configuration of Tenant's Monument Sign (x) shall be subject to the Reston Town Center Design Review Board's prior written approval, (y) shall comply with all applicable Legal Requirements, and (z) shall be subject to any required Approvals. Subject to receipt of all required Approvals (defined below), Landlord hereby approves Tenant's standard typeface and logo for use in Tenant's Top of Building Sign and Tenant's Monument Sign. Tenant shall be responsible for obtaining and securing, at Tenant's expense, all necessary permits, approvals or variances with respect to Tenant's Top of Building Sign and Tenant's Monument Sign from any applicable federal, state, county, city or other local governing authorities having jurisdiction over the Complex (collectively, "**Approvals**"). Landlord, at Tenant's request and expense, shall cooperate with Tenant in securing any necessary Approvals for Tenant's Top of Building Sign and Tenant's Monument Sign. In the event Tenant is unable to obtain the necessary Approvals from any applicable federal, state, county or other local governing authorities having jurisdiction over the Complex, Tenant shall have the right to revise Tenant's Top of Building Sign and/or Tenant's Monument Sign (as applicable) in whatever manner is required to comply with the applicable Approvals, provided such revisions shall be subject to the prior written approval of Landlord, which approval shall not be unreasonably withheld, and if Landlord approves such revisions, in the event that Tenant is unable to secure the required Approvals for the revised Tenant's Top of Building Sign and/or Tenant's Monument Sign (as applicable), Tenant shall have no remedy, claim, cause of action or recourse against Landlord, nor shall failure or inability to obtain any necessary Approvals provide or afford Tenant the opportunity to terminate this Lease. Tenant, at Tenant's sole cost and expense, shall keep and maintain Tenant's Top of Building Sign and Tenant's Monument Sign in good condition and repair. Upon the expiration or earlier termination of this Lease (or at such earlier time that Tenant no longer has the right to such signage), Tenant shall remove, at Tenant's sole cost and expense, Tenant's Top of Building Sign from the top of the Building and Tenant's Monument Sign from the Building monument sign and shall cause, at Tenant's expense, the applicable surface thereof to be repaired and returned to substantially the same condition it was in prior to Tenant's Top of Building sign or Tenant's Monument Sign, as applicable, being affixed thereto. Notwithstanding anything to the contrary contained herein, Tenant hereby acknowledges and agrees that, unless Tenant shall have timely elected the

Alternate Façade Location in accordance with the foregoing, Landlord shall have the right, at Landlord's sole cost and expense, to relocate Tenant's Top of Building Sign from the location shown on **Exhibit J** to the alternate façade of the Building and location thereon depicted on **Exhibit J-1** attached hereto (the "**Alternate Façade Location**") in the event and at such time as the tenant under the Microsoft lease at the Building leases 100,000 rentable square feet in the Building, subject to the Reston Town Center Design Review Board's prior written approval, compliance with all applicable Legal Requirements, and receipt of all required Approvals. Landlord hereby represents that, as of the Effective Date of this Lease, (1) Microsoft does not lease 100,000 rentable square feet in the Building, and (2) Landlord anticipates that if Tenant's Top of Building Sign is installed by the Lease Commencement Date, it will be not be required to be located in the Alternate Façade Location (unless Tenant shall have timely elected such Alternate Façade Location).

10.2 Landlord shall have the right to prescribe the weight and position of safes and other heavy equipment and fixtures, which, if considered necessary by Landlord, shall be installed in such manner as Landlord reasonably directs in order to distribute their weight adequately. Any additional structural support or upgrading of the floor supports that may be needed to accommodate any of Tenant's equipment that exceeds the floor loading specifications for the Building shall be installed at Tenant's sole cost and expense and shall be subject to the prior written approval of Landlord, which approval shall be granted or withheld in Landlord's sole and absolute discretion. Any and all damage or injury to the Premises or the Building caused by moving the property of Tenant into or out of the Premises, or due to the same being in or upon the Premises, shall be repaired at the sole cost of Tenant. No furniture, equipment or other bulky matter of any description will be received into the Building or carried in the elevators except as approved by Landlord, and all such furniture, equipment and other bulky matter shall be delivered only through the designated delivery entrance of the Building and the designated freight elevator. All moving of furniture, equipment and other materials shall be under the supervision of Landlord, who shall not, however, be responsible for any damage to or charges for moving the same. Tenant agrees to remove promptly from the sidewalks adjacent to the Building any of Tenant's furniture, equipment or other material there delivered or deposited.

ARTICLE XI
TENANT'S EQUIPMENT

11.1 Tenant will not install or operate in the Premises any electrically operated equipment or machinery that operates on greater than 110/208 volt power or exceeds Normal Electrical Usage (as defined below) without first obtaining the prior written consent of Landlord. Landlord may condition such consent upon the payment by Tenant of additional rent in compensation for the excess consumption of electricity or other utilities and for the cost of any separate metering or sub-metering of any such equipment that is required and cost of any additional wiring or apparatus that may be occasioned by the operation of such equipment or machinery. In the event that there is located in the Premises a data center containing high density computing equipment, as defined in the U.S. EPA's Energy Star® rating system ("**Energy Star**"), Landlord may require the installation in accordance with Energy Star of separate metering or check metering equipment (Tenant being responsible for the costs of any such meter or check meter and the installation and connectivity thereof). Tenant shall directly pay to the utility all electric consumption on any meter and shall pay to Landlord, as additional rent, all electric consumption on any check meter within thirty (30) days after being billed thereof by Landlord, in addition to other electric charges payable by Tenant under the Lease. Tenant shall be entitled to its proportionate share of electrical capacity on each floor of the Premises including its pro-rata share of panel board breaker space, as reasonably determined by Landlord. In the event that Tenant purchases any utility service directly from the provider, Tenant shall promptly provide to Landlord either permission to access Tenant's usage information from the utility service provider or copies of the utility bills for Tenant's usage of such services in a format

reasonably acceptable to Landlord. In the event Tenant's electrical circuitry requirements exceed its pro-rata share of panel board breaker space, Tenant will be responsible for the cost of adding supplemental panel board breaker space and related equipment. Tenant shall not install any equipment of any type or nature that will or may necessitate any changes, replacements or additions to, or in the use of, the water system, heating system, plumbing system, air-conditioning system or electrical system of the Premises or the Building, without first obtaining the prior written consent of Landlord and Landlord may require that any additional equipment (including supplemental HVAC systems, subject to Section 14.11) be sub-metered. Business machines and mechanical equipment belonging to Tenant which cause noise or vibration that may be transmitted to the structure of the Building or to any space therein to such a degree as to be objectionable to Landlord or to any tenant in the Building shall be installed and maintained by Tenant, at Tenant's expense, on vibration eliminators or other devices sufficient to reduce such noise and vibration to a level satisfactory to Landlord. "**Normal Electrical Usage**" is defined as 4 watts per square foot for receptacles and 1.5 watts per square foot for lighting. It is understood and agreed that the Normal Electrical Usage includes, for normal general office purposes, copying machines, personal or desk-top computers and other standard office equipment, but excludes any machine that runs twenty-four (24) hours, seven (7) days a week or is used for supplemental cooling.

ARTICLE XII
ENTRY AND INSPECTION BY LANDLORD

12.1 Subject to the terms and conditions of this Section 12.1 and Section 12.3, Tenant shall permit Landlord, its agents or representatives, to enter the Premises, without charge therefor to Landlord and without diminution of the rent payable by Tenant, to examine, inspect and protect the Premises and the Building (including in the case of threat to life or property) to make such alterations or repairs (as in the sole judgment of Landlord may be deemed necessary), and to exhibit the same to prospective tenants at any time during the last thirteen (13) months of the Lease Term. In connection with any such entry, Landlord shall endeavor to (i) use reasonable efforts to minimize the disruption to Tenant's use of the Premises and (ii) provide twenty-four (24) hours' prior written notice to Tenant (except in cases of emergency), which written notice may be via email.

12.2 Subject to compliance with all applicable Legal Requirements and Landlord's prior written approval, which shall not be unreasonably withheld, conditioned or delayed, Tenant shall be permitted to install, or use in substitution, within the Premises (i) continuously monitored video surveillance, (ii) security lighting and (iii) key-card systems (collectively, "**Tenant's Security Systems**"). Tenant shall be solely responsible for the cost of any installation, maintenance or removal of any Tenant Security Systems. Tenant shall be obligated to remove any Tenant Security Systems from the Premises at the expiration or earlier termination of the Lease Terms and shall cause the walls, floors and ceilings of the Premises and other areas of the Building which may be damaged in connection with such removal to be repaired to the condition they were in immediately prior to such removal. Subject to the provisions of Sections 12.1 and 12.3, Landlord shall be provided full access to the Premises. Tenant's Security Systems shall remain the personal property of Tenant. Tenant shall, at Tenant's sole cost and expense, repair any damage caused by the installation, maintenance, operation and removal of any Tenant's Security Systems.

12.3 Subject to compliance with all applicable Legal Requirements, Tenant shall have the right, within the Premises, (i) to utilize unarmed security guards, (ii) except in the case of an emergency, to require that Landlord be accompanied by a representative of Tenant (provided Tenant shall make a representative available for such purpose), (iii) to prohibit photographs and (iv) to require that Landlord or any of its designees who access the Premises to wear identification badges (collectively, "**Tenant's Security Protocols**").

12.4 As part of the plan review process set forth in Section 4 of the Work Agreement and in any event prior to the Lease Commencement Date, Tenant shall have the right to designate one area located within the Premises as a secured access area (the "**Secured Access Area**"), provided that the size, location and configuration of the Secured Access Area shall be subject to Landlord's reasonable approval. Tenant shall have the right to expand, contract and relocate the Secured Access Area, provided that the size, location and configuration of such expansion, contraction or relocation shall be subject to Landlord's reasonable approval. Tenant acknowledges that it shall be reasonable for Landlord to take into consideration the needs of present and future tenants and other occupants at the Building in connection with both foregoing approvals. Notwithstanding Landlord's right to access the Premises accompanied by a representative of Tenant (or without a representative of Tenant if Tenant fails to make a representative available for such purpose) under clause (ii) of Section 12.3, except in an emergency, Landlord shall not enter the Secured Access Area. In case of an emergency, Landlord shall have the right to enter the Secured Access Area by breaking down the doors or by other forcible means and Landlord shall suffer no liability to Tenant whatsoever therefor. Landlord shall be under no obligation whatsoever, notwithstanding anything to the contrary contained in this Lease, to perform any cleaning, maintenance or repair work in the Secured Access Area to which Landlord is not given reasonable access at the time such cleaning, maintenance or other repair work is being performed for the balance of the Premises, and there shall be no reduction or credit in rent or additional rent under this Lease as a result thereof. Tenant shall pay, within thirty (30) days after request therefor, all actual costs incurred by Landlord in connection with Landlord's compliance with this Section, including, without limitation, any overtime or additional charges for cleaning, maintenance or repair work not performed at the customary times or in the customary manner.

12.5 As part of the plan review process set forth in Section 4 of the Work Agreement and in any event prior to the Lease Commencement Date, Tenant shall have the right to designate a portion of the Premises as a restricted intrusion area (the "**Restricted Intrusion Area**"), provided that the size, location and configuration of the Restricted Intrusion Area shall be subject to Landlord's reasonable approval. Landlord shall use commercially reasonable efforts to ensure that any core drills and associated cabling and wiring into the Restricted Intrusion Area from the adjacent floor of the Building will be enclosed, as is reasonably acceptable to Landlord, Tenant and the applicable adjacent floor tenant or other occupant. Tenant acknowledges that if the Restricted Intrusion Area is located in an area that is subject to a lease or other occupancy agreement as of the date on which the Restricted Intrusion Area is designated, any core drills and associated cabling and wiring into the Restricted Intrusion Area from the adjacent floor of the Building may not be enclosed. The cost of such enclosure and other security arrangement shall be at Tenant's sole expense. Tenant acknowledges and agrees that Landlord shall have the right to escort such adjacent floor tenant or other occupant into the Restricted Intrusion Area for the purpose of installing, inspecting and repairing such cabling and wiring upon the same terms and conditions set forth in Section 12.1.

12.6 Tenant shall maintain such insurance as is appropriate with respect to the Tenant's Security Systems (including the installation, operation, maintenance and removal thereof), the Tenant's Security Protocols and the Secured Access Area. Landlord shall have no liability to any party on account of the Tenant's Security Systems (including the installation, operation, maintenance and removal thereof), the Tenant's Security Protocols and/or the Secured Access Area (and Landlord's inability to gain access to the Secured Access Area), including, without limitation, claims based on the interruption of or loss to Tenant's business). Tenant agrees that, in addition to any indemnification provided Landlord in this Lease, Tenant shall indemnify and shall hold the Landlord Parties harmless from and against all costs, damages, claims, liabilities and expenses (including attorney's fees and any costs of litigation) suffered by or claimed against the Landlord Parties, directly or indirectly, based on, arising out of or resulting from the

Tenant's Security Systems (including the installation, operation, maintenance and removal thereof), the Tenant's Security Protocols and/or the Secured Access Area (and Landlord's inability to gain access to the Secured Access Area).

ARTICLE XIII
INDEMNITY AND INSURANCE

13.1 Indemnity.

(a) Tenant's Indemnity. To the fullest extent permitted by law, Tenant agrees to indemnify, defend, protect, and save harmless the Landlord Parties from and against all claims of whatever nature by a third party arising from or claimed to have arisen from (i) any act, omission or negligence of the Tenant Parties (as hereinafter defined); (ii) any accident, injury or damage whatsoever caused to any person, or to the property of any person, occurring in or about the Premises from the earlier of (A) the date on which any Tenant Party first enters the Premises for any reason or (B) the Lease Commencement Date, and thereafter throughout and until the end of the Lease Term, and after the end of the Lease Term for so long after the end of the Lease Term as any of Tenant's Property (as defined in Section 13.4) remains on the Premises**,** or anyone acting by, through or under Tenant may use, be in occupancy of any part of, or have access to the Premises or any portion thereof; (iii) any accident, injury or damage whatsoever occurring outside the Premises but within the Building or the Parking Garages, or on common areas of the Land (collectively, the "**Building Facility**"), where such accident, injury or damage results, or is claimed to have resulted, from any act, omission or negligence on the part of any of the Tenant Parties; or (iv) any breach of this Lease by Tenant; or (v) Tenant's, its employees', its agents' or Trainers' (as defined in Section 14.7) use of the Building's fitness facility or the Risers (as defined in Section 26.1). Tenant shall pay such indemnified amounts as they are incurred by the Landlord Parties. This indemnification shall not be construed to deny or reduce any other rights or obligations of indemnity that Landlord Parties may have under this Lease.

(b) Tenant's Breach. In the event that Tenant breaches any of its indemnity obligations hereunder or under any other contractual or common law indemnity: (i) Tenant shall pay to the Landlord Parties all liabilities, loss, cost, or expense (including reasonable attorneys' fees) incurred as a result of said breach, and the reasonable value of time expended by the Landlord Parties as a result of said breach; and (ii) the Landlord Parties may deduct and offset from any amounts due to Tenant under this Lease any amounts owed by Tenant pursuant to this section.

(c) No limitation. The indemnification obligations under this section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Tenant or any subtenant or other occupant of the Premises under workers' compensation acts, disability benefit acts, or other employee benefit acts. Tenant waives any immunity from or limitation on its indemnity or contribution liability to the Landlord Parties based upon such acts.

(d) Subtenants and other occupants. Tenant shall require its subtenants and other occupants of the Premises to provide similar indemnities to the Landlord Parties in a form reasonably acceptable to Landlord.

(e) Landlord's Indemnity. Subject to the limitations in Section 15.4 and in Section 13.2 and Section 13.13 of this Article, and to the extent not resulting from any act, omission, fault, negligence or misconduct of Tenant or its contractors, licensees, invitees, agents, servants or employees, Landlord agrees to indemnify, defend, protect, and save harmless Tenant from and against any claim by a third party arising from any injury to any person occurring in the Premises or in the Building Facility after the date that possession of the Premises is first

delivered to Tenant and until the expiration or earlier termination of the Lease Term, to the extent such injury results from the gross negligence or willful misconduct of Landlord or Landlord's employees, or from any breach or default by Landlord in the performance or observance of its covenants or obligations under this Lease; provided, however, that in no event shall the aforesaid indemnity render Landlord responsible or liable for any loss or damage to fixtures, personal property or other property of Tenant, and Landlord shall in no event be liable for any indirect or consequential damages. Tenant shall provide notice of any such claim to Landlord as soon as practicable.

(f) Landlord's Breach. In the event that Landlord breaches any of its indemnity obligations hereunder or under any other contractual or common law indemnity: (i) Landlord shall pay to the Tenant Parties all liabilities, loss, cost, or expense (including reasonable attorneys' fees) incurred as a result of said breach, and the reasonable value of time expended by the Tenant Parties as a result of said breach; and (ii) the Tenant Parties may deduct and offset from any amounts due to Landlord under this Lease any amounts owed by Landlord pursuant to this section.

(g) Survival. The terms of this section shall survive any termination or expiration of this Lease.

(h) Costs. The foregoing indemnities and hold harmless agreements shall include indemnity for all costs, expenses and liabilities (including, without limitation, attorneys' fees and disbursements) incurred by the Landlord Parties or Tenant Parties, as applicable, in connection with any such claim or any action or proceeding brought thereon, and the defense thereof. In addition, in the event that any action or proceeding shall be brought against one or more Landlord Parties or Tenant Parties, as applicable, by reason of any such claim, the non-breaching party, upon request from the indemnified party, shall resist and defend such action or proceeding on behalf of the indemnified party by counsel appointed by such party's insurer (if such claim is covered by insurance without reservation) or otherwise by counsel reasonably satisfactory to the indemnified party. The indemnified party shall not be bound by any compromise or settlement of any such claim, action or proceeding without the prior written consent of such indemnified party.

(i) Landlord Parties and Tenant Parties. The term "**Landlord Party**" or "**Landlord Parties**" shall mean Landlord, any affiliate of Landlord, Landlord's managing agents for the Building, each Superior Lien Holder (as hereinafter defined) and each of their respective direct or indirect partners, officers, shareholders, directors, members, trustees, beneficiaries, servants, employees, principals, contractors, licensees, agents or representatives. The term "**Tenant Party**" or "**Tenant Parties**" shall mean Tenant, any affiliate of Tenant, any permitted subtenant or any other permitted occupant of the Premises, and each of their respective direct or indirect partners, officers, shareholders, directors, members, trustees, beneficiaries, servants, employees, principals, contractors, licensees, agents, invitees or representatives.

13.2 Tenant's Risk. Tenant agrees to use and occupy the Premises, and to use such other portions of the Building and the Building Facility as Tenant is given the right to use by this Lease at Tenant's own risk. The Landlord Parties shall not be liable to the Tenant Parties for any damage, injury, loss, compensation, or claim (including, but not limited to, claims for the interruption of or loss to a Tenant Party's business) based on, arising out of or resulting from any cause whatsoever, including, but not limited to, repairs to any portion of the Premises or the Building or the Building Facility, any fire, robbery, theft, mysterious disappearance, or any other crime or casualty, any cyber attack affecting the Building systems or any computer systems in the Premises or the Building, the actions of any other tenants of the Building or of any other person or persons, or any leakage in any part or portion of the Premises or the Building or the Building Facility, or from water, rain or snow that may leak into, or flow from any part of the

Premises or the Building or the Building Facility, or from drains, pipes or plumbing fixtures in the Building or the Building Facility. Any goods, property or personal effects stored or placed in or about the Premises shall be at the sole risk of the Tenant Party, and neither the Landlord Parties nor their insurers shall in any manner be held responsible therefor. The Landlord Parties shall not be responsible or liable to a Tenant Party, or to those claiming by, through or under a Tenant Party, for any loss or damage that may be occasioned by or through the acts or omissions of persons occupying adjoining premises or any part of the premises adjacent to or connecting with the Premises or any part of the Building or otherwise. The provisions of this section shall be applicable to the fullest extent permitted by law, and until the expiration or earlier termination of the Lease Term, and during such further period as Tenant or anyone acting by, through or under Tenant may use, be in occupancy of any part of, or have access to the Premises or of the Building.

13.3 Tenant's Commercial General Liability Insurance. Tenant agrees to maintain in full force on or before the earlier of (i) the date on which any Tenant Party first enters the Premises for any reason or (ii) the Lease Commencement Date, and thereafter throughout and until the end of the Lease Term, and after the end of the Lease Term for so long after the end of the Lease Term as Tenant or anyone acting by, through or under Tenant may use, be in occupancy of any part of, or have access to of the Premises or any portion thereof, a policy of commercial general liability insurance, on an occurrence basis, issued on a form at least as broad as Insurance Services Office ("ISO") Commercial General Liability Coverage "occurrence" form CG 00 01 10 01 or another Commercial General Liability "occurrence" form providing equivalent coverage. Such insurance shall include contractual liability coverage, specifically covering but not limited to the indemnification obligations undertaken by Tenant in this Lease. The minimum limits of liability of such insurance shall be Five Million Dollars ($5,000,000.00) per occurrence, which may be satisfied through a combination of primary and excess/umbrella insurance (subject to Landlord's reasonable approval). In addition, in the event Tenant hosts a function in the Premises, Tenant agrees to obtain, and cause any persons or parties providing services for such function to obtain, the appropriate insurance coverages as determined by Landlord (including liquor liability coverage, if applicable) and provide Landlord with evidence of the same.

13.4 Tenant's Property Insurance. Tenant shall maintain at all times during the Term of the Lease, and during such earlier or later time as Tenant may be performing work in or to the Premises or have property, fixtures, furniture, equipment, machinery, goods, supplies, wares or merchandise on the Premises, and continuing thereafter so long as any of Tenant's Property remains on the Premises, or Tenant or anyone acting by, through or under Tenant may use, be in occupancy of or have access to, any part of the Premises, business interruption insurance and insurance against loss or damage covered by the so-called "all risk" or equivalent type insurance coverage with respect to (i) Tenant's property, fixtures, furniture, equipment, machinery, goods, supplies, wares and merchandise, and other property of Tenant located at the Premises (ii) all additions, alterations and improvements and other modifications made by or on behalf of the Tenant in the Premises (except to the extent paid for by Landlord in connection with this Lease) or existing in the Premises as of the Effective Date ("**Leasehold Improvements**"), and (iii) any property of third parties, including but not limited to leased or rented property, in the Premises in Tenant's care, custody, use or control, provided that such insurance in the case of (iii) maybe be maintained by such third parties, (collectively "**Tenant's Property**"). At the request of Landlord, Tenant shall provide to Landlord a detailed description of the Leasehold Improvements made by or on behalf of Tenant and the cost thereof. The business interruption insurance required by this section shall be in minimum amounts typically carried by prudent tenants engaged in similar operations, but in no event shall be in an amount less than the Base Rent then in effect during any Lease Year, plus any additional rent due and payable for the immediately preceding Lease Year. The "all risk" insurance required by this section shall be in an amount at least equal to the full replacement cost of Tenant's Property. In addition, during such time as Tenant is performing

work in or to the Premises, Tenant, at Tenant's expense, shall also maintain, or shall cause its contractor(s) to maintain, builder's risk insurance for the full insurable value of such work. Landlord and such additional persons or entities as Landlord may reasonably request shall be named as loss payees, as their interests may appear, on the policy or policies required by this section for Leasehold Improvements. In the event of loss or damage covered by the "all risk" insurance required by this section, the responsibilities for repairing or restoring the loss or damage shall be determined in accordance with Article XVII below. To the extent that Landlord is obligated to pay for the repair or restoration of the loss or damage covered by the policy, Landlord shall be paid the proceeds of the "all risk" insurance covering the loss or damage. To the extent Tenant is obligated to pay for the repair or restoration of the loss or damage, covered by the policy, Tenant shall be paid the proceeds of the "all risk" insurance covering the loss or damage. If both Landlord and Tenant are obligated to pay for the repair or restoration of the loss or damage covered by the policy, the insurance proceeds shall be paid to each of them in the pro rata proportion of their obligations to repair or restore the loss or damage. If the loss or damage is not repaired or restored (for example, if the Lease is terminated pursuant to Article XVII), the insurance proceeds shall be paid to Landlord and Tenant in the pro rata proportion of their relative contributions to the cost of the leasehold improvements covered by the policy. The insurance required to be maintained by Tenant pursuant to this section may be carried under blanket insurance policies covering the Premises and other properties owned or leased by Tenant or Tenant's Affiliates, so long as such policies comply with this Lease. The coverage provided by such policies shall at all times meet the requirements of this Lease, without co-insurance.

13.5 Tenant's Other Insurance. Tenant agrees to maintain in full force on or before the earlier of (i) the date on which any Tenant Party first enters the Premises for any reason or (ii) the Lease Commencement Date, and thereafter throughout the end of the Lease Term, and after the end of the Lease Term for so long after the end of the Lease Term any of Tenant's Property remains on the Premises or as Tenant or anyone acting by, through or under Tenant may use, be in occupancy of, or have access to the Premises or any portion thereof, (1) comprehensive automobile liability insurance (covering any automobiles owned or operated by Tenant at the Building Facility) issued on a form at least as broad as ISO Business Auto Coverage form CA 00 01 07 97 or other form providing equivalent coverage; (2) worker's compensation insurance or participation in a monopolistic state workers' compensation fund; and (3) employer's liability insurance or (in a monopolistic state) Stop Gap Liability insurance. Such automobile liability insurance shall be in an amount not less than One Million Dollars ($1,000,000) for each accident. Such worker's compensation insurance shall carry minimum limits as defined by the law of the jurisdiction in which the Premises are located (as the same may be amended from time to time). Such employer's liability insurance shall be in an amount not less than One Million Dollars ($1,000,000) for each accident, One Million Dollars ($1,000,000) disease-policy limit, and One Million Dollars ($1,000,000) disease-each employee.

13.6 Requirements For Insurance. All insurance required to be maintained by Tenant pursuant to this Lease shall be maintained with responsible companies that are admitted to do business, and are in good standing, in the jurisdiction in which the Premises are located and that have a rating of at least "A" and are within a financial size category of not less than "Class IX" in the most current Best's Key Rating Guide or such similar rating as may be reasonably selected by Landlord. All such insurance shall be acceptable in form and content to Landlord. Tenant shall provide Landlord thirty (30) days' prior written notice of cancellation. All commercial general liability, excess/umbrella liability and automobile liability insurance policies shall be primary and noncontributory. No such policy shall contain any self-insured retention greater than Twenty-Five Thousand Dollars ($25,000.00). Any deductibles and such self-insured retentions shall be deemed to be "insurance" for purposes of the waiver in Section 13.13 below. Landlord reserves the right from time to time to require Tenant to obtain reasonably higher minimum amounts of insurance based on such limits as are customarily carried with respect to similarly situated tenants in comparable properties in the area in which the Premises are located. The

minimum amounts of insurance required by this Lease shall not be reduced by the payment of claims or for any other reason. In the event Tenant shall fail to obtain or maintain any insurance meeting the requirements of this Article, or to deliver such policies or certificates as required by this Article, Landlord may, at its option, on ten (10) days' notice to Tenant, procure such policies for the account of Tenant, and the cost thereof shall be paid to Landlord within ten (10) days after delivery to Tenant of bills therefor.

13.7 Additional Insureds. To the fullest extent permitted by law, the commercial general liability and auto insurance carried by Tenant pursuant to this Lease, and any additional liability insurance carried by Tenant pursuant to Section 13.3 of this Lease, shall name Landlord, Landlord's managing agent, the persons and entities set forth on Exhibit G attached hereto and made a part hereof, and such other persons and entities as Landlord may reasonably request from time to time as additional insureds with respect to liability arising out of or related to this Lease or the operations of Tenant (collectively "**Additional Insureds**"). Such insurance shall provide primary coverage without contribution from any other insurance carried by or for the benefit of Landlord, Landlord's managing agent, or other Additional Insureds. Such insurance shall also waive any right of subrogation against each Additional Insured. For the avoidance of doubt, each primary policy and each excess/umbrella policy through which Tenant satisfies its obligations under this Section must provide coverage to the Additional Insured that is primary and non-contributory.

13.8 Certificates of Insurance. On or before the earlier of (i) the date on which any Tenant Party first enters the Premises for any reason or (ii) the Lease Commencement Date, Tenant shall furnish Landlord with certificates evidencing the insurance coverage required by this Lease, and renewal certificates shall be furnished to Landlord at least annually thereafter, and at least thirty (30) days prior to the expiration date of each policy for which a certificate was furnished. (Acceptable forms of such certificates for liability and property insurance, respectively, as of the date hereof, are attached as Exhibit H, however other forms of certificates may satisfy the requirements of this section.) In jurisdictions requiring mandatory participation in a monopolistic state workers' compensation fund, the insurance certificate requirements for the coverage required for workers' compensation will be satisfied by a letter from the appropriate state agency confirming participation in accordance with statutory requirements. Such current participation letters required by this Section shall be provided every six (6) months for the duration of this Lease. Failure by the Tenant to provide the certificates or letters required by this Section shall not be deemed to be a waiver of the requirements in this Section. Upon request by Landlord, a true and complete copy of any insurance policy required by this Lease shall be delivered to Landlord within ten (10) business days following Tenant's receipt of Landlord's written request.

13.9 Subtenants and Other Occupants. Tenant shall require its subtenants and other occupants of the Premises to provide written documentation evidencing the obligation of such subtenant or other occupant to indemnify the Landlord Parties to the same extent that Tenant is required to indemnify the Landlord Parties pursuant to section 13.1 above, and to maintain insurance that meets the requirements of this Article, and otherwise to comply with the requirements of this Article, provided that the terms of this Section 13.9 shall not relieve Tenant of any of its obligations to comply with the requirements of this Article. Tenant shall require all such subtenants and occupants to supply certificates of insurance evidencing that the insurance requirements of this Article have been met and shall forward such certificates to Landlord on or before the earlier of (i) the date on which the subtenant or other occupant or any of their respective direct or indirect partners, officers, shareholders, directors, members, trustees, beneficiaries, servants, employees, principals, contractors, licensees, agents, invitees or representatives first enters the Premises or (ii) the commencement of the sublease. Tenant shall be responsible for identifying and remedying any deficiencies in such certificates or policy provisions.

13.10 No Violation of Building Policies. Tenant shall not commit or permit any violation of the policies of fire, boiler, sprinkler, water damage or other insurance covering the Building Facility and/or the fixtures, equipment and property therein carried by Landlord, or do or permit anything to be done, or keep or permit anything to be kept, in the Premises, which in case of any of the foregoing (i) would result in termination of any such policies, (ii) would adversely affect Landlord's right of recovery under any of such policies, or (iii) would result in reputable and independent insurance companies refusing to insure the Building Facility or the property of Landlord in amounts reasonably satisfactory to Landlord.

13.11 Tenant to Pay Premium Increases. If, because of anything done, caused or permitted to be done, or omitted solely by Tenant (or its subtenant or other occupants of the Premises), the rates for liability, fire, boiler, sprinkler, water damage or other insurance on the Building Facility or on the property and equipment of Landlord or any other tenant or subtenant in the Building shall be higher than they otherwise would be, Landlord shall provide written notice thereof to Tenant. If following not less than ten (10) business days prior written notice, Tenant fails to remedy the situation, Tenant shall be responsible for the cost of reimbursing Landlord and/or the other tenants and subtenants in the Building for the additional insurance premiums thereafter paid by Landlord or by any of the other tenants and subtenants in the Building which shall have been charged solely because of the aforesaid reasons, such reimbursement to be made from time to time on Landlord's demand.

13.12 Landlord's Insurance.

(a) Required insurance. Landlord shall maintain insurance against loss or damage with respect to the Building on an "all risk" or equivalent type insurance form, with customary exceptions, subject to such deductibles and self-insured retentions as Landlord may determine, in an amount equal to at least the replacement value of the Building. Landlord shall also maintain such insurance with respect to any improvements, alterations, and fixtures of Tenant located at the Premises to the extent paid for by Landlord. The cost of such insurance shall be treated as a part of Operating Expenses. Such insurance shall be maintained with an insurance company selected by Landlord. Payment for losses thereunder shall be made solely to Landlord.

(b) Optional insurance. Landlord may maintain such additional insurance with respect to the Building and the Building Facility, including, without limitation, earthquake insurance, terrorism insurance, flood insurance, liability insurance and/or rent insurance that are customary for landlords of comparable buildings in the Market Area. Landlord may also maintain such other insurance as may from time to time be required by Superior Lien Holder. The cost of all such additional insurance shall also be part of the Operating Expenses.

(c) Blanket and self-insurance. Any or all of Landlord's insurance may be provided by blanket coverage maintained by Landlord or any affiliate of Landlord under its insurance program for its portfolio of properties, or by Landlord or any affiliate of Landlord under a program of self-insurance, and in such event Operating Expenses shall include the portion of the reasonable cost of blanket insurance or self-insurance that is allocated to the Building.

(d) No obligation. Landlord shall not be obligated to insure, and shall not assume any liability of risk of loss for, Tenant's Property, including any such property or work of tenant's subtenants or occupants. Landlord will also have no obligation to carry insurance against, nor be responsible for, any loss suffered by Tenant, subtenants or other occupants due to interruption of Tenant's or any subtenant's or occupant's business.

13.13 Waiver of Subrogation. To the fullest extent permitted by law, and notwithstanding any term or provision of this Lease to the contrary, the parties hereto waive and release any and all rights of recovery against the other, and agree not to seek to recover from the other or to make any claim against the other, and in the case of Landlord, against all "**Tenant Parties**", and in the case of Tenant, against all "**Landlord Parties**" (hereinafter defined), for any loss or damage incurred by the waiving/releasing party to the extent such loss or damage is insured under or arises from the risks insured against under any insurance policy required by this Lease or which would have been so insured had the party carried the insurance it was required to carry hereunder. Tenant shall obtain from its subtenants and other occupants of the Premises a similar waiver and release of claims against any or all of Tenant or Landlord. The insurance policies required by this Lease shall contain no provision that would invalidate or restrict the parties' waiver and release of the rights of recovery in this section. The parties hereto covenant that no insurer shall hold any right of subrogation against the parties hereto by virtue of such insurance policy.

13.14 Tenant's Work. During such times as Tenant is performing work or having work or services performed in or to the Premises, Tenant shall require its contractors, and their subcontractors of all tiers, to obtain and maintain commercial general liability, automobile, workers compensation, employer's liability, builder's risk, and equipment/property insurance in accordance with the terms and conditions of Schedule II to Exhibit B attached hereto and made a part hereof, as the same may be modified by written notice from Landlord from time to time consistent with such terms as are customarily required of such contractors and subcontractors on similar projects. The amounts and terms of all such insurance are subject to Landlord's written approval, which approval shall not be unreasonably withheld. The commercial general liability and auto insurance carried by Tenant's contractors and their subcontractors of all tiers pursuant to this section shall name the Additional Insureds as additional insureds with respect to liability arising out of or related to their work or services. Such insurance shall provide primary coverage without contribution from any other insurance carried by or for the benefit of Landlord, Landlord's managing agent, or other Additional Insureds. Such insurance shall also waive any right of subrogation against each Additional Insured. Tenant shall obtain and submit to Landlord, prior to the earlier of (i) the entry onto the Premises by such contractors or subcontractors or (ii) commencement of the work or services, certificates of insurance evidencing compliance with the requirements of this section and Schedule II to Exhibit B hereto.

13.15 Self-Insurance. At Tenant's option, for so long as (i) FireEye, Inc. is the Tenant under this Lease, (ii) no Event of Default exists, (iii) Tenant maintains a credit rating from at least one institutional rating service (Standard & Poors, Moody's, or Fitch) of "A-" or better, and (iv) Tenant satisfies the Net Worth Requirement defined hereinbelow, Tenant may elect to "self-insure" and maintain self insured retentions in its property insurance policy larger than those permitted by Section 13.6 above and may self-insure some or all of Tenant's Property located at the Premises (*i.e.*, Tenant may elect to absorb all or a portion of the risks for which Tenant would otherwise have insurance coverage under Tenant's policies in this Lease). To the extent Tenant elects to self-insure such risks then, as between Landlord and Tenant, Landlord and Tenant shall maintain all rights and obligations between themselves as if Tenant maintained the insurance with a third-party insurer, including any waivers of any rights of recovery and/or subrogation against one another or their insurers for any losses which would have been covered had Tenant maintained such third-party insurance. Also, in such event, Tenant shall pay from its assets the costs, expenses, damages, claims, losses and liabilities, including attorneys' fees and defense costs, relating to injury or death to persons or damage to property, to the extent that a third-party insurance company would have been obligated to pay those amounts if Tenant had maintained the insurance required by this Article. Any undertaking by Tenant to maintain larger self-insured retentions or to self-insure Tenant's Property located at the Premises pursuant to this section shall not relieve Tenant from any of Tenant's other obligations under this Article, nor shall it serve to adversely affect Landlord. The rights and obligations of Landlord shall remain the same

as if Tenant had obtained and maintained separate insurance from an independent institutional insurer of recognized responsibility for the coverages as provided herein, including the application of the waivers and releases in 13.13 above. Tenant shall be liable as a self-insurer for the same coverages and the same amount of insurance as would Tenant's insurer if Tenant maintained the insurance described in this Article. As used herein the term "**Net Worth Requirement**" shall mean that Tenant shall maintain a net worth of at least $500,000,000 in the equivalent of year 2018 dollars as calculated in accordance with generally accepted accounting principles consistently applied on a year-to-year basis. Tenant shall periodically demonstrate its compliance with the Net Worth Requirement, to Landlord's satisfaction, upon request by Landlord.

ARTICLE XIV
SERVICES AND UTILITIES

14.1 Landlord shall furnish to the Premises year-round HVAC during normal hours of operation of the Building, as hereinafter provided, during the seasons when such utilities are required, as determined in Landlord's reasonable judgment, in accordance with the specifications outlined in Exhibit I, but in no event at a level that is less than the level provided by landlords of similar Class A office buildings located in the Market Area. Landlord shall also provide reasonably adequate electricity (in accordance with the specifications outlined in Exhibit I), water, exterior window-cleaning service, and janitorial service (after 6:00 p.m.) on Monday through Friday only, excluding legal holidays, in accordance with the janitorial specifications outlined in Exhibit E attached hereto. Landlord will also provide elevator service; provided, however, that Landlord shall have the right to remove elevators from service as may be required for moving freight, or for servicing or maintaining the elevators or the Building. At least one elevator cab shall be available for use by Tenant at all times (except in the event of an emergency). The normal hours of operation of the Base Building HVAC system will be 7:00 a.m. to 7:00 p.m. on Monday through Friday (except legal holidays) and, upon request by Tenant provided to Landlord prior to 5:00 p.m. on the preceding Friday, in writing, via telephone, or via email, 8:00 a.m. to 2:00 p.m. on Saturday (except legal holidays). There will be no normal hours of operation of the Building on Sundays or legal holidays, and Landlord shall not be obligated to maintain or operate the Building at such times unless special arrangements are made by Tenant. In the event Tenant requires after-hours HVAC service on Sundays or legal holidays, Tenant shall request such service prior to 5:00 p.m. on the preceding Friday (or 5:00 p.m. on the preceding business day in the case of desired service on a legal holiday). In the event Tenant requires after-hours HVAC service on regular business days (*i.e.*, service after 7:00 p.m.), Tenant shall give notice to Landlord on or before 5:00 p.m. of such business day. The services and utilities required to be furnished by Landlord, other than electricity and water, will be provided only during the normal hours of operation of the Building, except as otherwise specified herein. It is agreed that if Tenant requires HVAC beyond the normal hours of operation set forth herein, Landlord will furnish such HVAC, provided Tenant gives Landlord's agent sufficient advance notice of such requirement (as set forth above) and Tenant agrees to pay for the cost of such overtime HVAC in accordance with Landlord's then current schedule of costs and assessments for such HVAC as charged to other tenants in the Building. Landlord agrees to provide an access-control system in the Building comparable to the system in Class A office and retail buildings in the Market Area, which shall permit Tenant to have access to the Premises on a 24-hour, seven-days-a-week basis (except in the event of emergency). Landlord shall, at its cost, provide an initial set of cards, fobs or similar access devices to the Building in an amount equal to the number of initial employees of Tenant who work at the Premises as of the Lease Commencement Date in an aggregate amount not to exceed four (4) access cards for each 1,000 square feet of above grade rentable area in the Premises; provided, however, that any replacement or additional devices requested by Tenant after the Lease Commencement Date shall be provided by Landlord and Tenant shall reimburse Landlord for Landlord's cost therefor.

Tenant shall have the right to install Tenant's security systems, fixtures and mechanisms to restrict access to the Premises, subject to Landlord's reasonable approval and otherwise subject to the terms of Article 9. Landlord reserves the right to temporarily close common areas, or portions thereof (including, but not limited to, any fitness facility, outdoor areas and rooftop) to the extent reasonably required for purposes of repair, cleaning, maintenance and/or renovations. Notwithstanding anything to the contrary contained herein, if (i) Landlord closes any portion of the common areas of the Building for a period of more than two (2) consecutive business days, (ii) such closure is not the result of any act of Tenant or its Invitees or of strikes, unavailability of parts or other materials, or any other cause beyond Landlord's control, and (iii) such closure renders the Premises inaccessible and untenantable by Tenant and the Premises is not used or occupied by Tenant, then, as Tenant's sole and exclusive remedy therefor, Tenant shall be entitled to a pro rata abatement of base rent beginning on the first (1st) business day that the Premises is so inaccessible and untenantable (and not used or occupied) and continuing until the Premises is rendered accessible or tenantable (or Tenant recommences using or occupying the Premises).

14.2 (a) It is understood and agreed that Landlord shall not have any liability to Tenant whatsoever as a result of Landlord's failure or inability to furnish any of the utilities or services required to be furnished by Landlord hereunder, whether resulting from breakdown, removal from service for maintenance or repairs, strikes, scarcity of labor or materials, acts of God, governmental requirements, or any other cause whatsoever. It is further agreed that any such failure or inability to furnish the utilities or services required hereunder shall not be considered an eviction, actual or constructive, of Tenant from the Premises, and shall not entitle Tenant to terminate this Lease or to an abatement of any rent payable hereunder.

(b) Notwithstanding the provisions of Section 14.2(a) to the contrary, if (i) the services described in Section 14.1 hereof are interrupted for a period of more than three (3) consecutive business days as a result of Landlord's (or its agents' or employees') negligence or willful misconduct, (ii) such interruption is not the result of any act of Tenant or its Invitees or of strikes, unavailability of parts or other materials, or any other cause beyond Landlord's control, and (iii) such interruption renders all or any portion of the Premises untenantable by Tenant and the Premises or such portion thereof are not used or occupied by Tenant, then, as Tenant's sole and exclusive remedy therefor, Tenant shall be entitled to a pro rata abatement of rent beginning on the first (1st) business day that the Premises or any portion thereof are unusable (and not used or occupied) and continuing until the Premises or such portion thereof is rendered tenantable (or Tenant recommences using or occupying the Premises or such portion thereof).

14.3 Landlord will use its commercially reasonable efforts to cause the restoration of any interrupted utility services; further, should any base building equipment or machinery break down so as to render the Premises unusable by Tenant, Landlord shall promptly repair or replace it (subject to delays which result from strikes, unavailability of parts or other materials, or other matters beyond Landlord's reasonable control).

14.4 The parties hereto agree to comply with all energy conservation controls and requirements applicable to office and retail buildings that are imposed or instituted by the Federal, state or local governments, having jurisdiction over the Building, including without limitation, controls on the permitted range of temperature settings in office and retail buildings, and requirements necessitating curtailment of the volume of energy consumption or the hours of operation of the Building. Any terms or conditions of this Lease that conflict or interfere with compliance with such controls or requirements shall be suspended for the duration of such controls or requirements. It is further agreed that compliance with such controls or requirements shall not be considered an eviction, actual or constructive, of Tenant from the Premises and shall not entitle Tenant to terminate this Lease or to an abatement of any rent payable hereunder.

14.5 Tenant shall reimburse Landlord for any excess water usage in the Premises. "**Excess water usage**" shall mean the excess of Tenant's water usage during any billing period for water services over the estimated average water usage during the same period for all office tenants of the Building (excluding Tenant), as computed by Landlord. If Tenant connects into Landlord's supplemental cooling system currently located (or to be located) on the roof of the Building, then Tenant shall reimburse Landlord for all reasonable and actual costs incurred by Landlord therefor, as reasonably determined by Landlord. Tenant shall reimburse Landlord for any excess usage of supplemental condenser water, which excess usage shall be paid for by Tenant in the same manner and subject to similar conditions as apply to excess water usage and electricity usage pursuant to this Section 14.5.

14.6 The Building (including the roof deck and the Parking Garages) is a non-smoking facility. Tenant agrees to adhere to Landlord's rules and regulations pertaining to such policy (as the same may be amended from time to time, provided Tenant receives written notice thereof), as set forth in the Building's Rules and Regulations, a current copy of which are attached hereto as Exhibit C.

14.7 Subject to applicable Legal Requirements and governmental and quasi-governmental prohibitions and/or restrictions, for so long as Tenant is a tenant in the Building and the fitness facility in the Complex remains open to office tenants of the Complex, Tenant's employees who work in the Building shall have the nonexclusive right (subject to reasonable rules and regulations and reasonable fees) to use the fitness facility. Landlord shall, for the Lease Term, continually operate and maintain the fitness facility. The fitness facility shall be available to Tenant's employees who work in the Building on a regular basis on a non-exclusive first-come, first-served basis. Landlord may specifically condition the use of the fitness facility by any person upon such person's execution of a written waiver and release holding Landlord harmless from any and all liability, damage, expense, cause of action, suit, claim, judgment and cost of defense arising from injury to such employee or guest occurring in the fitness facility or resulting from the use thereof. Neither Landlord nor Landlord's agents or partners, shall have any liability to Tenant or its Invitees for any damage, injury, loss, expense, compensation or claim whatsoever arising out of the use of the fitness facility. Tenant may (pursuant to any requirements Tenant may choose to impose) permit its employees to employ personal trainers, whom are qualified to perform the activities associated with training individuals on a one-on-one basis and whom have been certified in the fitness industry by a nationally recognized certification program ("**Trainers**"), to work with Tenant's employees, only, on a one-on-one basis in the Building's fitness facility. Prior to performing any activities in the Building each Trainer shall execute Landlord's then standard written waiver and release as described above.

14.8 Tenant and its employees may bring bicycles into the Premises provided that the bicycles are brought into the Premises through the Building Service elevator.

14.9 Unless otherwise expressly provided in this Lease, costs for the services and utilities required to be furnished and/or performed by Landlord that are described in this Article XIV shall be passed through to Tenant as an Operating Expense to the extent permitted pursuant to Article IV hereof.

14.10 (a) Landlord agrees to use commercially reasonable and legally compliant efforts to ensure that the personnel of Landlord's contractor performing cleaning services in the Premises (i) are not Non-US Persons, and (ii) have been subject to a background check consistent with commercially reasonable practices. For purposes of this Lease, the term "Non-US Person" shall be consistent with the definition provided in 8 U.S.C. Section 1334b(a)(3), as amended or replaced from time to time, which currently provides that a "Non-US Person" is anyone who is not: (i) a U.S. Citizen or national, (ii) an alien lawfully admitted for permanent residence in the U.S. (i.e. an alien possessing a valid Form I-550 known as a "green card"), (iii)

an alien resident in the U.S. since 1982 and subject to the 1986 amnesty statue, (iv) a recipient of official asylum or refugee status, or (v) an alien lawfully admitted for temporary employment in connection with certain agricultural jobs as defined in 8 U.S.C. Section 1324b(a)(3)(i.e. migrant workers). Tenant shall pay, within thirty (30) days after request therefor, all actual third-party incremental increases in costs incurred by Landlord in connection with Landlord's compliance with this paragraph.

(b) If Landlord changes janitorial service providers after the Effective Date, in lieu of Landlord's obligation to provide janitorial services for the Premises pursuant to Section 14.1(a) above, Tenant shall have the right, upon at least thirty (30) days prior written notice thereof to Landlord, to separately contract for the provision of all janitorial services for the Premises at Tenant's sole cost and expense, effective as of the date specified by Tenant in such notice, which date shall be no earlier than thirty (30) days after the date of such notice. In such event, (A) Tenant shall be solely responsible for the cost of all janitorial services it provides for the Premises, including without limitation, in the event Tenant chooses to provide its own day porter services, such day porter services and the replenishment of restroom supplies for the core area restrooms on all floors on which Tenant leases the entire rentable area, (B) Tenant's proportionate share of Operating Expenses shall continue to include all janitorial costs as Landlord incurs in connection with the Building less the savings for any evening cleaning provided by Tenant (but in all events including the cost for day porter services even if Tenant provides its own day porter services), (C) Base Year Operating Expenses shall be reduced by the cost of providing evening janitorial services for the Premises only incurred by Landlord in the Base Year and included in Operating Expenses and (D) the provisions of Section 4.2 shall otherwise apply to cause an equitable adjustment to the Operating Expenses. In addition, Tenant's janitorial services (I) shall not interfere with Landlord's janitorial services or with the Building operations, (II) shall be performed in a manner consistent with janitorial services provided to comparable Class A office buildings in the Market Area, (III) shall be subject to Landlord's reasonable rules and regulations, and (IV) shall include, at a minimum, the janitorial specifications as set forth in Exhibit E attached hereto that are applicable to leasable space. During any period in which Tenant provides janitorial services for the Premises, Tenant shall require its janitorial vendor to provide written documentation evidencing the obligation of such vendor to indemnify the Landlord Parties to the same extent that Tenant is required to indemnify the Landlord Parties pursuant to Section 13.1 above, and to maintain insurance that meets the requirements of Article XIII, provided that the terms hereof shall not relieve Tenant of any of its obligations to comply with the requirements of Article XIII. Tenant shall require all such janitorial vendors to supply certificates of insurance evidencing that the insurance requirements of Article XIII have been met and shall forward such certificates to Landlord on or before the date on which the vendor first enters the Premises. Tenant shall be responsible for identifying and remedying any deficiencies in such certificates or policy provisions.

14.11 Tenant shall have the right to install supplemental heating, ventilation and air conditioning unit(s) (the "**Supplemental HVAC Units**") at the Premises, subject to Landlord's approval of the plans and specifications in connection therewith pursuant to Article 9. If the Premises or any portion thereof is at any time served by Supplemental HVAC Units, (i) Tenant, at Tenant's expense, shall install an electric submeter for the Supplemental HVAC Unit(s) concurrently with Tenant's installation of such Supplemental HVAC Unit(s) and pay to Landlord all electricity charges (including any taxes and other fees associated with such electricity charges) measured on such submeter within thirty (30) days after receipt of an invoice therefor; (ii) Tenant shall reimburse Landlord for all reasonable and actual costs incurred by Landlord in connection with Tenant connecting Supplemental HVAC Units to Landlord's base Building condenser water loop in accordance with Section 14.5, (iii) Tenant, at Tenant's expense, shall at all times maintain a Supplemental HVAC Unit(s) service contract with a firm and upon such terms as may be reasonably satisfactory to Landlord, and Tenant shall provide Landlord with such documentation and other evidence as Landlord might reasonably request from time to time

to demonstrate Tenant's proper maintenance of the Supplemental HVAC Unit(s), and (iv) in no event shall Landlord be liable for, and Tenant hereby waives any claim for, any losses and other damages (whether direct, indirect, consequential or punitive damages, including loss of profits or business opportunity) to persons, property, equipment or otherwise arising in connection with the Base Building HVAC System including any failure of the base Building condenser water loop and/or any equipment related thereto to operate as such loop and/or equipment was designed to operate and regardless of the cause of such failure.

ARTICLE XV
DEFAULT AND LIABILITY OF LANDLORD

15.1 Except as specifically provided in the last sentence of this Section 15.1 and except as specifically provided in the Lease, Landlord shall not be liable to Tenant or to its Invitees for any damage, injury, loss, compensation or claim, including but not limited to claims for the interruption of or loss to Tenant's business, based on, arising out of, or resulting from any cause whatsoever, including but not limited to the following: repairs to any portion of the Premises or the Building; interruption in the use of the Premises; any accident or damage resulting from the use or operation (by Landlord, Tenant or any other person or persons) of elevators, or of the heating, cooling, electrical or plumbing equipment or apparatus; the termination of this Lease by reason of the destruction of the Premises or the Building; any fire, robbery, theft, mysterious disappearance or any other casualty; the actions of any other tenants of the Building or of any other person or persons; and any leakage in any part or portion of the Premises or the Building, or from water, rain or snow that may leak into, or flow from, any part of the Premises or the Building, or from drains, pipes or plumbing fixtures in the Building. Any goods, property or personal effects stored or placed by Tenant or its employees in or about the Premises or the Building shall be at the sole risk of Tenant, and Landlord shall not in any manner be held responsible therefor. It is understood that the employees of Landlord are prohibited from receiving any packages or other articles delivered to the Building for Tenant, and if any such employee receives any such package or articles, such employee shall be acting as the agent of Tenant for such purposes and not as the agent of Landlord. Notwithstanding the foregoing provisions of this Section 15.1 to the contrary, Landlord shall not be released from liability to Tenant for damage or injury caused by the gross negligence or willful misconduct of Landlord or its employees; provided, however, in no event shall Landlord have any liability to Tenant for any claims based on the interruption of or loss to Tenant's business or for any indirect losses or consequential damages or punitive damages or other special damages whatsoever.

15.2 In the event that at any time Landlord shall sell or transfer title to the Building, provided the purchaser or transferee assumes in writing the obligations of Landlord hereunder arising from and after the date of the transfer, Landlord named herein shall not be liable to Tenant for any obligations or liabilities based on or arising out of events or conditions occurring on or after the date of such sale or transfer. Furthermore, Tenant agrees to attorn to any such purchaser or transferee upon all the terms and conditions of this Lease.

15.3 In the event that Tenant shall have a claim against Landlord, Tenant shall not have the right to deduct the amount allegedly owed to Tenant from any rent or other sums payable to Landlord hereunder, it being understood that Tenant's sole remedy for recovering upon such claim shall be to institute an independent action against Landlord.

15.4 Tenant agrees that in the event Tenant is awarded a money judgment against Landlord, Tenant's sole recourse for satisfaction of such judgment shall be limited to execution against the estate and interest of Landlord in the Building. Except as otherwise specifically provided herein, in no event shall any other assets of Landlord, any partner of Landlord, the holder of any mortgage (or anyone claiming by through or under such holder) or any other person or entity be available to satisfy, or be subject to, such judgment, nor shall any partner of

Landlord or any such other person or entity be held to have any personal liability for satisfaction of any claims or judgments that Tenant may have against Landlord or any partner of Landlord in such partner's capacity as a partner of Landlord. In the event Tenant obtains a final nonappealable judgment against Landlord, but is unable to collect after reasonable collection efforts because Landlord has no equity in the Building, or is otherwise judgment proof, Tenant, at its option, may offset the judgment against its rental obligations hereunder.

15.5 In the event that Landlord fails to perform any maintenance or repair obligations of Landlord under this Lease with respect to the Premises (such failure, a "**Delayed Repair**"), and, except in the case of an emergency, (a) such failure shall continue for a period of fifteen (15) days after receipt of written notice from Tenant to Landlord and any lender of Landlord ("**First Repair Self Help Notice**") or, if such failure cannot reasonably be cured within fifteen (15) days, then such longer period as may be required for such cure provided that Landlord commences such cure within such fifteen (15) day period and diligently pursues such cure to completion, and (b) such failure shall continue for three (3) business days after receipt of an additional written notice from Tenant to Landlord and any lender of Landlord following the expiration of the period described in clause (b) above ("**Second Repair Self Help Notice**"), and (c) Landlord has not disputed in writing that it has failed to perform any maintenance or repair obligation of Landlord under this Lease, then Landlord shall reimburse Tenant for either (x) a portion of the reasonable costs and expenses actually incurred by Tenant in curing such Delayed Repair, in an amount equal to the difference between such total costs and expenses actually incurred by Tenant less Tenant's proportionate share of such costs and expenses, if and to the extent such expenses are includable as Operating Expenses pursuant to Article IV hereof or (y) the reasonable costs and expenses actually incurred by Tenant in curing such Delayed Repair, if such expenses are not so includable as Operating Expenses (as applicable, the "**Excess Repair Costs**") within thirty (30) days after Landlord has received from Tenant an invoice therefor (and Tenant has provided a copy of same to any lender of Landlord). Any Excess Repair Costs so reimbursed to Tenant by Landlord shall not be includable in the Operating Expenses payable by Tenant pursuant to Article IV above. The First Repair Self Help Notice and the Second Repair Self Help Notice each shall include a statement that Tenant intends to exercise this right to self help and shall identify in reasonable detail the basis for the self help and the actions Tenant intends to undertake to perform the Delayed Repair. Further notwithstanding anything to the contrary contained in this Lease, Tenant's right to perform any such self help pursuant to this Section 15.5 is conditioned upon strict compliance by Tenant with the following requirements: Tenant shall ensure that (i) all such work shall be performed solely by contractors, subcontractors and design consultants, as applicable, who are bonded, licensed in the Commonwealth of Virginia, qualified and recognized as reputable within their field, (ii) each entity performing such work shall have obtained public liability and worker's compensation insurance policies covering all persons who will perform such work in amounts customary for comparable work in buildings comparable to the Building, and (iii) all such work shall be performed in a good, workmanlike, first-class and prompt manner, in accordance with any rules for contractors that may be established by Landlord from time to time, and in accordance with all Legal Requirements and the requirements of any insurance company insuring the Building or any portion thereof. Further notwithstanding anything to the contrary contained in this Lease, the self help right provided to Tenant under this Section 15.5 shall not be applicable to any repair or maintenance obligations that affect the Building structure or systems.

ARTICLE XVI
RULES AND REGULATIONS

16.1 Tenant and its Invitees shall at all times abide by and observe the Rules and Regulations attached hereto as Exhibit C. In addition, Tenant and its Invitees shall abide by and observe all other rules or regulations that Landlord may promulgate from time to time for the operation and maintenance of the Building, provided that written notice thereof is given to

Tenant and such rules and regulations are not inconsistent with the provisions of this Lease. Nothing contained in this Lease shall be construed as imposing upon Landlord any duty or obligation to enforce such rules and regulations, or the terms, conditions or covenants contained in any other lease, as against any other tenant, and Landlord shall not be liable to Tenant or its Invitees for the violation of such rules or regulations by any other tenant or such other tenant's employees, agents, invitees, licensees, customers, subtenants, contractors, clients, family members or guests. Landlord shall use reasonable efforts to enforce all such rules and regulations including any exceptions thereto, uniformly and in a manner which does not unreasonably discriminate against Tenant, although it is understood that Landlord may grant exceptions to such rules and regulations in circumstances in which it reasonably determines such exceptions are warranted. If there is any inconsistency between this Lease and the Rules and Regulations set forth in Exhibit C, this Lease shall govern.

ARTICLE XVII
DAMAGE OR DESTRUCTION

17.1 (a) Subject to subparagraphs (c) and (d) below, if the Premises or the Building are totally or partially damaged or destroyed from any cause, thereby rendering the Premises totally or partially inaccessible or untenantable, Landlord shall diligently (taking into account the time necessary to effectuate a satisfactory settlement with any insurance company involved) restore and repair the Premises and/or the Building to substantially the same condition they were in prior to such damage or destruction.

(b) Within forty-five (45) days after the occurrence of such damage or destruction (the "**Determination Period**"), Landlord will provide Tenant, in writing (the "**Restoration Notice**"), with a good faith estimate of the date by which the repairs and restoration will be completed, including the time needed for removal of debris, preparation of plans, bidding of contracts, and issuance of all required governmental permits.

(c) If, in the sole judgment of an independent third party selected by Landlord, the repairs and restoration cannot be completed within 180 days after the occurrence of such damage or destruction, including the time needed for removal of debris, preparation of plans, bidding of contracts, and issuance of all required governmental permits, Landlord shall have the right, at its sole option, to terminate this Lease by giving written notice to Tenant at any time prior to the expiration of the Determination Period.

(d) Additionally, if, in the sole judgment of an independent third party selected by Landlord, the Building is damaged or destroyed from any cause to such an extent that the costs of repairing and restoring the Building would exceed fifty percent (50%) of the replacement value of the Building at the time of such damage or destruction, whether or not the Premises are damaged or destroyed, then Landlord shall have the right, at its sole option, to terminate this Lease by giving written notice of termination to Tenant at any time prior to the expiration of the Determination Period.

17.2 If the Restoration Notice provides that the repairs and restoration cannot be substantially completed within 180 days after the occurrence of such damage or destruction, then Tenant shall have the right to terminate this Lease by providing written notice to Landlord within thirty (30) days after the date of the Restoration Notice. Notwithstanding the foregoing, Tenant shall not have the right to terminate this Lease if the act or omission of Tenant, or any Tenant Party, shall have caused the damage or destruction.

17.3 If this Lease is terminated pursuant to this Article XVII, all rent payable hereunder shall be apportioned and paid to the date of the occurrence of such damage or destruction and Tenant shall have no further rights or remedies against Landlord pursuant to this

Lease, or otherwise. If this Lease is not terminated pursuant to the terms of this Article XVII, and provided that such damage or destruction was not caused by the act or omission to act of Tenant, or any Tenant Party, until the repair and restoration of the Premises is completed, Tenant shall be required to pay annual base rent and additional rent only for that portion of the Premises that Tenant is able to use while repairs are being made, based on the ratio that the amount of rentable area in the usable portion of the Premises bears to the total rentable area of the Premises.

17.4 If this Lease is not terminated as provided in this Article XVII, Landlord shall proceed to diligently repair and restore the Premises (including the Leasehold Work) and/or the Building using (i) the proceeds of Landlord's insurance (covering damage to the Building and to the Leasehold Work up to the amount of the Improvement Allowance (as defined in Exhibit B), and (ii) the proceeds of Tenant's insurance (covering the Leasehold Work in excess of the amount of the Improvement Allowance). Tenant shall be required to repair and restore at its sole expense all decorations, trade fixtures, furnishings, equipment and personal property installed by or belonging to Tenant. In connection with any restoration of the Leasehold Work, Landlord shall perform the Leasehold Work, and Landlord shall be obligated to pay for the cost of the Leasehold Work only up to the amount of the Improvement Allowance. Tenant shall reimburse Landlord (within thirty (30) days of receipt of written demand therefor, including valid invoices) for the reasonable, actual and documented cost of any Leasehold Work above the amount of the Improvement Allowance. In the event that Landlord commences repairs and does not complete the same within thirty (30) days following the date by which Landlord indicated in its Restoration Notice that the repairs would be complete, Tenant shall have the right to terminate this Lease.

17.5 Notwithstanding anything provided herein to the contrary, Landlord shall not be obligated to restore the Premises and/or the Building if (i) the damage or destruction was not caused by an insurable event, or (ii) the estimated cost of such repair or restoration, based on the report of an independent third party selected by Landlord, exceeds the amount of insurance proceeds available to Landlord for such repair or restoration (provided Landlord maintained such insurance as required pursuant to the terms of this Lease). This right of termination shall be in addition to any other right of termination provided in this Lease.

ARTICLE XVIII
CONDEMNATION

18.1 If the whole or a substantial part (as hereinafter defined) of the Building or the Premises, or the use or occupancy of a substantial part of the Premises, shall be taken or condemned by any governmental or quasi-governmental authority for any public or quasi-public use or purpose (including a sale thereof under threat of such a taking), then this Lease shall terminate on the date title thereto vests in such governmental or quasi-governmental authority, and all rent payable hereunder shall be apportioned as of such date. If less than a substantial part of the Premises, or the use or occupancy thereof, is taken or condemned by any governmental or quasi-governmental authority for any public or quasi-public use or purpose (including a sale thereof under threat of such a taking), this Lease shall continue in full force and effect, but the annual base rent and additional rent thereafter payable hereunder shall be equitably adjusted (on the basis of the ratio of the number of square feet of rentable area taken to the total rentable area of the Premises prior to such taking) as of the date title vests in the governmental or quasi-governmental authority. For purposes of this Section 18.1, a "**substantial part**" of the Building or the Premises shall be considered to have been taken if, respectively, more than one-third (1/3) of the Building or the Premises is rendered untenantable as a result of such taking.

18.2 All awards, damages and other compensation paid by the condemning authority on account of such taking or condemnation (or sale under threat of such taking) shall belong to Landlord, and Tenant hereby assigns to Landlord all rights to such awards, damages and

compensation. Tenant agrees not to make any claim against Landlord or the condemning authority for any portion of such award or compensation attributable to damage to the Premises, the value of the unexpired term of this Lease, the loss of profits or goodwill, leasehold improvements or severance damages. Nothing contained herein, however, shall prevent Tenant from pursuing a separate claim against the condemning authority for the value of furnishings, equipment and trade fixtures installed in the Premises at Tenant's expense and for relocation expenses, provided that such claim does not in any way diminish the award or compensation payable to or recoverable by Landlord in connection with such taking or condemnation.

ARTICLE XIX
DEFAULT BY TENANT

19.1 In addition to those events or occurrences described in this Lease as an Event of Default, the occurrence of any of the following shall constitute an "**Event of Default**" by Tenant under this Lease:

(a) If Tenant shall fail to pay any installment of annual base rent, additional rent or any other sums required by this Lease when due, and such failure shall remain uncured for a period of five (5) days after Landlord notifies Tenant in writing of such failure; provided, however, that Landlord shall not be required to give Tenant more than two (2) such written notices in any twelve (12) month period (after which time nonpayment within five (5) days of the date due without any such written notice shall constitute an Event of Default).

(b) If Tenant shall violate or fail to perform any other term, condition, covenant or agreement to be performed or observed by Tenant under this Lease and such violation or failure shall continue uncured for a period of thirty (30) days after Landlord notifies Tenant of such violation or failure in writing and with specificity**.** If such violation or failure is not capable of being cured within such thirty (30) day period, then provided Tenant commences curative action within such thirty (30) day period and proceeds diligently and in good faith thereafter to cure such violation or failure, such cure period shall be extended for a reasonable time not to exceed ninety (90) days.

(c) If Tenant shall assign its interest in this Lease or sublet any portion of the Premises in violation of the requirements of Article VII of this Lease.

(d) [Intentionally omitted]

(e) If Tenant permits any liens to continue on the Premises, or any part thereof, beyond the periods set forth herein.

(f) If an Event of Bankruptcy, as defined in Section 20.1 of this Lease, shall occur.

(g) If an Environmental Default, as defined in Section 6.4 of this Lease, shall occur.

19.2 (a) If there shall be an Event of Default, then the provisions of this Section 19.2 shall apply. Landlord shall have the right, at its sole option, to terminate this Lease. In addition, with or without terminating this Lease, Landlord may reenter, terminate Tenant's right of possession and take possession of the Premises. The provisions of this Article shall operate as a notice to quit, and Tenant hereby waives any other notice to quit or notice of Landlord's intention to reenter the Premises or terminate this Lease. If necessary, Landlord may proceed to recover possession of the Premises under the applicable Legal Requirements, or by such other proceedings, including reentry and possession, as may be applicable. If Landlord elects to

terminate this Lease and/or elects to terminate Tenant's right of possession, everything contained in this Lease required to be done or performed by Landlord shall cease, without prejudice. However, Tenant's liability for all base rent, additional rent and other sums due under this Lease shall not cease. Whether or not this Lease and/or Tenant's right of possession is terminated, Landlord shall have the right, at its sole option, to terminate any renewal or expansion right contained in this Lease and to grant or withhold any consent or approval pursuant to this Lease in its sole and absolute discretion. Landlord shall use reasonable efforts to relet the Premises or any part thereof, alone or together with other premises, for such term(s) (which may extend beyond the date on which the Lease Term would have expired but for Tenant's default) and on such terms and conditions (which may include any concessions or allowances granted by Landlord) as Landlord, in its sole and absolute discretion, may determine, but Landlord shall not be liable for, nor shall Tenant's obligations hereunder be diminished by reason of, any failure by Landlord to relet all or any portion of the Premises or to collect any rent due upon such reletting.

(b) Whether or not this Lease and/or Tenant's right of possession is terminated or any suit is instituted, Tenant shall be liable for any base rent, additional rent, damages or other sum which may be due or sustained prior to such Event of Default, and for all costs, fees and expenses (including, but not limited to, reasonable attorneys' fees and costs, brokerage fees, expenses incurred in enforcing any of Tenant's obligations under this Lease or in placing the Premises in Class A rentable condition, advertising expenses, and any concessions or allowances granted by Landlord) incurred by Landlord in pursuit of its remedies hereunder and/or in recovering possession of the Premises and renting the Premises to others from time to time plus other damages suffered or incurred by Landlord on account of such Event of Default (including, but not limited to late fees or other charges incurred by Landlord under any mortgage). Tenant also shall be liable for additional damages which at Landlord's election shall be either one of the following:

(i) an amount equal to the Base Rent and additional rent due or which would have become due from the date of such Event of Default through the remainder of the Lease Term, plus all expenses (including reasonable and actual broker and attorneys' fees) incurred in connection with the reletting of the Premises, less the amount of rental income, if any, which Landlord actually receives during such period from others to whom Landlord may (but is not required to) relet the Premises, other than any additional rent received by Landlord as a result of any failure of such other person to perform any of its obligations to Landlord, which amount shall be computed and payable in monthly installments, in advance, on the first day of each calendar month following such Event of Default and continuing until the date on which the Lease Term would have expired but for such Event of Default, it being understood that separate suits may be brought, at Landlord's discretion, from time to time to collect any such damages for any month(s) (and any such separate suit shall not in any manner prejudice the right of Landlord to collect any damages for any subsequent month(s)), or Landlord may defer initiating any such suit until after the expiration of the Lease Term (in which event such deferral shall not be construed as a waiver of Landlord's rights as set forth herein and Landlord's cause of action shall be deemed for limitations purposes not to have accrued until the expiration of the Lease Term), and it being further understood that if Landlord elects to bring suits from time to time prior to reletting the Premises, Landlord shall be entitled to its full damages through the date of the award of damages without regard to any Base Rent, additional rent or other sums that are or may be projected to be received by Landlord upon reletting of the Premises; or

(ii) an amount equal to the sum of (a) all base rent, additional rent and other sums due or which would be due and payable under this Lease as of the date of such Event of Default through the end of the scheduled Lease Term, plus (b) all expenses (including broker and attorneys' fees) incurred in connection with the reletting of the Premises, minus (c) any base rent, additional rent and other sums which Tenant proves by a preponderance of the evidence

would be received by Landlord upon reletting of the Premises from the end of the vacancy period projected by Landlord through the expiration of the scheduled Lease Term; or

(iii) an amount equal to the product of (x) all base rent, additional rent and other sums due or which would be due and payable under this Lease as of the date of such Event of Default through the end of the scheduled Lease Term, multiplied by (y), with (y) equal to: .75 if there are more than 10 years remaining on the Lease Term; .80 if there are more than five but fewer than 10 years remaining on the Lease Term; or .90 if there are fewer than five years remaining on the Lease Term, it being understood that such amount constitutes a liquidated and final damage amount, which was negotiated by the parties and is designed to approximate to the best of the parties' abilities the damage to the Landlord as a result of Tenant's default, and does not constitute a penalty.

The damage amounts calculated under either option (ii) or option (iii) shall be accelerated and discounted using a discount factor equal to the yield of the Treasury Note or Bill, as appropriate, having a maturity period approximately commensurate to the remainder of the Lease Term, and such resulting amount shall be payable to Landlord in a lump sum on demand, and Landlord may bring suit to collect any such damages at any time after an Event of Default if Tenant does not make such payment on demand, it being understood that upon payment of such liquidated and agreed final damages, Tenant shall be released from further liability under this Lease with respect to the period after the date of such payment.

(c) In the event Landlord relets the Premises together with other premises or for a term extending beyond the scheduled expiration of the Lease Term, Tenant shall not be entitled to apply any base rent, additional rent or other sums generated or projected to be generated by either such other premises or in the period extending beyond the scheduled expiration of the Lease Term (collectively, "**Extra Rent**") against Landlord's damages. Similarly, in proving the amount that would be received by Landlord upon a reletting of the Premises as set forth in subparagraph (b) above, Tenant shall not take into account the Extra Rent. Nothing herein shall be construed to affect or prejudice Landlord's right to prove, and claim in full, unpaid rent accrued prior to termination of this Lease. If Landlord is entitled, or Tenant is required, pursuant to any provision hereof to take any action upon the termination of the Lease Term, then Landlord shall be entitled, and Tenant shall be required, to take such action also upon the termination of Tenant's right of possession.

19.3 (a) Tenant hereby expressly waives, for itself and all persons claiming by, through or under it, any right of redemption, reentry or restoration of the operation of this Lease under any present or future Legal Requirements, including without limitation any such right which Tenant would otherwise have in case Tenant shall be dispossessed for any cause, or in case Landlord shall obtain possession of the Premises as herein provided.

(b) All rights and remedies of Landlord set forth herein are in addition to all other rights and remedies available to Landlord hereunder or at law or in equity. All rights and remedies available to Landlord hereunder or at law or in equity are expressly declared to be cumulative. The exercise by Landlord of any such right or remedy shall not prevent the concurrent or subsequent exercise of any other right or remedy. No delay in the enforcement or exercise of any such right or remedy shall constitute a waiver of any default by Tenant hereunder or of any of Landlord's rights or remedies in connection therewith. Landlord shall not be deemed to have waived any default by Tenant hereunder unless such waiver is set forth in a written instrument signed by Landlord. If Landlord waives in writing any default by Tenant, such waiver shall not be construed as a waiver of any covenant, condition or agreement set forth in this Lease except as to the specific circumstances described in such written waiver.

19.4 If Landlord shall institute proceedings against Tenant and a compromise or settlement thereof shall be made, the same shall not constitute a waiver of default or of any other covenant, condition or agreement set forth herein, nor of any of Landlord's rights hereunder. Neither the payment by Tenant of a lesser amount than the installments of annual base rent, additional rent or of any sums due hereunder nor any endorsement or statement on a check or letter accompanying a check for payment of rent or other sums payable hereunder shall be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such rent or other sums or to pursue any other remedy available to Landlord. No re-entry by Landlord, and no acceptance by Landlord of keys from Tenant, shall be considered an acceptance of a surrender of this Lease.

19.5 If Tenant defaults in the making of any payment or in the doing of any act herein required to be made or done by Tenant, then Landlord may, but shall not be required to, make such payment or do such act. If Landlord elects to make such payment or do such act, all costs and expenses incurred by Landlord, plus interest thereon at the rate per annum ("**Default Rate**") which is two percent (2%) higher than the publicly announced "prime rate" then being reported by the Bank of America, from the date paid by Landlord to the date of payment thereof by Tenant, shall be immediately paid by Tenant to Landlord; provided, however, that nothing contained herein shall be construed as permitting Landlord to charge or receive interest in excess of the maximum legal rate then allowed by law. The taking of such action by Landlord shall not be considered as a cure of such default by Tenant or prevent Landlord from pursuing any remedy it is otherwise entitled to in connection with such default.

19.6 If Tenant fails to make any payment of base rent or of additional rent on or before the date such payment is due and payable, Tenant shall pay to Landlord a late charge of five percent (5%) of the amount of such payment. In addition, such payment shall bear interest at the Default Rate from the date such payment became due to the date of payment thereof by Tenant; provided, however, that nothing contained herein shall be construed as permitting Landlord to charge or receive interest in excess of the maximum legal rate then allowed by law. Such late charge and interest shall constitute additional rent due and payable hereunder with the next installment of annual base rent due hereunder. Notwithstanding the foregoing, the late charge shall be waived for the first late payment during each calendar year (not to exceed five (5) such waivers during the Lease Term), provided that such payment is made within five (5) business days of Tenant's receipt of Landlord's written notice.

19.7 Landlord hereby waives any lien rights which it may otherwise have concerning Tenant's property, which shall include furniture, fixtures, equipment, any and all equipment and/or supplies utilized by Tenant in its business operations and Tenant shall have the right to remove the same at any time without Landlord's consent.

19.8 In the event either Landlord or Tenant shall employ an attorney to enforce the other party's covenants and obligations under this Lease, whether or not Landlord proceeds to recover possession or Landlord or Tenant commence any other proceeding against the other party, the non-prevailing party shall be liable for all costs and expenses sustained by the prevailing party in the enforcement of such covenants and obligations, including but not limited to attorneys' fees and expenses, costs of collection and court costs.

ARTICLE XX
BANKRUPTCY

20.1 Each of the following shall be an "**Event of Bankruptcy**" under this Lease:

(a) Tenant's or any guarantor's (i) becoming insolvent, as that term is defined in Title 11 of the United States Code ("**Bankruptcy Code**") or under the insolvency laws of any

state, district, commonwealth or territory of the United States ("**Insolvency Laws**"); (ii) generally not paying its debts as they become due unless such debts are the subject of a bona fide dispute, or (iii) inability to pay its debts as they become due;

(b) The appointment of a receiver, trustee, custodian or any similar responsible party or representative for any or all of Tenant's or any guarantor's property or assets, or the institution of a foreclosure, replevin, forfeiture, seizure, attachment, garnishment, or any similar action, proceeding or process upon or against any of Tenant's or any guarantor's real, personal or other property;

(c) The filing by Tenant or any guarantor of a voluntary petition under the provisions of the Bankruptcy Code or Insolvency Laws;

(d) The filing of an involuntary petition against Tenant or any guarantor as the subject debtor under the Bankruptcy Code or Insolvency Laws, which either (i) is not dismissed within thirty (30) days of filing, or (ii) results in the issuance of an order for relief against the debtor; or

(e) Tenant's or any guarantor's making or consenting to an assignment for the benefit of creditors or a common law composition of creditors, or otherwise consenting to the default rights or remedies of Tenant's or any guarantor's other creditors.

ARTICLE XXI
SUBORDINATION

21.1 (a) Subject to the terms of this Article XXI, this Lease and Tenant's rights under this Lease are subject to and subordinate to any ground lease or underlying lease, first mortgage, first deed of trust, or other first lien encumbrance or indenture, together with any renewals, extensions, modifications, consolidations, and replacements of them (each a "**Superior Lien**") that now or hereafter affects the Premises or any interest of Landlord in the Premises or Landlord's interest in this Lease and the estate created by this Lease (except to the extent that the recorded instrument evidencing the Superior Lien expressly provides that this Lease is superior to the Superior Lien). The holder of any Superior Lien shall be referred to herein as a "**Superior Lien Holder**." This Lease shall also be subject and subordinate to the lien of any second or junior mortgages that may hereafter encumber the Building, provided the holder of the first mortgage consents to such subordination. At any time after the execution of this Lease, a Superior Lien Holder shall have the right to declare this Lease to be superior to the lien of its Superior Lien, and Tenant agrees to execute all commercially reasonable documents required by such holder in confirmation thereof.

(b) Landlord represents that there is currently no mortgage or deed of trust on the Building. Landlord shall, at no cost to Tenant, obtain from any future holder of any mortgage or deed of trust on the Building a Subordination Non-Disturbance Agreement ("**SNDA**") on such holder's standard market form that provides that as long as Tenant pays all rent when due and punctually observes all other covenants and obligations on its part to be observed under this Lease, the terms and conditions of this Lease shall continue in full force and effect and Tenant's possession, use and occupancy of the Premises shall not be disturbed during the term of this Lease by the holder of such mortgage or deed of trust or by any purchaser upon foreclosure of such mortgage or deed of trust.

21.2 In confirmation of the foregoing subordination, Tenant shall, at Landlord's request, promptly execute, acknowledge and deliver any requisite or appropriate certificate or other document within ten (10) business days after Landlord's written request. If Tenant fails to execute such certificate or other document within the aforesaid ten (10) business day period,

Landlord shall have the right to provide Tenant with a second notice stating in bold, all capital letters, "**SECOND AND FINAL NOTICE - FAILURE TO RESPOND WITHIN 5 BUSINESS DAYS SHALL CONSTITUTE AN EVENT OF DEFAULT**." If Tenant fails to execute such certificate or other document within five (5) business days following receipt of Landlord's second (2nd) written request therefor, such failure shall constitute an Event of Default and Tenant hereby constitutes and appoints Landlord as Tenant's attorney-in-fact to execute any such certificate or other document for or on behalf of Tenant. Subject to the terms of this Article 21, Tenant agrees that in the event any proceedings are brought for the foreclosure of any mortgage encumbering the Building, Tenant shall attorn to the purchaser at such foreclosure sale, if requested to do so by such purchaser, and shall recognize such purchaser as the landlord under this Lease, and Tenant waives the provisions of any statute or rule of law, now or hereafter in effect, which may give or purport to give Tenant any right to terminate or otherwise adversely affect this Lease and the obligations of Tenant hereunder in the event any such foreclosure proceeding is prosecuted or completed or any deed in lieu obtained. Tenant agrees that upon such attornment, such purchaser shall not (i) be bound by any payment of annual base rent or additional rent for more than one (1) month in advance, except prepayments in the nature of security for the performance by Tenant of its obligations under this Lease, but only to the extent such prepayments have been delivered to such purchaser; (ii) be bound by any amendment of this Lease made without the consent of any lender providing construction or permanent financing for the Building; (iii) be liable for damages for any act or omission of any prior landlord; (iv) be subject to any offsets or defenses which Tenant might have against any prior landlord; (v) be obligated for construction of any improvements otherwise to be constructed by Landlord under this Lease; or (vi) be obligated under any provision of this Lease setting forth terms of indemnification by Landlord of Tenant. After succeeding to Landlord's interest under this Lease, such purchaser shall perform in accordance with the terms of this Lease all obligations of Landlord arising after the date such purchaser acquires title to the Building. Upon request by such purchaser, Tenant shall execute and deliver an instrument or instruments confirming its attornment.

21.3 (a) After receiving written notice from any person, firm or other entity that it holds Superior Lien, no notice from Tenant to Landlord alleging any default by Landlord shall be effective unless and until a copy of the same is given to such Superior Lien Holder; provided, however, that Tenant shall have been furnished with the name and address of such Superior Lien Holder. The curing of any of Landlord's defaults by such Superior Lien Holder shall be treated as performance by Landlord. As of the Effective Date there is no Superior Lien Holder.

(b) In addition to the time afforded Landlord for the curing of any default, any such Superior Lien Holder shall have such additional time as may be necessary given the nature and extent of the default (including such time as may be necessary in order to foreclose the mortgage, deed of trust or other similar security instrument, or obtain a deed in lieu therefor or otherwise obtain possession of the Land and Building) after the expiration of the period allowed to Landlord for the cure of any such default within which to cure such default so long as any such holder, trustee or ground lessor acts continuously and with reasonable diligence.

(c) In the event that any lender providing construction or permanent financing or any refinancing for the Building requires, as a condition of such financing, that modifications to this Lease be obtained, and provided that such modifications (i) are reasonable, (ii) do not adversely affect in a material manner Tenant's use of the Premises as herein permitted and (iii) do not increase the rent and other sums to be paid by Tenant hereunder, and (iv) do not materially increase any other obligation of Tenant or decrease any obligation of Landlord hereunder, Landlord may submit to Tenant a written amendment to this Lease incorporating such required changes, and Tenant hereby covenants and agrees to execute, acknowledge and deliver such amendment to Landlord within ten (10) business days of Tenant's receipt thereof, provided such amendment is reasonably acceptable to Tenant.

ARTICLE XXII
HOLDING OVER

22.1 In the event that Tenant shall not immediately surrender the Premises on the date of the expiration of the Lease Term, without the express consent of the Landlord, Tenant shall become a tenant by the month at a base rent and additional rent equal to one hundred twenty-five percent (125%) of the amount of the annual base rent and all additional rent in effect during the last month of the Lease Term for the first three (3) months of holdover and one hundred fifty percent (150%) thereafter. Said monthly tenancy shall commence on the first day following the expiration of the Lease Term. As a monthly tenant, Tenant shall be subject to all the terms, conditions, covenants and agreements of this Lease. Tenant shall give to Landlord at least thirty (30) days' written notice of any intention to quit the Premises. Tenant shall be entitled to thirty (30) days' written notice to quit the Premises, which notice shall not be given until the expiration of the Lease Term. If Tenant is in an Event of Default under this Lease, Tenant shall not be entitled to any notice to quit, the usual thirty (30) days' notice to quit being hereby expressly waived. Notwithstanding the foregoing provisions of this Section 22.1, in the event that Tenant shall hold over for more than three (3) months after the expiration of the Lease Term, and if Landlord shall desire to regain possession of the Premises promptly at the expiration of the Lease Term, then at any time prior to Landlord's acceptance of rent from Tenant as a monthly tenant hereunder, Landlord, at its option may forthwith re-enter and take possession of the Premises without process, or by any legal process in force in the jurisdiction in which the Building is located.

22.2 Provided that no Event of Default then exists, Tenant may extend the Lease Term for up to three (3) months, on a month-by-month basis (the "**Short Extension Term**"), by delivering Tenant's written extension election notice to Landlord no later than thirteen (13) months prior to the expiration of the then Lease Term, with time being of the essence. The terms and conditions of this Lease during the Short Extension Term shall remain unchanged, except Tenant shall only be entitled to a single Short Extension Term, as a monthly tenant, Tenant shall give to Landlord at least thirty (30) days' written notice of any intention to quit the Premises, the annual base rent for the Short Extension Term shall be one hundred percent (100%) of the annual base rent payable under this Lease immediately prior to the commencement of the Short Extension Term and the Lease Term shall expire on the last day of the Short Extension Term. In no event shall Tenant have any liability to Landlord for any indirect losses or consequential damages or punitive damages or other special damages whatsoever in connection with Tenant's exercise of Tenant's rights under this Section 22.2.

ARTICLE XXIII
COVENANTS OF LANDLORD

23.1 Landlord covenants that it has the right to make this Lease for the term aforesaid, and that if Tenant shall pay all rent when due and punctually perform all the covenants, terms, conditions and agreements of this Lease to be performed by Tenant, Tenant shall, during the term hereby created, freely, peaceably and quietly occupy and enjoy the full possession of the Premises without molestation or hindrance by Landlord or any party claiming through or under Landlord, subject to the provisions of this Lease, including, without limitation, Section 23.2 hereof. Tenant acknowledges and agrees that its leasehold estate in and to the Premises vests on the date this Lease is executed, notwithstanding that the term of this Lease will not commence until a future date.

23.2 Landlord hereby reserves to itself and its successors and assigns the following rights (all of which are hereby consented to by Tenant): (i) to change the street address or name of the Building, by providing at least four (4) months prior written notice to Tenant, or the

arrangement or location of entrances, passageways, doors, doorways, corridors, elevators, stairs, toilets, or other public parts of the Building (provided same does not materially, adversely affect Tenant's use of or access to the Premises) and provided Landlord reimburses Tenant for the reasonable costs incurred as a result thereof, including but not limited to the costs for a reasonable supply of replacements stationary, business cards and promotional materials; (ii) to erect, use and maintain pipes and conduits in and through the concealed portions of the Premises, subject to Section 12.1; (iii) to grant to anyone the exclusive right to conduct any particular legal business or undertaking in the Building provided such right does not conflict with the Permitted Use as set forth in Article VI; (iv) in the event that Tenant vacates the Premises prior to the expiration of the Lease Term, to make alterations to or otherwise prepare the Premises for re-occupancy by another tenant without relieving Tenant of its obligation to pay all base rent, additional rent and other sums due under this Lease through such expiration; and (v) to grant anyone the exclusive right from time to time on a temporary basis to use any portion of the common public areas of the Building (provided it does not materially, adversely affect Tenant's use of or access to the Premises). Landlord may exercise any or all of the foregoing rights without being deemed to be guilty of an eviction, actual or constructive, or a disturbance or interruption of the business of Tenant or of Tenant's use or occupancy of the Premises, provided that Landlord shall give Tenant reasonable prior written notice and agrees not to materially and adversely affect Tenant's use or quiet enjoyment of the Premises or access thereto.

ARTICLE XXIV
PARKING

24.1 Landlord grants (or if the Parking Garages are managed by a parking operating, agrees to cause such to be made available) to Tenant and its employees (whose principal office is located in the Premises) and to Tenant's permitted assignees and subtenants, the right to park standard-sized and compact passenger vehicles, including standard-sized sport utility vehicles, in any of the Parking Garages based on a ratio of 3.5 vehicles per 1,000 square foot of rentable area in the Premises ("**Monthly Parking Permits**"). Tenant's employees and visitors shall be entitled to use the Parking Garages, in common with others entitled thereto, on an unreserved, first-come, first-served basis. Subject to Tenant's right to use the Monthly Parking Permits set forth above, Landlord makes no representation as to the number of parking spaces that will be available at any time for Tenant's employees and Tenant's visitors.

24.2 It is understood and agreed that the Parking Garages will be operated on a self-parking basis and that no specific parking spaces will be allocated for use by Tenant. Each user of the Parking Garages will have the right to park in any available unreserved parking space. Notwithstanding anything herein to the contrary, Landlord hereby reserves the right from time to time to designate any portion of the Parking Garages to be used exclusively by Building visitors, retail patrons to the Building, other tenants of the Building, and/or members of the public. Tenant agrees that it and its employees shall observe reasonable safety precautions in the use of the Parking Garages and shall at all times abide by all rules and regulations promulgated by Landlord or the Parking Garages operator governing their use. If an employee of Tenant or Tenant's permitted subtenants parks in a reserved parking space or in areas of the Parking Garages that are designated as reserved for the exclusive use of tenants other than Tenant, visitors or retail patrons, such employee or subtenant shall be subject to enforcement measures.

24.3 The Parking Garages will remain open for Tenant's employees with Monthly Parking Permits seven (7) days a week, twenty-four (24) hours a day. The Parking Garages will remain open for visitors and retail patrons at times reasonably designated by Landlord from time to time. Landlord reserves the right to close the Parking Garages during periods of unusually inclement weather and portions of the Parking Garages during periods of repair, cleaning and/or maintenance.

24.4 It is understood and agreed that Landlord does not assume any responsibility for, and shall not be held liable for, any damage or loss to any vehicles parked in the Parking Garages or to any personal property located therein, or for any injury sustained by any person in or about the Parking Garages.

24.5 Landlord has installed parking controls controlling access to and from the Parking Garages. Tenant's employees with Monthly Parking Permits may be required to provide their license plate number(s), display a form of identification on their vehicles or provide any other method of validation as determined by Landlord for all vehicles parked in the Parking Garages. Any car not in compliance with such method of validation shall be subject to enforcement measures. As a result of such parking controls, Tenant's employees above the ratio stated in 24.1 and visitors (including Tenant's employees whose principal office is not located in the Premises) will be charged a fee for parking in the Parking Garages, if parking is available in the Parking Garages. Landlord shall reasonably coordinate with Tenant to permit Tenant to pay such fee on behalf of Tenant's visitors and invitees; provided, however, Tenant shall not be permitted to use the Monthly Parking Permits for Tenant's visitors or invitees. Notwithstanding anything provided in this Article XXIV, Tenant acknowledges that for the initial Lease Term, the cost to park the vehicles included in the ratio set forth in Section 24.1 is included in the Base Rent but for any Renewal Term Tenant shall pay to Landlord its customary rate for Monthly Parking Permits in addition to the Base Rent.

24.6 In addition to the Monthly Parking Permits, during the initial Lease Term Landlord will provide validations (which validations shall be at no charge to Tenant) for daily parking (not to exceed 12 hours per day) for Tenant's non-employee visitors to the Premises in the Parking Garages in an aggregate amount not to exceed five hundred (500) such daily permits per year ("**Validations**"). In no event (a) shall any such unused Validations for any particular year be permitted to be carried over into any future year, and (b) shall any such validations provided by Landlord be applicable to any garages other than the Parking Garages or to any street parking for Tenant's guests.

ARTICLE XXV
GENERAL PROVISIONS

25.1 Tenant acknowledges that neither Landlord nor any broker, agent or employee of Landlord has made any representations or promises with respect to the Premises or the Building except as herein expressly set forth, and no rights, privileges, easements or licenses are being acquired by Tenant except as herein expressly set forth.

25.2 Nothing contained in this Lease shall be construed as creating a partnership or joint venture of or between Landlord and Tenant, or to create any other relationship between the parties hereto other than that of landlord and tenant.

25.3 Landlord recognizes Jones Lang LaSalle Brokerage, Inc. (the "**Broker**") as the broker procuring this Lease and shall pay said Broker a commission pursuant to a separate agreement between said Broker and Landlord. Landlord and Tenant each represent and warrant to the other that, except as provided in the preceding sentence, neither of them has employed or dealt with any broker, agent or finder in carrying on the negotiations relating to this Lease. Landlord and Tenant shall indemnify and hold the other harmless from and against any claim or claims for brokerage or other commissions asserted by any broker, agent or finder engaged by Landlord or Tenant or with whom Landlord or Tenant has dealt in connection with this Lease, other than the Broker.

25.4 (a) Tenant agrees, at any time and from time to time, upon not less than fifteen (15) business days' prior written notice from Landlord, to execute, acknowledge and

deliver to Landlord a true statement in writing (i) certifying that this Lease is unmodified and in full force and effect (or if there have been any modifications, that this Lease is in full force and effect as modified and stating the modifications), (ii) stating the dates to which the rent and any other charges hereunder have been paid by Tenant, (iii) stating whether or not, to the best knowledge of Tenant, Landlord is in default in the performance of any covenant, agreement or condition contained in this Lease, and if so, specifying the nature of such default, (iv) stating the address to which notices to Tenant are to be sent, and (v) stating such other information as Landlord, Lender or any other holder of a mortgage secured by the Building may reasonably request on such form as Landlord, Lender or such holder may reasonably request. If Tenant fails to execute, acknowledge and deliver any such written statement within the aforesaid fifteen (15) business day period, Landlord shall provide Tenant with a second notice stating in bold, all capital letters, **SECOND AND FINAL NOTICE- FAILURE TO RESPOND WITHIN 3 BUSINESS DAYS SHALL CONSTITUTE AN EVENT OF DEFAULT**. In the event Tenant fails to deliver to Landlord such statement within three (3) business days following receipt of such Second and Final Notice, then such failure shall constitute an Event of Default. Any such statement delivered by Tenant may be relied upon by any owner of the Building or the Land, any prospective purchaser of the Building or the Land, any mortgagee or prospective mortgagee of the Building or such Land or of Landlord's interest therein, or any prospective assignee of any such mortgagee. Tenant shall have no liability to any party relying on the estoppel certificate; the sole consequence of delivering the certificate is that Tenant shall be estopped from denying the accuracy of the statements contained therein and that Tenant shall not assert or enforce any claim which is inconsistent with the statements contained therein.

(b) To the extent that Tenant's financial information is not publicly available, within fifteen (15) business days following Tenant's receipt of written request from Landlord, Tenant shall make its chief financial officer available to answer any reasonable questions Landlord may have concerning such financial statements and shall deliver any additional information reasonably requested by Landlord to clarify or verify the data shown on the statements provided pursuant to the preceding sentence, provided Landlord agrees to hold the financial statements and other such additional information subject to customary confidentiality conditions. Notwithstanding the foregoing, Tenant shall not be obligated to produce such financial statements more than one time in a given twelve (12) month period, except in the event of a monetary Event of Default or if the Landlord requests such statement in connection with its efforts to solicit financing on the Building or the sale of the Building.

25.5 Landlord and Tenant each hereby waive trial by jury in any action, proceeding or counterclaim brought by either of them against the other in connection with any matter arising out of or in any way connected with this Lease, the relationship of landlord and tenant hereunder, Tenant's use or occupancy of the Premises, or any claim of injury or damage.

25.6 All notices or other communications required hereunder shall be in writing and shall be deemed duly given if delivered in person (with receipt therefor), or if sent by certified or registered mail, return receipt requested, postage prepaid, or by recognized overnight courier, when received or refused to the following addresses: (i) if to Landlord at c/o Boston Properties, 2200 Pennsylvania Avenue NW, Suite 200W, Washington, DC 20037, Attn: Regional Counsel, with a copy to Boston Properties, 800 Boylston Street, Suite 1900, Boston, Massachusetts 02199-8103, Attn: General Counsel, (ii) if to Tenant, at the Premises with a copy to Shartsis Friese LLP, One Maritime Plaza, Eighteenth Floor, San Francisco California 94111-3598; Attention: Scott Schneider/Thomas Morell, except that prior to the Lease Commencement Date, notices to Tenant shall be sent to such address as Tenant shall designate and inform Landlord in accordance with this Section 25.6. Either party may change its address for the giving of notices by notice given in accordance with this Section.

25.7 If any provision of this Lease or the application thereof to any person or circumstance shall to any extent be invalid or unenforceable, the remainder of this Lease, or the application of such provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each provision of this Lease shall be valid and enforceable to the fullest extent permitted by law.

25.8 Feminine or neuter pronouns shall be substituted for those of the masculine form, and the plural shall be substituted for the singular number, in any place or places herein in which the context may require such substitution.

25.9 The provisions of this Lease shall be binding upon, and shall inure to the benefit of, the parties hereto and each of their respective representatives, successors and assigns, subject to the provisions hereof restricting assignment or subletting by Tenant.

25.10 This Lease, together with all Riders and Exhibits attached hereto, contains and embodies the entire agreement of the parties hereto and supersedes all prior agreements, negotiations and discussions between the parties hereto. Any representation, inducement or agreement that is not contained in this Lease shall not be of any force or effect. This Lease may not be modified or changed in whole or in part in any manner other than by an instrument in writing duly signed by both parties hereto.

25.11 This Lease shall be governed by and construed in accordance with the laws of the jurisdiction in which the Building is located, without regard to the conflicts of laws principles.

25.12 Article and section headings are used herein for the convenience of reference and shall not be considered when construing or interpreting this Lease.

25.13 The submission of an unsigned copy of this document to Tenant for Tenant's consideration does not constitute an offer to lease the Premises or an option to or for the Premises. This document shall become effective and binding only upon the execution and delivery of this Lease by both Landlord and Tenant.

25.14 Time is of the essence of each provision of this Lease.

25.15 Neither this Lease nor a memorandum thereof shall be recorded.

25.16 Except as otherwise provided in this Lease, any amounts (whether referenced herein as "**Additional Rent**" or "**additional rent**") owed by Tenant to Landlord, and any cost, expense, damage, or liability shall be paid by Tenant to Landlord no later than the later of (i) thirty (30) days after the date Landlord notifies Tenant in writing of the amount of such additional rent or such cost, expense, damage or liability, or (ii) the day the next monthly installment of annual base rent is due. If any payment hereunder is due after the end of the Lease Term, such additional rent or such cost, expense, damage or liability shall be paid by Tenant to Landlord not later than thirty (30) days after Landlord notifies Tenant in writing of the amount of such additional rent or such cost, expense, damage or liability.

25.17 All of Tenant's duties and obligations hereunder, including but not limited to Tenant's duties and obligations to pay annual base rent, additional rent and the costs, expenses, damages and liabilities incurred by Landlord for which Tenant is liable, shall survive the expiration or earlier termination of this Lease for any reason whatsoever. Landlord's obligation to refund to Tenant any Security Deposit or overpayment made by Tenant pursuant to Article IV or Article V shall likewise survive the expiration or earlier termination of this Lease.

25.18 In the event either party is in any way delayed, interrupted or prevented from performing any of its obligations under this Lease (except with respect to Tenant, any obligation set forth in Exhibit B or the obligations to pay rent and other sums due under this Lease, holdover, Tenant's obligation with respect to insurance pursuant to Article XIII, and with respect to Landlord, the obligation to disburse the Improvement Allowance pursuant to this Lease, and such delay, interruption or prevention is due to fire, casualty, act of God, governmental act, action or inaction (including, without limitation, government delays in issuing any required building, construction, occupancy or other permit, certificate or approval or performing any inspection or review in connection therewith), act(s) of war, terror or terrorism, strike, labor dispute or disruptions, disruptions in the supply chain or other inability to procure materials, actual or threatened health emergency (including without limitation, epidemic, pandemic, famine, disease, plague, quarantine, and other health risk), or any other cause beyond such party's reasonable control (whether similar or dissimilar) (each a "**Force Majeure Event**"), then such party shall be excused from performing the affected obligations for the period of such delay, interruption or prevention.

25.19 Landlord and Tenant each hereby represents and warrants to the other that all necessary action has been taken to enter this Lease and that the person signing this Lease on behalf of Landlord and Tenant has been duly authorized to do so.

25.20 Landlord and Tenant agree that the terms and conditions of this Lease shall remain confidential and shall not be disclosed, directly or indirectly, to any individual or entity by either Landlord or Tenant without the express written consent of the other, with the exception of consultants, employees, agents, lawyers, accountants and other professionals employed or retained directly by either or both of the parties to negotiate or work on this Lease who have a legitimate need to know such information and any other disclosures as may be required to comply with applicable Legal Requirements or otherwise required by a court of law or in connection with any other legal arbitration or dispute resolution proceeding. In the event Tenant is required by law to provide this Lease or disclose any of its terms, Tenant shall give Landlord prompt notice of such requirement prior to making disclosure so that Landlord may seek an appropriate protective order. If failing the entry of a protective order Tenant is compelled to make disclosure, Tenant shall only disclose portions of this Lease which Tenant is required to disclose and will exercise reasonable efforts to obtain assurance that confidential treatment will be accorded to the information so disclosed. Any and all public announcements regarding this Lease and any public announcement using either party's name must be approved in writing by such party prior to publication or other dissemination, it being expressly agreed, however, that, notwithstanding anything in this Section to the contrary, Landlord shall have the right, without the consent of Tenant, to make customary written and verbal disclosures, including describing this Lease and identifying Tenant and/or its affiliates (i) in filings required by the Securities and Exchange Commission or as otherwise may be required by Legal Requirements and (ii) on investor/earnings calls, in investor/earnings meetings and in earnings releases.

25.21 Intentionally omitted.

25.22 Landlord and Tenant each hereby covenant and agree that each and every provision of this Lease has been jointly and mutually negotiated and authorized by both Landlord and Tenant; and, in the event of any dispute arising out of any provision of this Lease, Landlord and Tenant do hereby waive any claim of authorship against the other party.

25.23 The term "**days**," as used herein, shall mean actual days occurring, including, Saturdays, Sundays and holidays. The term "**business days**" shall mean days other than Saturdays, Sundays and holidays. If any item must be accomplished or delivered hereunder on a day that it is not a business day, it shall be deemed to have been timely accomplished or delivered if accomplished or delivered on the next following business day.

25.24 All exhibits, schedules, riders and other appendices attached hereto are a part of this Lease and are incorporated herein by reference.

25.25 (a) As an inducement to Landlord to enter into this Lease, Tenant hereby represents and warrants that: (i) Tenant is not, nor is it owned or controlled directly or indirectly by, any person, group, entity or nation named on the Specially Designated Nationals and Blocked Persons List maintained by the Office of Foreign Assets Control of the United States Department of the Treasury ("**OFAC**") (any such person, group, entity or nation being hereinafter referred to as a "**Prohibited Person**"); (ii) Tenant is not (nor is it owned or controlled, directly or indirectly, by any person, group, entity or nation which is) acting directly or indirectly for or on behalf of any Prohibited Person; and (iii) Tenant (and any person, group, or entity which Tenant controls, directly or indirectly) has not conducted nor will conduct business nor has engaged nor will engage in any transaction or dealing with any Prohibited Person that either may cause or causes Landlord to be in violation of any OFAC rule or regulation, including, without limitation, any assignment of this Lease or any subletting of all or any portion of the Premises. In connection with the foregoing, it is expressly understood and agreed that (x) any breach by Tenant of the foregoing representations and warranties shall be deemed a default by Tenant under Article XIX of this Lease and shall be covered by the indemnity provisions of this Lease, (y) Tenant shall be responsible for ensuring that all assignees of this Lease and all subtenants or other occupants of the Premises comply with the foregoing representations and warranties, and (z) the representations and warranties contained in this subsection shall be continuing in nature and shall survive the expiration or earlier termination of this Lease.

(b) As an inducement to Tenant to enter into this Lease, Landlord hereby represents and warrants that: (i) Landlord is not, nor is it owned or controlled directly or indirectly by, any Prohibited Person; (ii) Landlord is not (nor is it owned or controlled, directly or indirectly, by any person, group, entity or nation which is) acting directly or indirectly for or on behalf of any Prohibited Person; and (iii) Landlord (and any person, group, or entity which Landlord controls, directly or indirectly) has not conducted nor will conduct business nor has engaged nor will engage in any transaction or dealing with any Prohibited Person that either may cause or causes Tenant to be in violation of any OFAC rule or regulation. In connection with the foregoing, it is expressly understood and agreed that the representations and warranties contained in this subsection shall be continuing in nature and shall survive the expiration or earlier termination of this Lease. Notwithstanding anything contained herein to the contrary, for the purposes of this subsection (B) the phrase "owned or controlled directly or indirectly by any person, group, entity or nation" and all similar such phrases shall not include (x) any shareholder of Boston Properties, Inc., (y) any holder of a direct or indirect interest in a publicly traded company whose shares are listed and traded on a United States national stock exchange or (z) any limited partner, unit holder or shareholder owning an interest of five percent (5%) or less in Boston Properties Limited Partnership or the holder of any direct or indirect interest in Boston Properties Limited Partnership.

25.26 (a) Notwithstanding anything in this Lease to the contrary, if Landlord or any affiliate of Landlord has elected to qualify as a real estate investment trust ("**REIT**"), any service required or permitted to be performed by Landlord pursuant to this Lease, the charge or cost of which may be treated as impermissible tenant service income under the laws governing a REIT, may be performed by a taxable REIT subsidiary that is affiliated with either Landlord or Landlord's property manager, an independent contractor of Landlord or Landlord's property Manager (the "**Service Provider**"). If Tenant is subject to a charge under this Lease for any such service, then, at Landlord's direction, Tenant will pay such charge either to Landlord for further payment to the Service Provider or directly to the Service Provider, and, in either case (i) Landlord will credit such payment against Additional Rent due from Tenant under this Lease,

and (ii) such payment to the Service Provider will not relieve Landlord from any obligation under the Lease concerning the provisions of such service.

25.27 No waiver by Landlord of any condition precedent to the execution or effectiveness of this Lease, nor any failure by Tenant to deliver any security deposit, letter of credit, pre-paid rent, financial information, guaranty or other item required upon the execution and delivery of this Lease (except as otherwise expressly provided pursuant to Section 5.1(a) above), shall be construed as excusing satisfaction of any such condition or the delivery of any such item by Tenant, and (subject to all notice and cure rights expressly available to Tenant under this Lease) Landlord reserves the right to declare the failure of Tenant to satisfy any such condition or deliver any such item an Event of Default under this Lease.

25.28 This Lease may be executed in counterpart, each of which shall be deemed an original and all of which collectively shall constitute one and the same document. Any signature on a counterpart of this Lease sent by facsimile or other electronic transmission (*e.g.*, a PDF copy transmitted by email) shall be deemed valid and binding upon the party employing the same; provided that such party shall, upon the request of the other party, promptly provide such other party with a counterpart of this Lease bearing an original version of such signature sent by facsimile or other electronic transmission.

25.29 In no event shall Landlord be liable for, and Tenant, on behalf of itself and all other Tenant Parties, hereby waives any claim for, any indirect, consequential or punitive damages, including loss of profits or business opportunity, arising under or in connection with this Lease. In no event shall Tenant be liable for, and Landlord, on behalf of itself and all other Landlord Parties, hereby waives any claim for, any indirect, consequential or punitive damages, including loss of profits or business opportunity, arising under or in connection with this Lease, except in connection with a holdover pursuant to Section 22.1 above.

ARTICLE XXVI
COMMUNICATIONS AND ACCESS; BUILDING RISERS

26.1 Tenant shall be responsible for contracting and connecting to telecommunication providers' equipment at the main DMARC location and running cable into the Premises through the Risers. Landlord agrees that, provided Tenant is not in an Event of Default under this Lease, Tenant and its contractor shall be permitted non-exclusive access equal to its proportionate share (as determined from time to time based upon the number of rentable square feet of office space Tenant is leasing in the Building from Landlord) of the available space in the Building risers and telecommunications closets, including without limitation the space above the ceilings and below the floors of the Premises, except such risers or closets being utilized exclusively by Landlord or other tenants in the Building (and excluding, in any event, such Building risers and/or telecommunications closets located in mechanical rooms, basement space or other common and/or public areas of the Building) (collectively, "**Risers**"), at no additional charge therefor, for the sole purpose of installing cabling and telecommunications equipment therein; provided, however, that:

(a) Tenant shall submit to Landlord for Landlord's prior written approval (which approval shall not be unreasonably withheld, conditioned or delayed) reasonably detailed plans and specifications showing the locations within the Risers where such cabling and equipment will be installed. Tenant shall appropriately mark and/or tag all such cabling and equipment as reasonably required by Landlord to identify the owner and/or user thereof. If any such cabling and/or equipment are installed without Landlord's prior written approval or without such appropriate identification, and Tenant fails to remove same within thirty (30) days after written notice from Landlord to do so, then Landlord shall have the right to remove and correct such improvements and restore the Risers to their condition immediately prior thereto, and

Tenant shall be liable for all expenses incurred by Landlord in connection therewith. Tenant shall not be entitled to use or occupy a disproportionate amount of the available space in the Risers, based upon the proportion of the rentable area then being leased by Tenant to the aggregate rentable office area in the Building. Landlord makes no representation or warranty that the Risers will be adequate to satisfy Tenant's needs. Tenant has previously inspected the Riser space and has satisfied itself as to the adequacy of such space.

(b) Tenant and its contractor shall coordinate any access to the Risers with Landlord's property manager for the Building.

(c) Tenant shall pay, as additional rent, all reasonable and actual, out of pocket costs and expenses reasonably incurred by Landlord in connection with performance of such work by or on behalf of Tenant or its contractors, agents or employees.

(d) Tenant and its contractor shall conduct their work in a manner that shall minimize disruption and inconvenience to other tenants and occupants of the Building.

(e) During the installation, maintenance, repair, replacement, and removal of such cabling and equipment, Tenant shall keep all public areas of the Building where such work is being performed neat and clean at all times and Tenant shall remove or cause all debris to be removed from the Building at the end of each work day.

(f) Tenant shall promptly repair, at its sole cost and expense, any damage done to the Building or to the premises of any other tenant in the Building and to any electrical, mechanical, HVAC, sprinkler, life safety and other operating system serving the Building or other common areas appurtenant to the Building that are caused by or arise out of any work performed by Tenant or its contractor pursuant to this Section.

(g) Any contractor performing such work shall be subject to the prior written approval of Landlord, which approval shall not be unreasonably withheld, conditioned or delayed.

(h) In performing such work, Tenant and its contractor shall observe Landlord's reasonable rules and regulations regarding the construction, installation, and removal of Tenant improvements in the Building, which rules and regulations, together with any modifications thereto, shall be provided to Tenant, in writing, prior to enforcement.

(i) Tenant shall be solely responsible at its sole cost and expense to correct and to repair any work or materials installed by Tenant or Tenant's contractor. Landlord shall have no liability to Tenant whatsoever on account of any work performed or material provided by Tenant or its contractor.

(j) Tenant shall remove, at Tenant's sole cost and expense, all cabling and equipment (that are not appropriately marked and/or tagged) installed by or on behalf of Tenant or other occupants of the Premises from the Risers or the Building, by no later than the expiration or earlier termination of this Lease (including any cabling or equipment related to a DAS System). All damages and injury to the Risers, the Premises or the Building caused by such removal shall be repaired by Tenant, at Tenant's sole expense and in a manner approved by Landlord.

(k) Landlord's representative shall have the right to inspect any work performed by Tenant or its contractor during the normal hours of operation of the Building or such other hours as Landlord may request.

(l) All work done and materials furnished by Tenant and/or its contractor shall be of good quality, shall be performed in a good and workmanlike manner and in accordance and compliance with all applicable Legal Requirements and the other applicable provisions of this Lease.

(m) Any casualty or other damage to all or any portion of the Risers shall not affect Tenant's obligations, duties, or responsibilities under this Lease.

ARTICLE XXVII
ROOF RIGHTS

27.1 (a) Subject to the satisfaction, in Landlord's reasonable judgment, of all of the conditions set forth in this Article, Tenant, at Tenant's sole cost and expense, may install and maintain, on Tenant's proportionate share (as determined from time to time based upon the number of rentable square feet of office space Tenant is leasing in the Building from Landlord) of roof space available for tenants' equipment (the "**Rooftop Area**"), the location of which shall be mutually agreed to by Landlord and Tenant, (i) satellite dishes or antennae (collectively, the "**Communications Equipment**") on the roof of the Building, and (ii) supplemental HVAC unit(s) or other similar reasonable equipment to support Tenant's use and occupancy of the Premises on the roof of the Building (collectively, the "**HVAC Equipment**"), for use in connection with Tenant's business in the Premises. Notwithstanding anything in this Article to the contrary, Tenant shall not be permitted to install the Communications Equipment or the HVAC Equipment unless (x) such Communications Equipment and HVAC Equipment each conforms to the specifications and requirements set forth in the drawings and specifications prepared by a licensed professional (as applicable, the "**Communications Equipment Drawings**" and the "**HVAC Equipment Drawings**"), which Communications Equipment Drawings and HVAC Equipment Drawings shall be subject to the prior written approval of Landlord, which approval shall not be unreasonably withheld, conditioned or delayed and (y) Landlord approves, which approval shall not be unreasonably withheld or delayed, the size, capacity, power, location and proposed placement and method of installation of such Communications Equipment and HVAC Equipment (it being understood that Landlord may require, at Tenant's expense, (I) any HVAC dry coolers that are a part of the HVAC Equipment to be elevated on platforms, and (II) louvers or undercuts to be added to the any screen wall, for purposes of air circulation). Tenant, at Landlord's direction, shall cause the Communications Equipment and the HVAC Equipment to be painted in a nonmetallic paint to match the materials on the penthouse. In addition, if the installation of the Communications Equipment and/or the HVAC Equipment on the roof of the Building would penetrate the roof of the Building, then Tenant shall not be permitted to install the Communications Equipment and/or the HVAC Equipment, as applicable, unless Tenant obtains the approval of Landlord, in writing, which approval shall be in Landlord's sole discretion. The Communications Equipment and HVAC Equipment shall be installed by a contractor reasonably acceptable to Landlord and thereafter shall be properly maintained by Tenant, all at Tenant's sole expense. At the expiration or earlier termination of the Lease Term, the Communications Equipment and HVAC Equipment shall be removed from the Building at Tenant's sole cost and expense and that portion of the Building that has been affected by the Communications Equipment and the HVAC Equipment shall be returned to the condition it was in prior to the installation of the Communications Equipment and the HVAC Equipment, ordinary wear and tear and damage by fire or other casualty excepted. Tenant shall pay all subscription fees, usage charges and hookup and disconnection fees associated with Tenant's use of the Communications Equipment and the HVAC Equipment and Landlord shall have no liability therefor. All of the provisions of this Lease, including, without limitation, the insurance, maintenance, repair, release and indemnification provisions shall apply and be applicable to Tenant's installation, operation, maintenance and removal of the Communications Equipment and the HVAC Equipment.

(b) Except as shown on the Communications Equipment Drawings and/or the HVAC Equipment Drawings, as applicable, as reasonably approved by Landlord, Tenant shall not make any modification to the design, structure or systems of the Building, required in connection with the installation of the Communications Equipment and/or the HVAC Equipment without Landlord's prior written approval of such modification and the plans therefor, which approval shall be granted, conditioned or withheld by Landlord in accordance with the standards for the initial installation thereof pursuant to Section 27.1(a) above. Tenant agrees that, in addition to any indemnification provided Landlord in this Lease, Tenant shall indemnify and shall hold Landlord and Boston Properties, Inc., Boston Properties Limited Partnership, Landlord's managing agent, and their employees, shareholders, partners, members, officers and directors, harmless from and against all costs, damages, claims, liabilities and expenses (including attorneys' fees and any costs of litigation) suffered by or claimed against Landlord, directly or indirectly, based on, arising out of or resulting from Tenant's use of the Communications Equipment and the HVAC Equipment and/or the conduits to connect the Premises to the Communications Equipment and the HVAC Equipment.

(c) Tenant, at its sole cost and expense, shall secure all necessary permits and approvals from all applicable governmental agencies with respect to the size, placement and installation of the Communications Equipment and the HVAC Equipment (and Landlord shall reasonably cooperate in good faith with Tenant upon request, at no cost or expense to Landlord, in connection with Tenant's efforts to obtain all such permits and approvals). In the event Tenant is unable to obtain the necessary approvals and permits from any applicable federal, state, county or other local governing authorities for the Communications Equipment and/or the HVAC Equipment, Tenant shall have no remedy, claim, cause of action or recourse against Landlord, nor shall such failure or inability to obtain any necessary permits or approvals provide Tenant the opportunity to terminate this Lease.

(d) Landlord makes no representations or warranties concerning the suitability of the Building for the installation operation, maintenance and repair of the Communications Equipment or the HVAC Equipment, Tenant having satisfied itself concerning such matters.

(e) Tenant shall not have access to the Communications Equipment or the HVAC Equipment without Landlord's prior written consent, which consent shall be granted to the extent necessary for Tenant to perform its maintenance, repair, replacement, installation and removal obligations hereunder and only if Tenant is accompanied by Landlord's representative (if Landlord so requests, in which event Landlord and Tenant shall coordinate reasonably to accomplish the same). Any such access by Tenant shall be subject to reasonable rules and regulations relating thereto established from time to time by Landlord, including without limitation rules and regulations prohibiting such access unless Tenant is accompanied by Landlord's representative and Tenant's agreement to reimburse Landlord for costs incurred by Landlord to make Landlord's representative available to accompany Tenant if after normal business hours.

(f) Upon at least thirty (30) days' prior written notice to Tenant, Landlord shall have the right to require Tenant to relocate the Communications Equipment and/or the HVAC Equipment, if in Landlord's opinion such relocation is necessary. Any such relocation shall be performed by Tenant at Landlord's expense, and in accordance with all of the requirements of this Article. Nothing in this Article shall be construed as granting Tenant any line of sight easement with respect to such Communications Equipment; provided, however, that if Landlord requires that such antenna be relocated in accordance with the preceding two (2) sentences, then Landlord shall use reasonable efforts to provide either (i) the same line of sight for such Communications Equipment as was available prior to such relocation, or (ii) a line of sight for such Communications Equipment which is functionally equivalent to that available prior to such relocation.

(g) It is expressly understood that by granting Tenant the right hereunder, Landlord makes no representation as to the legality of such Communications Equipment or HVAC Equipment or its installation. In the event that any federal, state, county, regulatory or other authority requires the removal or relocation of such Communications Equipment and/or HVAC Equipment, Tenant shall remove or relocate such Communications Equipment and/or HVAC Equipment at Tenant's sole cost and expense, and Landlord shall under no circumstances be liable to Tenant therefor.

(h) Tenant's rights under this Article are personal to and may be exercised only by FireEye, Inc. and shall not be exercisable by any assignee or subtenant of FireEye, Inc., except an assignee constituting an Affiliate of Tenant or a Parent of Tenant under section 7.4 of the Lease.

(i) Except as otherwise expressly provided for in this Article XXVII, Tenant's right to use the roof of the Building for the Communications Equipment and the HVAC Equipment shall be at no additional rental charge to Tenant during the Lease Term.

27.2 Tenant shall maintain such insurance as is appropriate with respect to the installation, operation and maintenance of the Communications Equipment and the HVAC Equipment. Landlord shall have no liability on account of any damage to or interference with the operation of the Communications Equipment or the HVAC Equipment except for physical damage caused by Landlord's gross negligence or willful misconduct and Landlord expressly makes no representations or warranties with respect to the capacity for Communications Equipment placed on the roof or penthouse of the Building to receive or transmit signals. The operation of the Communications Equipment and the HVAC Equipment shall be at Tenant's sole and absolute risk. Upon the written request of Tenant from time to time, Landlord shall cause any subsequent roof user who installs roof equipment after the Communications Equipment and the HVAC Equipment is installed and operational to modify or discontinue such roof use if the same unreasonably interferes with Tenant's previously installed and operational Communications Equipment and/or HVAC Equipment, as applicable.

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SIGNATURE PAGE FOLLOWS.]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease on or as of the day and year first above written.

LANDLORD:

ONE FREEDOM SQUARE, L.L.C.,
a Delaware limited liability company

By: BOSTON PROPERTIES LIMITED PARTNERSHIP, a Delaware limited partnership, its managing member

By: BOSTON PROPERTIES, INC., a Delaware corporation

By: /s/ John J. Stroman

Name: John J. Stroman
Title: SVP, Leasing

TENANT:

FIREEYE, INC.,
a Delaware corporation

By: /s/ Frank E. Verdecanna

Name: Frank E. Verdecanna
Title: Executive Vice President, Chief Financial Officer and Chief Accounting Officer

RIDER NO. 1
RENEWAL

1. Landlord hereby grants to Tenant the conditional right, exercisable at Tenant's option, to renew the term of the Lease, for the entire Premises, for two (2) additional terms of five (5) years each. If timely exercised and if the conditions applicable thereto have been satisfied, the first such renewal term shall commence immediately following the end of the initial Lease Term and the second such renewal term shall commence immediately following the end of the first renewal term (each such renewal term, a "**Renewal Term**"). The right of renewal herein granted to Tenant shall be subject to, and shall be exercised in accordance with, the following terms and conditions:

(a) Tenant shall exercise its right of renewal with respect to each Renewal Term by giving Landlord written notice of the exercise thereof (the "**Renewal Option Notice**") not less than twelve (12) months and not more than eighteen (18) months prior to the expiration of the then Lease Term. If Tenant exercises its right of renewal, Tenant may not thereafter revoke such exercise, except as set forth in the last sentence of Section 1(c) of this Rider. In the event that a Renewal Option Notice is not given in a timely manner, Tenant's right of renewal with respect to the applicable Renewal Term shall lapse and be of no further force or effect. Tenant's right to exercise its right of renewal with respect to the second Renewal Term shall be conditioned upon Tenant having previously and effectively exercised its right of renewal with respect to the first Renewal Term. If Tenant is subject to an Event of Default under the Lease on the date a Renewal Option Notice is given, or any time thereafter on or before the commencement date of the applicable Renewal Term, then, at Landlord's option, such Renewal Option Notice shall be totally ineffective and Tenant's right of renewal as to the applicable Renewal Term shall lapse and be of no further force or effect.

(b) Promptly following Landlord's timely receipt of a Renewal Option Notice, Landlord and Tenant shall commence negotiations concerning the amount of annual base rent which shall be payable during each year of the applicable Renewal Term and the Lease security that may be required, it being intended that such annual base rent shall be equal to (i) with respect to the first Renewal Term, ninety-five percent (95%) of the then prevailing fair market rent for the Premises and (ii) with respect to the second Renewal Term, one hundred percent (100%) of the then prevailing fair market rent for the Premises. The parties shall have thirty (30) days after Landlord's receipt of the Renewal Option Notice in which to agree on the annual base rent which shall be payable during each year of the applicable Renewal Term and the Lease security that may be required. The parties shall be obligated to conduct such negotiations in good faith. The factors to be considered by the parties during such negotiations shall be (i) the general office rental market for Class A office buildings in the Market Area, (ii) rental rates then being obtained (or quoted if comparables are not readily available) by other building owners for office buildings of comparable size, location and quality to the Building in the Market Area, (iii) the rental rates then being obtained by Landlord for comparable office space, in "as is" condition, in the Building, (iv) escalations and pass throughs of Operating Expenses as provided in the Lease, except the Base Year shall be as set forth in clause (ii) of Section 1(d) of this Rider, (v) concession packages then being obtained (or offered if comparables are not readily available) by other building owners for office buildings in the Market Area of comparable size, location and quality to the Building, and (vi) concession packages then being obtained by Landlord for comparable office space in "as-is" condition in the Building. If the parties agree on the base rent payable during each year of the applicable Renewal Term and the Lease security required, they shall promptly execute an amendment to the Lease stating the rent and Lease security so agreed upon.

(c) If, during such thirty (30) day period referred to in Section 1(b) above, the parties are unable to agree on the base rent payable during the applicable Renewal Term, then (i) the fair market rent and (ii) the related fair market concessions, abatements and allowances, if any, that will be applicable thereto shall be determined in accordance with the procedure set forth in this Section 1(c). Within ten (10) days after expiration of such thirty (30) day period, the parties shall appoint a real estate broker ("**Renewal Broker**") who shall be mutually agreeable to both Landlord and Tenant, shall be a member of the Commercial Real Estate Brokerage Association of Greater Washington, D.C. (CREBA), and shall have at least ten (10) years relevant experience in office rentals in the Market Area. If the parties are unable to agree on a Renewal Broker within such ten (10) day period, then each party, within five (5) days after the expiration of the aforesaid ten (10) day period, shall appoint a Renewal Broker (with the same qualifications) and the two Renewal Brokers shall together appoint a third Renewal Broker with the same qualifications ("**Third Renewal Broker**"). The original agreed upon Renewal Broker, if applicable, or the two Renewal Brokers appointed by the parties shall determine, within thirty (30) days after appointment, the then fair market base rent (and related fair market concessions, abatements and allowances, if any) that will be applicable to the Premises for the applicable Renewal Term. The factors to be considered by the Renewal Broker or Renewal Brokers in determining the fair market base rent for the Premises (and related fair market concessions, abatements and allowances, if any) that will be applicable during the applicable Renewal Term shall be those factors set out in Section 1(b) above. The fair market rent arrived at by the Renewal Broker, if only one, (or if more than one Renewal Broker and the original two (2) Renewal Brokers appointed by the parties agree on a fair market rent), shall be used as the fair market base rent for the applicable Renewal Term. If more than one Renewal Broker is appointed and the Renewal Brokers reach different determinations, and the parties are unable to reach agreement within five (5) business days of receipt of both Renewal Brokers' determinations, then the Third Renewal Broker shall determine within thirty (30) days of receipt of both Renewal Brokers' determinations, which of the Renewal Brokers' determination of the fair market base rent for the Premises (and related fair market concessions, abatements and allowances, if any) will be applicable for the applicable Renewal Term. The fair market base rent (and related market concessions, abatements and allowances, if any) selected by the Third Renewal Broker shall be used for the applicable Renewal Term. Landlord and Tenant shall each bear the cost of its Renewal Broker and shall share equally the cost of the Third Renewal Broker. Notwithstanding the foregoing, Tenant shall be permitted to revoke its Renewal Option Notice following the Landlord's determination in Section 1(b) or following either the Renewal Brokers' determination or the determination of the Third Renewal Broker by sending written notice to the Landlord not less than thirteen (13) months prior to the expiration of the then Lease Term.

(d) During each Renewal Term, all the terms, conditions, covenants and agreements set forth in the Lease shall continue to apply and be binding upon Landlord and Tenant, except that (i) the annual base rent payable during each year of the applicable Renewal Term shall be the amount agreed upon by Landlord and Tenant in the manner provided in Sections 1(b) and (c) above, (ii) the Base Year during the applicable Renewal Term shall mean the calendar year in which the applicable Renewal Term commences, (iii) in no event shall Tenant have the right to renew the term of the Lease, or any renewal term thereof, beyond the expiration of the second Renewal Term, (iv) no abatements, allowances or other concessions shall apply during a Renewal Term, except to the extent otherwise agreed to by the parties in accordance with this Rider, and (v) Landlord shall not be responsible for any brokerage commissions in connection with each Renewal Term.

2. Tenant's rights under this Rider are personal to and may be exercised only by FireEye, Inc. and shall not be exercisable by any assignee or subtenant of FireEye, Inc., except an assignee that is an Affiliate of Tenant or a Parent of Tenant pursuant to an assignment in accordance with Section 7.4 of this Lease.

3. Tenant shall not be entitled to renew the Lease Term, and Tenant's rights under this Rider shall lapse and be of no further force or effect, if, at the time Tenant would otherwise be entitled to exercise its rights of renewal (or at any time thereafter prior to the commencement of the Renewal Term), Tenant (or an Affiliate of Tenant or a Parent of Tenant pursuant section 7.4 of the Lease) is leasing less than one hundred percent (100%) of the initial Premises or occupying less than fifty percent (50%) of the initial Premises (except that a sublease to an Affiliate of Tenant or a Parent of Tenant under section 7.4 of the Lease shall be included for the purposes of calculating such occupancy).

RIDER NO. 2
RIGHT OF FIRST OFFER

1. Tenant shall have the right, at any time and from time to time after the Lease Commencement Date, to lease additional office space located on the third (3rd), fourth (4th) or seventh (7th) floors of the Building (the "**ROFO Space**") as it becomes available and is offered to the general public with the effective date, if so exercised by Tenant, following the vacation of such leased space by the then-current tenant of such space, subject to and in accordance with the following terms and conditions:

(a) After Landlord is reasonably certain that ROFO Space will be coming available (and that such space is no longer encumbered by any other tenants' rights), Landlord shall notify Tenant in writing (the "**ROFO Availability Notice**") of the availability of the ROFO Space prior to entering into any agreements with prospective tenants; provided, however, if the lease commencement date with respect to ROFO Space will occur when fewer than three (3) years remain in the Lease Term, then such space shall not constitute ROFO Space and shall not be subject to the terms of this Rider unless Tenant simultaneously and irrevocably exercises its renewal right pursuant to Rider No. 1 (i.e., solely in the event Tenant has the right to exercise such renewal option and the deadline therefor has not occurred); provided, however, that in such event and for such purposes only, the 18-month "not-sooner-than" date set forth in Paragraph 1(a) of Rider No. 1 will be deemed accelerated to accommodate such exercise by Tenant and the thirty (30) day period following Landlord's receipt of the Renewal Option Notice for the parties to agree on the prevailing fair market rent for the Renewal Term described in Paragraph 1(b) of Rider No. 1 shall commence on the date that is eighteen (18) months prior to the expiration of the initial Lease Term or the First Renewal Term, whichever is applicable.

(b) The annual base rent with respect to the ROFO Space shall be one hundred percent (100%) of the then prevailing fair market rent (taking into account the factors specified in Rider No. 1). Landlord's ROFO Availability Notice shall set forth Landlord's determination of the then prevailing fair market rent for the applicable ROFO Space (taking into account the factors specified in Rider No. 1) and the date (or dates) on which the ROFO Space is scheduled to become available.

(c) For a period of fifteen (15) business days after Tenant's receipt of any such ROFO Availability Notice from Landlord, Tenant shall have the right, by written notice to Landlord, to lease all, but not less than all, of the ROFO Space identified by Landlord in such ROFO Availability Notice upon the terms set forth in this Rider and otherwise upon the terms and conditions set forth in the Lease (but without any obligation on the part of Landlord to construct, alter, renovate, repaint, recarpet the ROFO Space) commencing on the date that possession of the ROFO Space is made available to Tenant. If Tenant disagrees with Landlord's determination of the prevailing fair market rent for the ROFO Space set forth in Landlord's ROFO Availability Notice, then Tenant may state so in its written notice to Landlord to lease the ROFO Space, and in which case the parties shall have thirty (30) days from the date of Landlord's ROFO Availability Notice in which to agree on the fair market rent for the ROFO Space (taking into account the factors specified in Rider No. 1). The parties shall be obligated to conduct such negotiations in good faith. If, during such thirty (30) day period, the parties are unable to agree on the fair market rent for the ROFO Space, then the fair market rent for the ROFO Space shall be determined in accordance with the procedure set forth in Section 1(c) of Rider No. 1; provided, however, that notwithstanding anything in Rider No. 1 to the contrary, (i) there shall be no rescission right whatsoever with respect to Tenant's election to lease the ROFO Space, and (ii) such fair market rent determination shall be based on a new lease (not a renewal) with a term equal to the remaining Lease Term as of the anticipated delivery date therefor. If Tenant exercises its right to lease the ROFO Space hereunder, Tenant may not thereafter revoke

such exercise, and Landlord and Tenant shall promptly execute an amendment to this Lease adding the ROFO Space to this Lease. The number of square feet of rentable area of the ROFO Space shall be in accordance with the BOMA method of measurement and shall be set forth in the amendment to the Lease.

(d) Tenant shall accept ROFO Space in "as is" condition as of the date the same is delivered to Tenant. All work performed in ROFO Space shall be performed by Tenant in accordance with the terms and provisions of this Lease. The lease commencement date with respect to any ROFO Space shall be the date that is the earlier to occur of (i) ninety (90) days after such ROFO Space is delivered to Tenant by Landlord or (ii) the date Tenant commences business operations in any portion of such ROFO Space. The Lease Term for the ROFO Space shall be co-terminus with the Lease Term for the initial Premises.

(e) Tenant shall be obligated to pay additional rent with respect to any ROFO Space in accordance with the provisions of Article IV of this Lease.

(f) In the event Tenant does not elect to lease ROFO Space within the fifteen (15) day period provided above, then Landlord shall have the right to lease such space to any other person or entity upon any terms and conditions which Landlord desires, in its sole discretion (including, without limitation granting expansion rights, renewal rights and rights of first offer superior to Tenant's under this Article).

2. Tenant's rights under this Rider shall be subject to the following:

(i) With respect to any ROFO Space available for lease as of the Effective Date, Tenant's rights under this Rider shall not apply to such ROFO Space until Landlord has hereafter entered into a lease with a third-party tenant for such ROFO Space containing such terms as Landlord deems acceptable in Landlord's sole discretion (including, without limitation, any fixed expansion or extension rights that Landlord might grant such tenant(s) for such ROFO Space) and the term of such lease has expired with respect to such ROFO Space (including, without limitation, the expiration of any lease term extension period(s), regardless of whether the extension right or agreement is contained in such lease or is agreed to at any time by Landlord and the tenant under such lease or otherwise) or otherwise been terminated.

(ii) If Tenant notifies Landlord that Tenant elects not to lease a ROFO Space or if Tenant fails to timely exercise Tenant's rights under this Rider with respect thereto, Tenant's rights under this Rider shall not apply to such ROFO Space until Landlord has thereafter entered into a lease for such ROFO Space with a third-party tenant under one or more leases containing such terms as Landlord deems acceptable in Landlord's sole discretion (including, without limitation, any right of opportunity or other expansion rights that Landlord might grant such tenant(s) for such ROFO Space) and Tenant's rights under this Rider shall not apply to such space until the term of such lease has expired with respect to such ROFO Space (including, without limitation, the expiration of any lease term extension period(s), regardless of whether the extension right or agreement is contained in such lease or is agreed to at any time by Landlord and the tenant under such lease or otherwise) or otherwise been terminated.

(iii) Tenant's rights under this Rider shall be subject to any existing rights of tenants in the Building as of the Effective Date (including, without limitation, the extension of any lease term thereof, regardless of whether the extension right or agreement is contained in such lease or is agreed to at any time by Landlord and the tenant under such lease) with respect to the third (3rd), fourth (4th) and/or seventh (7th) floors of the Building (collectively, the "**Superior Rights**"). Except for the right of Landlord and the existing tenant of the applicable ROFO Space to extend the term of its lease for such ROFO Space (regardless of

whether the extension right or agreement is contained in such lease or is agreed to at any time by Landlord and the tenant under such lease or other occupancy agreement), to Landlord's actual knowledge as of the Effective Date, there are no Superior Rights other than those granted to the following tenants: BetaPrime (renewal, first offer and expansion), Comcast (renewal and first offer), LIUNA (renewal), and Microsoft (renewal and first offer).

3. If an Event of Default exists under this Lease on the date Landlord's ROFO Availability Notice is given to Tenant by Landlord, then, at Landlord's option, Tenant's right to lease such ROFO Space shall lapse and be of no further force or effect.

4. Tenant's rights under this Rider are personal to and may be exercised only by FireEye, Inc. and shall not be exercisable by any assignee or subtenant of FireEye, Inc., except an assignee approved by Landlord under Article VII of this Lease.

5. Tenant shall not be entitled to lease the ROFO Space, and Tenant's rights under this Rider shall lapse and be of no further force or effect, if, at the time Tenant would otherwise be entitled to exercise its rights hereunder (or at any time thereafter prior to the commencement of the lease term for ROFO Space), Tenant is leasing less than one hundred percent (100%) of the initial Premises or occupying less than eighty percent (80%) of the initial Premises (except that a sublease to an Affiliate of Tenant or a Parent of Tenant under section 7.4 of the Lease shall be included for the purposes of calculating such occupancy).

6. If Tenant exercises Tenant's right to contract or terminate the Lease pursuant to Rider No. 4, Tenant's rights under this Rider shall be null and void and of no further force or effect.

7. Landlord shall incur no liability, and the expiration date of the term for any ROFO Space shall not be extended, if Landlord is unable to deliver possession of any ROFO Space to Tenant on the anticipated delivery date due to any holdover tenant's refusal to vacate. Landlord agrees to use commercially reasonable efforts to obtain possession of such ROFO Space as soon as reasonably possible, including instituting eviction proceedings.

8. Promptly after Tenant elects in writing to lease any ROFO Space pursuant to this **Rider No. 2**, the parties shall execute an amendment to this Lease (reasonably acceptable to Landlord and Tenant) adding such ROFO Space to the Premises on the terms and conditions specified herein.

RIDER NO. 3

EXPANSION OPTION

1. Tenant shall have the right to lease certain office space designated by Landlord comprised of approximately 12,569 rentable square feet on the fourth (4th) floor of the Building (the "**Expansion Space**"), to be delivered to Tenant on a date selected by Landlord that is not earlier than the sixty-fourth (64th) full calendar month and not later than the eighty-fourth (84th) month full calendar month of the Lease Term ("**Expansion Window**"), subject to and in accordance with the following terms and conditions:

(a) Landlord shall notify Tenant in writing (the "**Expansion Availability Notice**") of the anticipated date of availability within the Expansion Window of the Expansion Space not earlier than eighteen (18) months and not later than twelve (12) months prior to such anticipated availability date.

(b) The annual base rent with respect to the Expansion Space shall be one hundred percent (100%) of the then prevailing fair market rent (taking into account the factors specified in Rider No. 1). Landlord's Expansion Availability Notice shall set forth Landlord's determination of the then prevailing fair market rent for the Expansion Space (taking into account the factors specified in Rider No. 1).

(c) For a period of fifteen (15) business days after Tenant's receipt of the Expansion Availability Notice from Landlord, Tenant shall have the right, by written notice to Landlord, to lease all, but not less than all, of the Expansion Space upon the terms set forth in this Rider and otherwise upon the terms and conditions set forth in the Lease (but without any obligation on the part of Landlord to construct, alter, renovate, repaint, recarpet the Expansion Space, except as set forth in the Expansion Availability Notice or serving as the basis for the determination of fair market rent) commencing on the date that possession of the Expansion Space is made available to Tenant. If Tenant disagrees with Landlord's determination of the prevailing fair market rent for the Expansion Space set forth in Landlord's Expansion Availability Notice, then Tenant may state so in its written notice to Landlord to lease the Expansion Space, and in which case the parties shall have thirty (30) days from the date of the Expansion Availability Notice in which to agree on the fair market rent for the Expansion Space (taking into account the factors specified in Rider No. 1). The parties shall be obligated to conduct such negotiations in good faith. If, during such thirty (30) day period, the parties are unable to agree on the fair market rent for the Expansion Space, then the fair market rent for the Expansion Space shall be determined in accordance with the procedure set forth in Section 1(c) of Rider No. 1; provided, however, that notwithstanding anything in Rider No. 1 to the contrary, (i) there shall be no rescission right whatsoever with respect to Tenant's election to lease the ROFO Space, and (ii) such fair market rent determination shall be based on a new lease (not a renewal) with a term equal to the remaining Lease Term as of the anticipated delivery date therefor. If Tenant exercises its right to lease the Expansion Space hereunder, Tenant may not thereafter revoke such exercise, and Landlord and Tenant shall promptly execute an amendment to this Lease adding the Expansion Space to this Lease.

(d) Tenant shall accept Expansion Space in "as is" condition as of the date the same is delivered to Tenant. All work performed in Expansion Space shall be performed by Tenant in accordance with the terms and provisions of this Lease. The lease commencement date with respect to any Expansion Space shall be the date that is the earlier to occur of (i) ninety (90) days after such Expansion Space is delivered to Tenant by Landlord or (ii) the date Tenant commences business operations in any portion of such Expansion Space. The Lease Term for the Expansion Space shall be co-terminus with the Lease Term for the initial Premises.

(e) Tenant shall be obligated to pay additional rent with respect to any Expansion Space in accordance with the provisions of Article IV of this Lease.

(f) In the event Tenant does not elect to lease Expansion Space within the fifteen (15) day period provided above, then Landlord shall have the right to lease such space to any other person or entity upon any terms and conditions which Landlord desires, in its sole discretion (including, without limitation granting expansion rights, renewal rights and rights of first offer superior to Tenant's rights under Rider No. 2).

2. If an Event of Default exists under this Lease on the date Landlord's Expansion Availability Notice is given to Tenant by Landlord, then, at Landlord's option, Tenant's right to lease the Expansion Space shall lapse and be of no further force or effect.

3. Tenant's rights under this Rider are personal to and may be exercised only by FireEye, Inc. and shall not be exercisable by any assignee or subtenant of FireEye, Inc., except an assignee that is an Affiliate of Tenant or a Parent of Tenant pursuant to an assignment in accordance with Section 7.4 of this Lease.

5. Tenant shall not be entitled to lease the Expansion Space, and Tenant's rights under this Rider shall lapse and be of no further force or effect, if, at the time Tenant would otherwise be entitled to exercise its rights hereunder (or at any time thereafter prior to the commencement of the lease term for Expansion Space), Tenant is leasing less than one hundred percent (100%) of the initial Premises or occupying less than eighty percent (80%) of the initial Premises (except that a sublease to an Affiliate of Tenant or a Parent of Tenant under section 7.4 of the Lease shall be included for the purposes of calculating such occupancy).

6. If Tenant exercises Tenant's right to contract or terminate the Lease pursuant to Rider No. 4, Tenant's rights under this Rider shall be null and void and of no further force or effect.

7. Landlord shall incur no liability, and the expiration date of the term for the Expansion Space shall not be extended, if Landlord is unable to deliver possession of the Expansion Space to Tenant on the anticipated delivery date due to any holdover tenant's refusal to vacate. Landlord agrees to use commercially reasonable efforts to obtain possession of such Expansion Space as soon as reasonably possible, including instituting eviction proceedings.

8. Promptly after Tenant elects in writing to lease any Expansion Space pursuant to this **Rider No. 3**, the parties shall execute an amendment to this Lease (reasonably acceptable to Landlord and Tenant) adding such Expansion Space to the Premises on the terms and conditions specified herein.

RIDER NO. 4
CONTRACTION OR TERMINATION OPTION

1. Subject to the provisions of this Rider, Landlord hereby grants to Tenant the conditional right, exercisable at Tenant's option, either (a) to terminate the Lease effective on December 31, 2027 (the "**Termination Date**"), or (b) to surrender a portion of the Premises comprised of (i) one (1) full floor of the Premises, which floor shall be the highest floor then leased by Tenant (i.e., from the top down), or fifty percent (50%) of the rentable area of such highest full floor, which fifty percent (50%) to be surrendered must be in one contiguous block of space on such floor, and/or (ii) a portion of one (1) partial floor of the Premises, which portion to be surrendered totals at least five thousand (5,000) rentable square feet of contiguous space in a location on such floor that is commercially marketable on customary terms, including a reasonable amount of window-line and reasonable configuration, as reasonably determined by Landlord (as applicable, the "**Contraction Space**"), effective on December 31, 2027 (the "**Contraction Date**"). If Tenant exercises its right to terminate the Lease or to surrender Contraction Space, Tenant may not thereafter revoke such exercise. The contraction and termination options contained in this Rider may be exercised solely in the alternative; if Tenant exercises one such option, the other such option automatically shall be void and without force or effect.

2. (a) Tenant shall exercise its right of termination under this Rider by delivering to Landlord written notice thereof not less than twelve (12) months prior to the Termination Date (the "**Termination Notice**"). In addition, Tenant shall pay to Landlord a termination payment (the "**Termination Payment"**) in an amount equal to the sum of (A) the then unamortized portion of the Improvement Allowance (as defined in Exhibit B), any rental abatement and any other direct costs incurred by Landlord in connection with this Lease (including, without limitation, brokerage commissions and attorneys' fees) as if such costs were amortized over the initial Lease Term with interest at the rate of eight percent (8%) *per annum plus* (B) if the then Premises includes any leased space at the Building other than the Premises initially leased to Tenant hereunder, the then unamortized portion of any improvement allowance, any rental abatement and any other direct costs incurred by Landlord in connection with leasing such space to Tenant (including, without limitation, brokerage commissions and attorneys' fees) as if such costs were amortized over a period beginning on the date Landlord commenced leasing such space to Tenant and continuing through the expiration of the Lease with respect to such space (as such dates were contemplated when Landlord initially leased such space to Tenant) with interest at the rate of eight percent (8%) *per annum*. Landlord shall provide Tenant with the amount of the Termination Payment within thirty (30) days of receipt of a written request therefor from Tenant. Tenant shall pay the Termination Payment to Landlord no later than 180 days prior to the Termination Date.

(b) Tenant shall exercise its right of contraction under this Rider by delivering to Landlord written notice thereof not less than twelve (12) months prior to the Contraction Date (the "**Contraction Notice**"). In addition, Tenant shall pay to Landlord a contraction payment (the "**Contraction Payment"**) in an amount equal to the portion of the Termination Payment that is allocated to the Contraction Space, based on the proportion that the rentable area of the Contraction Space bears to the rentable area of the Premises leased immediately prior to the Contraction Date.

3. (a) If (i) the Termination Notice is not timely delivered to Landlord, (ii) the Termination Payment is not timely made to Landlord or (iii) if a default has occurred and is continuing as of the date Tenant delivers the Termination Notice to Landlord, then, at Landlord's option, Tenant's right to terminate the Lease shall lapse and be of no further force or effect. If a default has occurred and is continuing any time after the date Tenant delivers the Termination

Notice to Landlord, including on the Termination Date, then, at Landlord's option, Tenant's election to terminate the Lease shall lapse and be of no further force or effect; provided, however, if Tenant cures such default prior to the earlier of (A) the expiration of any notice and cure period applicable thereto or (B) the Termination Date, then Tenant's election to terminate the Lease shall be effective.

(b) If (i) the Contraction Notice is not timely delivered to Landlord, (ii) the Contraction Payment is not timely made to Landlord or (iii) if a default has occurred and is continuing as of the date Tenant delivers the Contraction Notice to Landlord, then, at Landlord's option, Tenant's right to contract the Premises shall lapse and be of no further force or effect. If a default has occurred and is continuing any time after the date Tenant delivers the Contraction Notice to Landlord, including on the Contraction Date, then, at Landlord's option, Tenant's election to contract the Premises shall lapse and be of no further force or effect; provided, however, if Tenant cures such default prior to the earlier of (A) the expiration of any notice and cure period applicable thereto or (B) the Contraction Date, then Tenant's election to contract the Premises shall be effective.

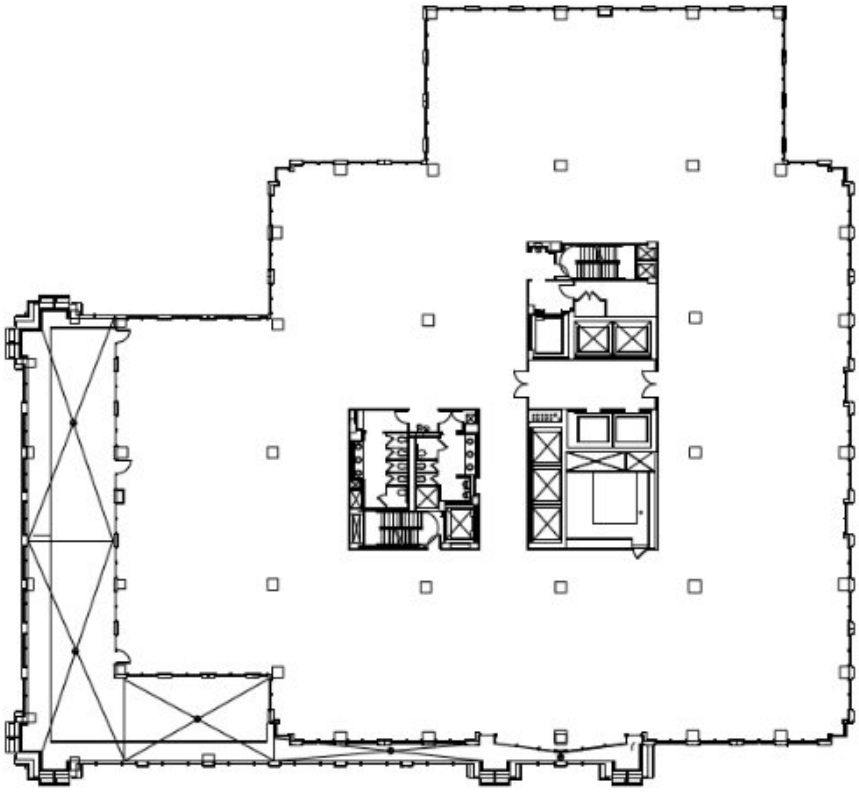
4. (a) If the Termination Notice is timely delivered to Landlord, the Termination Payment is timely made to Landlord and Tenant has satisfied the other conditions set forth in this Section, the Lease shall terminate on the Termination Date. Notwithstanding anything to the contrary in this Section, Tenant shall remain liable for Tenant's obligations under the Lease that arise prior to the Termination Date or that are expressly made to survive the expiration or early termination of the Lease.

(b) If the Contraction Notice is timely delivered to Landlord, the Contraction Payment is timely made to Landlord and Tenant has satisfied the other conditions set forth in this Section, (i) the Lease shall terminate on the Contraction Date solely with respect to the Contraction Space, (ii) Tenant's proportionate share of Operating Expenses, the number of Monthly Parking Permits to which Tenant is entitled, and all other calculations based on the rentable area of the Premises shall be adjusted accordingly and Landlord and Tenant shall promptly execute an amendment to the Lease (reasonably acceptable to Landlord and Tenant) specifying the location and configuration of the remaining Premises, and (iii) Tenant shall be responsible, not later than the Contraction Date, for separating the Contraction Space from the balance of the Premises at Tenant's sole cost and expense in a manner acceptable to Landlord in its reasonable judgment (including, without limitation, closing off, removing or restoring any internal staircase and separating common systems in a manner acceptable to Landlord in its reasonable judgment). Notwithstanding anything to the contrary in this Section, Tenant shall remain liable for Tenant's obligations under the Lease with respect to the Contraction Space that arise prior to the Contraction Date or that are expressly made to survive the expiration or early termination of the Lease.

EXHIBIT A

DIAGRAM OF PREMISES

Fifth Floor



Sixth Floor

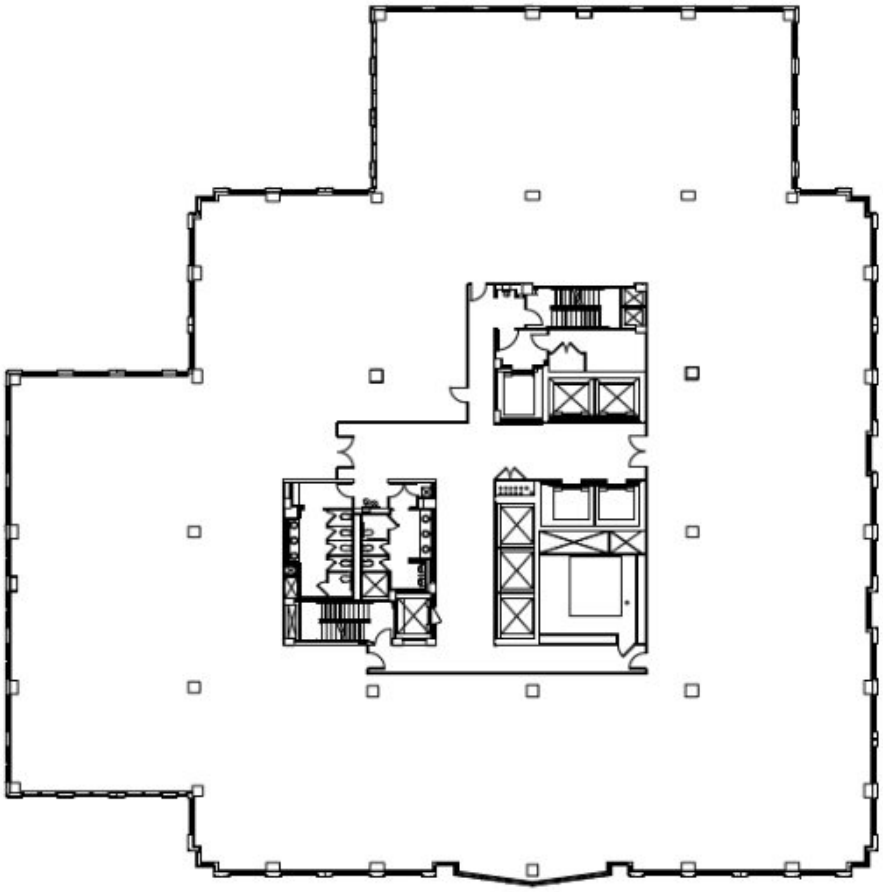


EXHIBIT B

WORK AGREEMENT

All capitalized terms not defined herein shall have the meaning set forth in the Lease.

1. Authorized Representatives. Tenant designates John O'Neill ("**Tenant's Authorized Representative**") as the person(s) authorized to approve in writing all plans, drawings, specifications, change orders, charges and approvals pursuant to this Exhibit (and the act of either of the aforenamed persons shall be sufficient to bind Tenant). Landlord designates Sharon Clayborne ("**Landlord's Authorized Representative**") as the person authorized to approve in writing all plans, drawings, specifications, change orders, charges and approvals pursuant to this Exhibit (and the act of the aforenamed person shall be sufficient to bind Landlord). Either party may designate a substitute Authorized Representative by written notice to the other party. Neither party shall be obligated to respond to any instructions, approvals, changes, or other communications in connection with this Exhibit from anyone claiming to act on the other party's behalf other than their Authorized Representative. All references in this Exhibit to actions taken, approvals granted, or submissions made by either party shall mean that such actions, approvals or submissions have been taken, granted or made, in writing, by such party's Authorized Representative acting for such party.

2. Leasehold Work; Base Building Delivery Condition.

(a) Tenant shall cause the initial leasehold improvements to the Premises made in connection with the Lease (the "**Leasehold Work**") to be designed in accordance with the terms of this Exhibit. Landlord shall cause the Leasehold Work to be permitted and constructed in accordance with the terms of this Exhibit. Upon Landlord's delivery of the Premises to Tenant, (i) the structural elements of the Building, the roof, the exterior walls and window systems and the Building standard heating, ventilation and air conditioning, mechanical, electrical and plumbing systems, pipes and conduits that are provided by Landlord in the operation of the Building or, on a non-exclusive basis, to the Premises, shall be in good working order as of such date of delivery (the "**Systems Description**") and (ii) the base Building restrooms on each floor of the Premises shall be compliant with all applicable codes and conditions in effect as of such date of delivery, including the Americans with Disabilities Act, in each case consistent with "business use" density (the "**Restrooms Description**") (the Systems Description and the Restrooms Description being collectively referred to as "**Base Building Delivery Condition**"). The cost to deliver the Building in the Base Building Delivery Condition upon Landlord's delivery of the Premises to Tenant shall be incurred by Landlord at its sole cost and expense and without deduction from or charge against the Improvement Allowance and without passing the cost thereof through to Tenant in Operating Expenses or otherwise. Additionally, Landlord agrees to modify two (2) of the terrace doors existing as of the Effective Date in the fifth (5th) floor portion of the Premises, and Landlord and Tenant shall cooperate in good faith and in coordination with the Leasehold Architect to implement the most cost-effective solution therefor shown on Schedule IV attached hereto, at Landlord's sole cost and expense.

(b) In the event there is a requirement by Fairfax County or another applicable governmental authority in connection with the permitting of the Leasehold Work or the governmental inspections of the Leasehold Work required for the lawful occupancy of the Premises to perform improvements outside of the Premises to remedy a pre-existing non-compliance with applicable Legal Requirements with respect to the base Building, Landlord shall promptly perform the same at Landlord's sole cost and expense, unless such requirement is a result of the Premises being used or improved for other than general office use or in a manner that is in excess of the business use density for the Building, in which event such improvements shall be at Tenant's sole cost and expense.

3. Architect and Engineers.

(a) Tenant shall engage IA Architects, or such other architect reasonably approved by Landlord, to prepare all plans for the Leasehold Work (the "**Leasehold Architect**"). The Leasehold Architect will use all reasonable efforts to engage the base building MEP Engineer to prepare the engineering drawings related to the Leasehold Work. If the Leasehold Architect is unable to employ the base building MEP Engineer on acceptable terms, after consultation with Landlord, Tenant shall direct the Leasehold Architect to retain another qualified engineer, subject to approval by Landlord, which approval shall not be unreasonably withheld, conditioned or delayed, and Leasehold Architect shall cause the chosen leasehold engineer to coordinate its drawings for the Premises with the base building MEP Engineer. The engineer so engaged by the Leasehold Architect is hereinafter referred to as the "**Leasehold Engineer**."

(b) In addition, Tenant may, at Tenant's election, employ a professional project management or construction management firm, reasonably approved by Landlord, to provide project management services with respect to the Leasehold Work, and Tenant shall pay any fees due to the project manager for such services, which fees may be paid from the Improvement Allowance pursuant to the terms of Paragraph 6 below.

4. Plans for Leasehold Work.

(a) (i) Tenant delivered to Landlord and Landlord approved the schematic design for the Leasehold Work (the "**Schematic Plan**").

(ii) Tenant delivered to Landlord, for Landlord's approval, design development plans, which design development plans shall (A) have been accepted and approved by Tenant prior to delivery to Landlord, (B) have been prepared by the Leasehold Architect and Leasehold Engineer, as applicable, (C) have consisted of a detailed space plan of the Premises upon completion of the Leasehold Work, together with preliminary architectural, mechanical, electrical and plumbing plans, and pricing notes therefor and (D) have been substantially in conformance with the Schematic Plan in the form theretofore approved in writing by Landlord. Upon Landlord's written approval of the design development plans, same shall be deemed to be the "**Design Development Plan**" hereunder.

(iii) On or before December 30, 2020, Tenant shall deliver to Landlord, for Landlord's approval, final, ready for permit construction documents, which construction documents shall (A) be accepted and approved by Tenant prior to delivery to Landlord, (B) be prepared by the Leasehold Architect and Leasehold Engineer, as applicable, (C) consist of all architectural plans, construction drawings and specifications (including, without limitation, a list of all finishes and materials) necessary and sufficient for the construction of the Leasehold Work and to enable Landlord to obtain all necessary governmental permits and approvals for the construction of the Leasehold Work (collectively, the "**Permits**"), and (D) be substantially in conformance with the Design Development Plan in the form theretofore approved in writing by Landlord. Upon Landlord's written approval of such construction documents, same shall be deemed to be the "**Construction Documents**" hereunder.

The Schematic Plan, the Design Development Plan and the Construction Documents (and any other plans and specifications for the Leasehold Work that have been submitted by Tenant and approved by Landlord) shall be referred to herein collectively as the "**Leasehold Plans**."

(b) All plans, drawings and documents related to the Leasehold Work (and any change orders related thereto) shall be submitted to Landlord for its approval in accordance

with this Exhibit, which approval shall not be unreasonably withheld, conditioned or delayed with respect to components of the Leasehold Work that do not constitute Structural Alterations, but which approval with respect to any components of the Leasehold Work that constitute Structural Alterations, may be granted or withheld in Landlord's sole discretion. Landlord shall use commercially reasonable efforts to provide such approval (or any comments thereto) for the design development plans within five (5) business days after Landlord's receipt of a complete submission thereof and for the construction documents within ten (10) business days after Landlord's receipt of a complete submission thereof. Tenant shall incorporate into the Leasehold Work the standard building requirements and materials as reasonably identified by Landlord. Landlord agrees to specify to Tenant in its review of the Leasehold Plans any Specialty Alterations that must be removed by Tenant at the expiration or earlier termination of the Lease Term, it being hereby acknowledged and agreed, however, that notwithstanding anything to the contrary contained in the Lease, Tenant shall not be obligated to remove any internal stair constructed in a location approved by Landlord and Tenant as part of the Leasehold Work, nor shall Tenant be required to remove any alterations or improvements comprising the Leasehold Work which are not either (i) required to be removed pursuant to Section 9.2(i)(i) of the Lease or (ii) Specialty Alterations which are not designated by Landlord for removal concurrently with Landlord's approval of the Leasehold Plans.

(c) If Landlord, acting reasonably, requires that any submission from Tenant be modified in order to obtain Landlord's approval, then Tenant, within five (5) business days after receipt of Landlord's comments, shall resubmit revised documents, plans, specifications or other materials, as the case may be, incorporating Landlord's requested changes, to the extent that Landlord's approval is required by this Exhibit B, and responding to any other issues or questions properly and reasonably raised by Landlord in its review of any prior submission. Such submission and approval shall continue until approval is granted as submitted; provided, however, that the time incurred in connection with any such submissions in excess of the initial two (2) submissions from Tenant for any particular design phase shall be deemed to constitute Tenant Delay to the extent of any delay actually occasioned thereby.

(d) If Tenant requests any changes to the Leasehold Plans after Landlord's initial review and approval thereof, such requested changes ("**Changes**") must be clearly noted on the Leasehold Plans and submitted to Landlord, together with a written narrative describing the changes, for Landlord's additional approval in accordance with Sections 4(b) and 4(c) above. In the event that a Change is approved, and incorporated in the Leasehold Plans for the Leasehold Work, any additional incremental costs which arise in connection with such Change shall be paid by Tenant (from the Improvement Allowance to the extent funds remain available therefor) in accordance with the terms of this Work Agreement.

(e) Tenant shall be solely responsible to ensure that the Leasehold Plans (and each component thereof) comply with all Legal Requirements and with all design standards set forth in the Rules for Construction Projects attached hereto as Schedule II and Landlord's approval thereof shall not constitute Landlord's representation or approval that such plans comply with all applicable Legal Requirements or such design standards. In addition, Tenant shall (and Tenant shall cause the Leasehold Architect and the Leasehold Engineer, as applicable, to) respond, within five (5) business days after receipt, to Landlord's requests for clarifying or additional information concerning the Leasehold Plans as is reasonably required in the performance of the Leasehold Work.

(f) Tenant shall pay to Landlord the reasonable, actual out-of-pocket third-party costs incurred by Landlord in connection with the review and approval of the Leasehold Plans (and any changes thereto), not to exceed a maximum of Ten Thousand Dollars ($10,000.00) in the aggregate (as applicable, the "**Third Party Costs**"), which may be paid from the Improvement Allowance following notice to Tenant.

(g) In addition to the Improvement Allowance, Landlord shall reimburse the Leasehold Architect directly for an amount equal to $13,200.00 to be applied toward the costs to design and prepare the test fit for the Premises.

5. Leasehold Contractor; Cost of Leasehold Work.

(a) (i) In order to improve the efficiency of the schedule for the design, permitting and construction of the Leasehold Work and to encourage well-informed pricing, Tenant has previously engaged the Leasehold Architect to prepare a demolition plan for the Premises, the cost for the preparation of which demolition plan is at Landlord's expense (however all costs incurred for the permitting and performance of such demolition work shall be part of the Leasehold Work to be performed at Tenant's expense, subject to application of the Improvement Allowance), and Landlord shall cause such demolition to be performed promptly thereafter (following Landlord's selection of the Leasehold Contractor, which Leasehold Contractor shall perform such demolition work), at Tenant's expense (subject to application of the Improvement Allowance). Landlord has prepared and Tenant has approved a proposal package for the construction of the Leasehold Work ("**Proposal Package**"), and Landlord has submitted the Proposal Package substantially in the form of **Schedule III** attached hereto to the following mutually agreed upon general contractors, based on the approved Schematic Plan for the Leasehold Work (along with the approved test fit and demolition plan for the Premises): Rand Construction, Hitt Construction, DPR Construction, and Davis Construction ("**Approved General Contractors**"), in order to obtain from such Approved General Contractors a Guaranteed Estimated Maximum Price ("**GEMP**") to include all costs for the construction of the Leasehold Work. The GEMP will include fixed costs for demolition, general conditions, general requirements, fee, and any other subcontractors and materials necessary to Substantially Complete the Leasehold Work by May 15, 2021. The Proposal Package shall require the Approved General Contractors to provide "open book" pricing at the construction document stage with respect to their proposals for the construction of the Leasehold Work. Promptly after Landlord has obtained proposals from those of the Approved General Contractors which submit conforming proposals within the period set forth in the Proposal Package ("**Conforming Proposals**"), Landlord shall provide copies of all such Conforming Proposals to Tenant. After reasonable consultation with Tenant, but not sooner than 5 business days after Tenant's receipt of all materials relevant to such selection received by Landlord, including without limitation the Conforming Proposals and all related materials received by Landlord, Landlord shall engage one of the Approved General Contractors to act as Leasehold Contractor hereunder pursuant to a GEMP approved by Tenant, using price, experience, schedule, proposed team and expected performance value as the criteria for selection, in Landlord's commercially reasonable determination, of the Leasehold Contractor. Without limiting the generality of the phrase "reasonable consultation," Tenant shall concurrently receive all Conforming Proposals and backup documentation, submittals, and statements of qualification received by Landlord, and Tenant shall participate in all meetings and interviews conducted by Landlord throughout the selection process. Following such consultation and selection process, Landlord shall enter into a construction contract with such selected Approved General Contractor selected by Landlord (after reasonable consultation with Tenant) and will proceed with the construction of the Leasehold Work, with such Approved General Contractor deemed to be the "**Leasehold Contractor**" for all purposes hereof.

(ii) Promptly following Landlord's approval of the Construction Documents submitted by Tenant, Landlord shall (or shall cause the Leasehold Contractor to) request bids for the subcontracts in connection the performance of the Leasehold Work in accordance with the process set forth in the Proposal Package, Landlord hereby agreeing that it shall (or shall cause the Leasehold Contractor to) request bids from three (3) qualified subcontractors with respect to each of the major trades (meaning, for purposes hereof,

mechanical, electrical, plumbing, fire protection, millwork, drywall and structural steel), and it shall (or shall cause the Leasehold Contractor to) request bids from qualified subcontractors with respect to all other trade categories, Landlord hereby agreeing to endeavor to obtain three (3) bids for each of such other trade categories. Landlord shall cause the Leasehold Contractor to concurrently provide copies of all such subcontractor bids to Tenant. Following Tenant's review (not to exceed 5 business days) and in consultation with Tenant, Landlord shall engage (or shall cause the Leasehold Contractor to engage) the trade subcontractor that submitted a qualifying, responsible bid, selected by the Leasehold Contractor and approved by Landlord in Landlord's reasonable discretion, to construct the Leasehold Work (or portions thereof) in accordance with the Leasehold Plans, based on price, experience, schedule and expected performance value, all of which bids shall remain subject to the Tenant-approved GEMP for the Leasehold Work provided by the Leasehold Contractor. The engagement of the subcontractors to perform the Leasehold Work shall be on an "open book" pricing basis to Landlord and Tenant, and all such subcontractors shall be licensed, of good reputation, and have a demonstrated capability to perform quality workmanship. Notwithstanding the foregoing, Landlord shall have the right to pre-release and/or pre-order certain materials for the Leasehold Work with the Leasehold Contractor at such times as Landlord and the Leasehold Contractor determine are reasonably required to meet the required construction schedule for the Leasehold Work.

(iii) Tenant acknowledges and agrees that Landlord has the right to cause the Leasehold Contractor, its subcontractors and any other contractors engaged by Landlord in connection with the Leasehold Work to comply with the Rules for Construction Projects attached hereto as Schedule II and with any additional or modified work rules that may be reasonably adopted by Landlord and of which Tenant and the Leasehold Contractor have been given reasonable prior written notice ("**Rules for Construction Projects**").

(iv) Landlord shall have the right, without Tenant's consent but with notice to Tenant, to make minor, non-material "field changes" to the Leasehold Work as may be necessary given the conditions encountered on site, provided that same (A) do not materially increase the portion of the Leasehold Costs comprised of the GEMP approved by Tenant (or any other Leasehold Costs), (B) do not materially delay Substantial Completion of the Leasehold Work, (C) do not alter the Leasehold Work or the intended function of the portion of the Leasehold Work affected thereby in more than a *de minimis* manner, and (D) do not reduce the quality of materials used in the Leasehold Work. Any and all field changes which do not satisfy the foregoing conditions shall be subject to Tenant's prior written approval, which approval will not be unreasonably withheld, conditioned or delayed. Tenant shall approve or disapprove a field change that requires Tenant's approval hereunder within three (3) business days after receipt of notice of such field change together with supporting evidence as to any changes in cost or project schedule, and which notice shall be deemed given if (I) such field change is discussed in regularly scheduled construction meeting(s) at which Tenant's Authorized Representative was in attendance (and the meeting minutes include such discussion) or (II) such field change is posted or otherwise identified (*e.g.*, via an RFI) on the Leasehold Contractor's electronic project management site and Tenant, the Leasehold Architect and Tenant's Authorized Representative receive timely email notifications of such postings. If Tenant does not timely approve or disapprove a field change that requires Tenant's approval hereunder, such event shall constitute a Tenant Delay hereunder (provided that the delay accruing therefrom, if any, results in an actual delay in the substantial completion of the Leasehold Work).

(v) The Leasehold Work shall be performed in a good and workmanlike and safe manner, in substantial and material accordance with the Construction Documents and in accordance with all applicable Legal Requirements.

(b) Tenant hereby approves Landlord to cause the Leasehold Contractor to engage (or otherwise employ) Landlord's base building subcontractors set forth in the Rules for

Construction Projects (each a "**Required Subcontractor**") for all Leasehold Work related to (i) tie-ins to the base building's fire and life-safety system and elevators, (ii) the Building's exterior envelope (including the roof and the glass and glazing systems), and (iii) the base building's HVAC control system to be performed as a part of the Leasehold Work, and Landlord shall exercise commercially reasonable efforts to ensure fair pricing for such work.

(c) All costs incurred in connection with the design of the Leasehold Work and any requested Changes thereto, including without limitation, architectural and engineering fees and other design and construction consulting fees incurred in connection with preparation or revision of the Leasehold Plans with respect to the Leasehold Work, the cost of telephone, data, audio-visual and security cabling and wiring installation applicable to the Leasehold Work, the cost of demolition, construction and installation of the Leasehold Work pursuant to the GEMP approved by Tenant, including without limitation, the costs of acquisition of the materials for the Leasehold Work, and all other costs of performing the Leasehold Work to the extent such costs are payable to the Leasehold Contractor pursuant to the applicable construction contract together with the fees and costs of obtaining the permits for the Leasehold Work (including without limitation reasonable permit expediter fees) are sometimes herein referred to collectively as the "**Leasehold Costs**". All Leasehold Costs shall be borne by Tenant, subject to the permitted application of the Improvement Allowance pursuant to Section 6 below. All amounts payable by Tenant pursuant to this Exhibit shall be considered additional rent.

6. Improvement Allowance.

(a) (i) Provided no Event of Default has occurred and is continuing under the Lease or the Two Freedom Lease (or if an Event of Default then exists, the right to the Improvement Allowance shall toll until such Event of Default has been cured in full prior to the Allowance Deadline defined below, and if not so cured prior to the Allowance Deadline, such right shall be deemed to have been waived and forfeited), Landlord shall grant Tenant an improvement allowance (the "**Improvement Allowance**") in an amount equal to $155.00 *multiplied by* the number of square feet of rentable area in the Premises, which is equivalent to Seven Million Two Hundred Thirty Thousand One Hundred Thirty Dollars ($7,230,130.00) based on 46,646 rentable square feet contained in the initial Premises, to be applied toward the Leasehold Costs, including without limitation, the following costs incurred with respect to the Premises in Tenant's sole and absolute discretion: architectural design fees, engineering services, construction costs, including general contractor's general conditions, overhead and profit, cabling, data and telephone installation and related construction management fees, acquisition, relocation and installation of furniture, fixtures and equipment, acquisition and installation of supplemental HVAC, acquisition and installation of security systems, audio/visual equipment, and other specialty improvements, project management expenses, moving expenses, design, fabrication and installation of Tenant's Top of Building Sign, Landlord's Construction Management Fee, and design, permitting and construction of an internal stair. In addition to the foregoing, if any portion of the Improvement Allowance remains after application to the foregoing, at Tenant's election by written notice thereof received by Landlord not later than the Lease Commencement Date (the "**Additional Abatement Notice**"), any unused portion of the Improvement Allowance shall be applied as a credit against the base rent next coming due under the Lease following any Abatement to which Tenant is entitled pursuant to Article III of the Lease. Notwithstanding anything to the contrary contained in this **Exhibit B**, if and to the extent that Landlord pays to Tenant any amounts pursuant to that certain indemnification letter dated as of July 1, 2020 between Landlord and Tenant (the "**Indemnity Payment**"), the amount of such Indemnity Payment automatically shall be deducted from the amount of the Improvement Allowance available to Tenant pursuant to this **Exhibit B**, Any portion of the Improvement Allowance that remains unreserved and unapplied by the date that is twenty-four (24) months after the Lease Commencement Date (the "**Allowance Deadline**") shall be deemed waived and forfeited. For purposes of this Section 6(a), Improvement Allowance funds shall be deemed

reserved only to the extent that the Leasehold Work for which the Improvement Allowance funds will be applied has been completed and a disbursement requisition for such funds has been submitted to Landlord or with respect to which Tenant shall have provided Landlord with the Additional Abatement Notice described above. The Leasehold Costs shall not include (and Tenant shall have no responsibility for and the Improvement Allowance shall not be used for) the following costs (if any) incurred in connection with the performance of the Leasehold Work and delivery of the Premises to Tenant in the Base Building Delivery Condition: (A) costs incurred to remove Hazardous Materials from the Premises or the surrounding area; (B) costs recoverable by Landlord on account of warranties and insurance; (C) penalties and late charges attributable to Landlord's failure to pay the Improvement Allowance as and when required; and (D) costs to comply with the Base Building Delivery Condition.

(ii) In addition to the foregoing, in the event that Tenant timely elects to convert any Remaining Abatement to Additional Allowance pursuant to Section 3.1(b)(iii) of the Lease, (A) the amount of the Additional Allowance so elected by Tenant automatically shall be applied to increase the amount of the Improvement Allowance dollar for dollar (and all terms and conditions of this Paragraph 6 shall remain applicable to the Improvement Allowance, as increased by the amount of the Additional Allowance), and (B) the amount of the Abatement automatically shall be reduced dollar for dollar by the amount of the Additional Allowance. If Tenant fails to timely elect the Additional Allowance, then Tenant's right to convert Remaining Abatement to Additional Allowance shall be deemed waived and forfeited and Tenant shall have no right with respect thereto.

(b) (i) Landlord shall have the right, from time to time and without the consent of Tenant, to make disbursements of the Improvement Allowance for Leasehold Costs as and when such Leasehold Costs are actually incurred; provided, however, that Landlord shall notify Tenant via email to: {redacted}, {redacted}, and (redacted} at least three (3) business days' prior to making any disbursements for Leasehold Costs and shall include in such notice the Leasehold Contractor's invoice or other invoice to be paid by such disbursement or in the case of the Construction Management Fee, the amount to be disbursed.

(ii) Disbursements of the Improvement Allowance will be made by Landlord for reimbursement of costs incurred by Tenant in connection with the Premises to which the Improvement Allowance is permitted to be applied within thirty (30) days after Tenant's submission of a requisition (together with the supporting documentation required hereunder), which requisitions shall be submitted no more frequently than monthly. Delivery to Landlord by Tenant of all the following shall be a condition precedent to Landlord's obligation to disburse any portion of the Improvement Allowance pursuant to this Section 6(b)(ii): (i) lien waivers for such work from all persons or entities that could file mechanics' or materialmen's liens against the Premises, the Building or the land on which the Building is located, with respect to all work performed or services or materials provided through the date of each such invoice (subject only to receipt of the requisitioned amount); (iii) with respect to any costs for which Tenant has directly contracted, a certificate specifying the cost thereof, together with evidence of such cost in the form of paid invoices, receipts and the like; and (iii) such other documentation as may be reasonably requested by Landlord.

(c) Any portion of the Leasehold Costs in excess of the Improvement Allowance shall be borne by Tenant and shall be paid by Tenant to Landlord as additional rent within thirty (30) days after Tenant's receipt of applicable invoices therefor from Landlord. The following provisions shall apply with respect to disbursement of the Improvement Allowance.

(i) In the event that the Leasehold Costs are equal to or less than the Improvement Allowance, then Landlord shall make disbursements of the Improvement

Allowance for the Leasehold Costs, net of previous disbursements therefrom, and the balance of the Improvement Allowance shall be credited against Tenant's rental obligations in accordance with the terms and conditions of Paragraph 6(a) above.

(ii) In the event that the Leasehold Costs are greater than the Improvement Allowance, then Landlord shall make disbursements of the Improvement Allowance (or such portion thereof as has not previously been disbursed) until such Improvement Allowance is exhausted. If the cost to construct the Leasehold Work, as adjusted by any increase or decrease in Leasehold Costs resulting from change orders, will exceed the unapplied (and unreserved) portion of the Improvement Allowance (the "**Unused Allowance**"), Landlord may then invoice Tenant for the net cost to complete the Leasehold Work (*i.e.*, net of costs for the Leasehold Work previously paid) as adjusted by any increase or decrease in Leasehold Costs resulting from change orders as of such date. Tenant shall pay such invoices, based upon Landlord-approved payment applications from Landlord's contractors and other design professionals and service providers engaged in connection with the Leasehold Work, within thirty (30) days after receipt thereof.

(d) A retainage in an amount equal to five percent (5%) of the Improvement Allowance shall be withheld from disbursement of the Improvement Allowance by Landlord until such time as Tenant causes the Leasehold Architect and the Leasehold Engineer to provide to Landlord the deliverables included as items 3, 5 and 6 of the Close-Out Requirements set forth on Schedule I with respect to the Leasehold Work.

(e) All improvements that are funded by the Improvement Allowance shall be the property of Landlord; provided, however, that upon the expiration of the Lease Term, Tenant shall be required to remove (i) all equipment and/or fixtures that the Lease expressly requires Tenant to remove pursuant to other provisions of the Lease, and (ii) all Leasehold Work required to be removed pursuant to Section 4(b) of this Work Agreement above. Any damage and injury to the Premises or the Building caused by any such removal shall be repaired by Tenant, at Tenant's sole expense.

(f) If Tenant has satisfied all of Tenant's obligations with respect to a disbursement from the Improvement Allowance (including, without limitation, the requirements set forth in Sections 6(a)-(c) above) and Landlord fails to make such disbursement from the Improvement Allowance on or before the date such disbursement is required hereunder, Tenant shall have the right to provide Landlord with a notice stating in bold, all capital letters, **FINAL NOTICE**. In the event Landlord fails to make such disbursement from the Improvement Allowance within five (5) business days following receipt of such Final Notice, then such failed disbursement shall bear interest at the Default Rate from the date Landlord failed to make such disbursement to the date Landlord thereafter makes such disbursement; provided, however, that nothing contained herein shall be construed as permitting Tenant to charge or receive interest in excess of the maximum legal rate then allowed by law.

7. Substantial Completion; Tenant Delay.

(a) Except as provided in Section 7(b) below, the Leasehold Work shall be deemed to be "**Substantially Complete**" or "**substantially complete**" when (i) the Leasehold Work shall have been completed (except only for Punchlist items the non-completion of which, or the performance to completion of which, do not interfere with the use and occupancy of the Premises in more than a de minimis manner) substantially in accordance with the Construction Documents and (ii) the Leasehold Work has passed final governmental inspections required for the lawful occupancy of the Premises. Tenant shall complete (and notarize, if applicable) and

return to Landlord, within three (3) business days after Landlord's request therefor, any information, documentation or forms reasonably required in connection with obtaining such final inspections (the "**Required Tenant Documentation**").

(b) If the Leasehold Work has not passed final governmental inspections because (i) Tenant has not completed Tenant's Work or other improvements, installations or other work to be performed by Tenant (by way of example but not limitation, the installation of low voltage data equipment, security systems, audio-visual equipment, or systems furniture that requires cabling and wiring) or has not timely provided to Landlord any materials required to be incorporated into the Leasehold Work in connection with any improvements, installations or other work to be performed by Tenant (by way of example but not limitation, systems furniture whips, wiring, cabling and installation specifications), in each case, that are required in connection with obtaining such final inspections or (ii) Tenant has not timely completed (and notarized, if applicable) and returned to Landlord any Required Tenant Documentation, then each such day of delay resulting therefrom shall be referred to herein as "**Inspection Delay**."

(c) Notwithstanding the foregoing, if and to the extent Landlord is actually delayed in Substantially Completing the Leasehold Work as a result of: (i) Tenant's failure to comply with any deadline required of Tenant and specified in this Exhibit, (ii) Tenant's failure to properly incorporate the revisions required by Landlord for the Leasehold Plans, (iii) Tenant's request for Changes (whether or not actually implemented) subsequent to the date that the applicable portion of the Leasehold Plans are initially approved as set forth in Section 4 (it being acknowledged that, in some cases, such Change may reduce the amount of time necessary to complete the Leasehold Work), (iv) Tenant's failure to pay when due any sums payable by Tenant pursuant to this Exhibit, (v) Tenant's request for materials, finishes or installations as part of the Leasehold Work for which Landlord provides prior written notice to Tenant that such items constitute long-lead items, and Tenant does not select an alternate non-long lead time item in substitute thereof within three (3) business days following its receipt of such notice, (vi) the performance (or non-performance) of any work by Tenant or its employees, agents or contractors (or subcontractors of any tier), including without limitation, during the Early Access Period, (vii) the failure of the Leasehold Plans to be prepared in accordance with the requirements of this Exhibit, including, without limitation, in accordance with Legal Requirements or any other governmental conditions required for the issuance of permits therefor, (viii) any delay in obtaining a construction permit with respect to the Leasehold Work or any delay in passing final inspections with respect to the Leasehold Work caused by the direct act or omission of Tenant or any person or firm employed or retained by Tenant, including without limitation, any Inspection Delay, (ix) any other wrongful act or omission of Tenant or its employees, agents or contractors (or subcontractors of any tier), or (x) any other event or occurrence that expressly constitutes a Tenant Delay hereunder, then such actual delay in Substantial Completion of the Leasehold Work shall be deemed "**Tenant Delay**." Notwithstanding anything to the contrary contained herein, Landlord shall notify Tenant's Authorized Representative (in writing and with reasonable specificity) of the existence and cause of a potential Tenant Delay promptly after Landlord's Authorized Representative becomes aware of the existence of any such potential Tenant Delay and notwithstanding the preceding sentence, if Landlord fails to so notify Tenant's Authorized Representative (in writing) as soon as reasonably practicable after Landlord's Authorized Representative becomes aware thereof, then any period of delay prior to such notice shall not constitute Tenant Delay; provided, however, that no notice shall be required with respect to any Tenant Delay caused by items (i), (ii), (v), (vii) and (viii) of this Paragraph 7(c) above. In the event of any Tenant Delay, calculated on a day-for-day basis, for purposes of determining the Lease Commencement Date, the Leasehold Work shall be deemed to have been Substantially Completed on the date that it would have been Substantially Completed if such Tenant Delay had not occurred. In addition, Tenant shall be solely responsible for all additional incremental Leasehold Costs actually incurred by Landlord as a direct result of a Tenant Delay (subject to application of the Improvement Allowance).

8. Punchlist and Possession.

(a) A reasonable period of time prior to the date on which Landlord believes the Leasehold Work to be otherwise Substantially Complete, Landlord shall direct the Leasehold Contractor to inspect the Leasehold Work with Landlord, Tenant and the Leasehold Architect and Leasehold Engineer (the "**Inspection**") and prepare a punchlist setting forth any minor defects in design, construction, labor, or materials, or any incomplete work or mechanical adjustments that need to be completed (the "**Punchlist**"). In the event of a dispute as to whether one or more items shall be included on the Punchlist, the written certification of the Leasehold Architect confirming whether such item(s) require(s) correction or completion shall be binding on Landlord and Tenant absent manifest error. Tenant's taking of possession of the Premises (subject to access during the Early Access Period in accordance with the terms of Section 9(b) below) shall constitute Tenant's acknowledgement that the Base Building Delivery Condition described in Section 2(a) of this Exhibit B has been satisfied and that all work and materials supplied by Landlord in connection with the Leasehold Work are satisfactory, except as to any items set forth in such Punchlist and any defects not discoverable in the exercise of commercially reasonable efforts at the time of the walk-through inspection. Landlord, at no cost to Tenant, will cause the Leasehold Contractor to correct and complete the items described in such Punchlist within forty-five (45) days after Substantial Completion of the Leasehold Work. Notwithstanding the foregoing, if any Punchlist item is not reasonably capable of being corrected and completed within the aforesaid forty-five (45) day period, so long as Landlord commences curative action promptly (and within such aforesaid forty-five (45) day period) and proceeds diligently and in good faith thereafter to correct such incomplete item, such correction period shall be extended for a reasonable time necessary to correct such incomplete item.

(b) Landlord, at no cost to Tenant, shall promptly commence and diligently proceed to remedy any Latent Defects following written notice thereof from Tenant, provided Tenant notifies Landlord thereof within twelve (12) months after the date on which the Leasehold Work is Substantially Complete. For purposes hereof, "**Latent Defect**" means any defect in the Leasehold Work (i) that Tenant could not reasonably discover during the inspection described in Section 8(a) above, and (ii) that was not caused by Tenant (or a Tenant Party) and that did arise from the performance of any work performed by Tenant pursuant to Section 9 below or from the performance of any Alterations performed after Substantial Completion of the Leasehold Work. In addition, Landlord agrees that it will obtain industry-standard warranties from the Leasehold Contractor and enforce the same for the benefit of the party having an obligation with respect to the applicable component of the Leasehold Work with commercially reasonable diligence.

9. Limitation on Scope; Tenant Contractors; Early Access.

(a) The following shall not be included within the scope of the Leasehold Work and Landlord shall not be obligated to perform, install or provide the same (collectively, "**Tenant's Work**"): (i) furniture, (ii) audio-visual cabling and equipment, (iii) low voltage IT equipment, (iv) security systems cabling and equipment, (v) non-Building standard signage, (vi) moving or other relocation services, and (vii) the delivery, storage and installation of any of the foregoing. Tenant shall be responsible for managing all contracts with its vendors and contractors with respect to Tenant's Work. All such vendors and contractors shall be reasonably approved by Landlord in writing and in advance of the performance of any work by such vendors and contractors. Tenant shall cause all such vendors and contractors to perform their work in a good and workmanlike and safe manner, in accordance with all applicable Legal Requirements and in compliance with the Rules for Construction Projects. Promptly upon completion of Tenant's Work, Tenant shall provide Landlord with the documents and materials set forth in the

close-out requirements as set forth on Schedule I attached hereto in connection with such Tenant's Work.

(b) Landlord shall allow Tenant and its contractors access to the Premises at approximately sixty (60) days prior to the anticipated Lease Commencement Date for the purpose of performing Tenant's Work (the "**Early Access Period**"). Tenant shall be responsible for managing the contracts with all of Tenant's vendors and contractors performing Tenant's Work and for coordinating Tenant's Work in the Premises prior to the Lease Commencement Date with Landlord and the Leasehold Contractor to ensure that Tenant's Work does not interfere with the Leasehold Work being performed by Landlord. Notwithstanding anything herein to the contrary, neither Tenant nor its contractors or vendors shall have access to the Premises during the times specified by Landlord as times that may cause delay or interference with the activities of or on behalf of Landlord in the Premises. All terms and conditions of the Lease other than Tenant's obligation to pay rent shall apply to and be effective during such Early Access Period.

10. Construction Management Fee; Third Party Costs. Tenant shall pay to Landlord as additional rent (a) a construction management fee (the "**Construction Management Fee**") in an amount equal to one percent (1%) of the "hard construction costs" (excluding the Leasehold Contractor's overhead and profit), not to exceed $20,000.00, and (b) any Third Party Costs pursuant to Section 4(f) above (which Construction Management Fee and Third Party Costs may be deducted from the Improvement Allowance).

Schedules to Exhibit B:

Schedule I Close-Out Requirements
Schedule II Rules for Construction Projects
Schedule III Form of Proposal Package
Schedule IV Terrace Door Options

SCHEDULE I

CLOSE-OUT REQUIREMENTS

SCHEDULE I

CLOSE OUT REQUIREMENTS

The following items are required from the general contractor and/or design team prior to final payment:

1. Operations and Maintenance Manuals (O/M Manual). Two (2) complete sets.
   One (1) hard copy bound in a notebook.
   One (1) PDF copy on USB device.
   O/M Manual to include:
   a. Copy of building permits and Non-Residential Use Permit(s) or Occupancy Permit(s)
   b. Warranty from General Contractor
   c. Warranties from subcontractors and suppliers, including roof warranty if applicable.
   d. Submittals and Shop Drawings – approved, inclusive of the final submittal log.
   e. Subcontractor and Supplier List inclusive of the contact information, name, address, email and telephone number.
   f. As- Built Finish Schedule
   g. TAB Report

2. Final Releases of Liens – General Contractor, Subcontractors, Suppliers as requested.

3. As-Built Drawings. Two (2) complete sets.
   Drawings shall be final, for record, black line prints including all architectural, structural, plumbing, fire protection, elevator, mechanical and electrical.
   All changes made through Request for Information, Field Orders, etc. shall be clearly noted on the As-Built Drawings.
   One (1) bound set, hard copy
   One (1) PDF copy on USB device

4. HVAC Test and Balance Report (TAB Report)
   Boston Properties approved NEBB certified air and water balancing reports, including as-built air balance drawings. Drawings to clearly identify AHU's, VAV boxes and air diffusers by NEBB numbering system.
   One (1) hard copy – Bound in the O/M Manual
   One (1) pdf copy – submitted via email to the Landlord Construction Manager

5. Certificate of Substantial Completion utilizing AIA G704 Form
   Certificate to be signed by all parties inclusive of date of substantial completion, and punch list attached. Transmit to Landlord Construction Manager.

6. Auto-Cad Electronic Files
   Complete architectural and engineering files inclusive of formal changes made during construction. Transmit to the Landlord Construction Manager.

7. Flow Down Provisions – For contracts and projects where flow down provisions are in effect per the lease:
   "Subcontractor/Supplier/Vendor Compliance Certification Form" to be completed and transmitted to the Landlord Construction Manager.
   The Form shall indicate compliance with all relevant and applicable Federal procurement laws, regulations, terms and conditions.

SCHEDULE II

RULES FOR CONTRACTORS

[Attached]

Boston Properties

RULES FOR CONSTRUCTION PROJECTS IN OPERATIONAL BUILDINGS

The following requirements have been developed to ensure that modifications or improvements to the building and/or building systems and equipment are completed to Boston Properties' (BXP) building standards. BXP may, at its discretion, elect to impose additional regulations in order to maintain a level of safety, code compliance and consistency within industry standards.

The review of plans and/or specifications by Boston Properties and its insurers, consultants and/or other representatives, does not imply that reviewed materials comply with applicable laws, ordinances, codes, standards or regulations. Additionally, Boston Properties' review and/or approval does not imply that any work is to be performed at Boston Properties' expense.

Boston Properties has the explicit right to remove from the project any person who does not comply with these rules after 24-hour notice.

I. GENERAL

A. No work will be performed until Boston Properties has received two (2) hard copy sets of drawings and specifications and has given written approval. Boston Properties to receive one (1) hard copy final "for construction" set of documents including all Boston Properties and permit comments, which must be clearly identified, dated and clouded. A complete set shall also be kept on site.

B. Architectural and Engineering firm must clearly depict future adjacent spaces as code compliant in plan, when constructing new demising walls. Contractor may not build, or demolish conditions that would otherwise leave adjacent Tenant spaces non-code compliant.

C. At completion of the work, the Contractor shall furnish to Boston Properties one hard copy and one electronic copy of all "**As-Built Drawings**". As-Built Drawings shall reflect all modifications made to the Construction Documents and shall be comprised of all applicable drawings. For Tenant projects, it is the responsibility of the Tenant to track all close out document requirements listed in the lease and ensure that their Consultants and Contractors submit them to Boston Properties at completion of work.

Architect and Engineer of record shall provide electronic copy on a flash drive and emailed to Boston Properties' designated construction manager and to DC-Drawings@bostonproperties.com. Electronic copy is defined as a full set of both .pdf and AutoCAD (.dwg) drawings, saved down to AutoCAD Version 2011, all X-Reference files bound, and raster images included. USB drive and email subject line should clearly reference the project name and address. Files should be named using the **United States National CAD Standard** followed by a short description and the date on

the final drawings. (https://www.archtoolbox.com/representation/graphic-symbols/condocsheetorder.html)

D. All modifications to the building or to the building systems and equipment must comply with state, federal and local codes and ordinances.

E. All modifications, relocations or additions to the fire life safety within the building, in relation to a construction project, will require the tenant to obtain a building permit, pass final inspections, and obtain a certificate of occupancy, from the jurisdiction having governing authority, prior to any occupancy of the space.

F. For phased construction projects where the demolition occurs as the initial phase and prior to the commencement of the main construction portion, the tenant is required to insure that all fire life safety systems are in full code compliance, as dictated by the jurisdiction having governing authority. This includes but is not limited to, the sprinkler heads being turned upright until the main construction commences. The Landlord, at its discretion, has the right to review and direct fire life safety protocol prior to implementation.

G. The Contractor and its subcontractors shall comply with all applicable federal, state or local laws, regulations, ordinances, rules or codes relating to employment or conditions of employment of its employees, including, without limitation, laws or regulations concerning workers' compensation, social security, unemployment insurance, classification of employees, hours of labor, wages, working conditions, safety regulations and work practices. The Contractor and its subcontractors confirm that their employees are licensed and qualified under all applicable federal, state and local requirements.

H. The Contractor shall comply with all applicable provisions of the Occupational Safety and Health Act, 29 U.S.C. Section 651 et seq., as amended, all applicable standards and regulations promulgated thereunder, and applicable responsibilities under OSHA's Multi-Employer Citation Policy (CPL 02-00-124).

I. Prior to the work commencing, a building permit must be obtained and displayed and an electronic copy is to be provided to Boston Properties.

J. Prior to the work commencing, a construction kick-off meeting must be held with Boston Properties, the Project Manager, the Superintendent, the Tenant Representative and the Contractor. Boston Properties is to be notified and invited to all weekly construction progress meetings, which must include the entire Project Team. The Contractor must provide Boston Properties with a list of all GC personnel and subcontractors working in the

building inclusive of emergency telephone numbers prior to commencing work.

K. The Contractor must provide an on-site project superintendent at all times during ongoing construction when subcontractors are working on site. This superintendent must be knowledgeable of the project's scope of work and have on-site reference materials including "for construction" plans, specifications and MSDS information on all materials used in the performance of the work. If more than one Contractor is working in the building, at the same time, then it is the responsibility of the Contractors to coordinate schedule, and building shared uses, accordingly.

L. Prior to the work commencing, all blinds must be raised and bagged. All window sills and other base building components must be adequately protected and the protection must be maintained. Workers must not stand on windowsills or other building components. Prior to mobilization GC shall survey work area(s) and public areas along with all existing blinds and provide identify deficient items on floor plan or on list provided to Property Management.

M. The Contractor shall repair all existing public area finishes disturbed by the work or damaged by the Contractor's or subcontractor's personnel.

N. Any work that requires access to adjacent Tenant's space must first be coordinated through Boston Properties. Any additional costs of security or building engineering services required due to Contractor's work or during the performance of the Contractor's work shall be charged to the Tenant.

O. All workers must be dressed appropriately when working in an occupied building and in compliance with OSHA standards which includes appropriate PPE. No shorts are permitted.

P. Boston Properties shall approve manufacturer of lockset and key cores for compatibility with building master keying system.

Q. All carts must be furnished with pneumatic tires and rubber bumpers.

R. Smoking is not allowed in and around any occupied building.

S. Radios/Speakers/Music is prohibited on site.

T. Dumping of construction debris into building drains, mop sinks, trash dumpsters, etc. is strictly prohibited. If this does occur, the Contractor shall be charged 200% of the cost of clearing any drain, including administrative time, where evidence of this is found.

U. Base building restrooms within the construction area will not be available for use by the Contractor unless Boston Properties indicates otherwise. Alternative restroom options may be determined by Boston Properties personnel. If Contractor is permitted to use the restrooms, Contractor shall be responsible for any damage, cleaning and stocking during construction. All other base building restrooms are for Tenant use only and are not to be used by construction personnel.

V. Use of the building stairwells for moving construction materials and construction personnel shall be limited to the stairwell designated by Boston Properties.

W. There is to be no communication between the building Tenants, their guests and the Contractor's/subcontractor's personnel.

X. No work will be performed during building operating hours that will disturb or inconvenience any existing Tenants in the building. Examples of noisy work include, but are not limited to:

1. Core drilling and anything that causes building vibration (i.e. dropping heavy materials, chipping concrete, etc.)
2. Shooting track
3. Noxious odors
4. Threading pipe
5. Hammer drilling or impact gun usage
6. Cutting metal ductwork
7. Pulling BX or rigid conduit through metal.

Boston Properties must pre-approve any work that could be deemed to disturb or inconvenience any existing Tenants in the building.

Y. The Contractor shall immediately report any and all accidents to Boston Properties in writing after first notifying Boston Properties' Construction Manager and Property Management by telephone.

Z. Any roof related work must be performed by a roofing Contractor authorized to do so by the roof manufacturer or by Boston Properties (see attached building specific rider for details).

II. INSURANCE

CONTRACTOR'S LIABILITY INSURANCE:

A. The contractor shall purchase from and maintain until final completion with a company or companies lawfully authorized to do business in the

jurisdiction in which the project is located such insurance as will protect contractor from claims set forth below which may arise out of or result from contractor's operations under the contract and for which contractor may be legally liable, whether such operations be by contractor or by a subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

1. Claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;

2. Claims for damages because of bodily injury, occupational sickness or disease, or death of contractor's employees;

3. Claims for damages because of bodily injury, occupational sickness or disease, or death of any person other than contractor's employees;

4. Claims for damages insured by usual personal injury liability coverage;

5. Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including explosion, collapse and damage to utilities and loss of use resulting there from;

6. Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; and

7. Claims for bodily injury or property damage arising out of completed operations.

B. The insurance required shall, at a minimum, include the following insurance coverages:

1. Workers' compensation insurance providing statutory benefits for all persons employed in connection with the construction at the site, regardless of whether such coverage or insurance is mandatory or merely elective under applicable law, with limits of liability and coverage as required by applicable law, or participation in a monopolistic state workers' compensation fund; and Employer's Liability Insurance, or in a monopolistic state Stop Gap Liability Insurance, in an amount not less than $1,000,000 each accident/$1,000,000 each employee/$1,000,000 annual policy limit, including occupational disease coverage with a limit of $1,000,000

per person subject to an aggregate limit of $1,000,000 per annum. Workers' Compensation and Employer's Liability Insurance shall be kept in force for at least one year after final completion.

2. Commercial General Liability Insurance, on an "occurrence" basis, insuring against liability for bodily injury and death, for property damage, and for advertising and personal injury, in an amount not less than $1,000,000 per occurrence and $2,000,000 annual aggregate for bodily injury, death, and property damage, and $1,000,000 per occurrence and $2,000,000 annual aggregate for advertising and personal injury. This insurance shall be on a form at least as broad as Insurance Services Office ("ISO") Commercial General Liability Coverage "occurrence" form CG 00 01 10 01 or another ISO Comprehensive General Liability "occurrence" form providing equivalent coverage approved in writing by owner. This insurance shall include operations-premises liability, contractor's protective liability on the operations of contractor and all Subcontractors and sub subcontractors; products and completed operations; broad form contractual liability coverage including coverage for the indemnity obligations of the contractor under the indemnity provisions of this contract and the contract documents; or for work performed by subcontractors, or for explosion, collapse, underground operations, foundation work, damage to utilities, or loss of use resulting therefrom; if applicable, liability arising out of elevators and escalators; pollution coverage for losses arising out of a hostile fire; and an endorsement amending the aggregate limits to apply on a per location or per project basis. Such coverages and limits are to be maintained continuously after final completion for a period equal to the applicable statute of repose for the jurisdiction in which the project is located.

3. Automobile Liability Insurance for all owned, non-owned, leased, rented, borrowed, and/or hired vehicles (Symbol 1) insuring against liability for bodily injury and death and property damage in an amount not less than One Million Dollars ($1,000,000) combined single limit per occurrence, issued on a form at least as broad as ISO Business Auto Coverage form CA 00 01 07 97 or other form approved in writing by owner.

4. Excess/Umbrella Liability Insurance of not less than $10,000,000 annual aggregate, to be excess over the Employer's Liability, Commercial General Liability, and Automobile Liability Insurance described above. The policy must include an "Aggregate Per Project" endorsement. Such coverages and limits are to be maintained continuously after final completion for a period equal to

the applicable statute of repose for the jurisdiction in which the project is located.

5. Contractor's Pollution Liability Insurance, on an occurrence form, with limits of not less than $2,000,000 per occurrence and in the annual aggregate. Contractor's Pollution Liability Insurance shall include third party claims for bodily injury, property damage and clean-up costs for pollution conditions (including without limitation for mold, fungi, and bacterial matter) arising from Contractor's or any Subcontractor's acts or omissions, negligence or willful misconduct. Contractor agrees to maintain coverage for losses or claims arising from "completed operations" for a minimum of ten (10) years following the Final Completion of the Project. Contractor's Pollution Liability Insurance shall be primary for pollution conditions arising as a result of the performance of the Project.

C. All policies of insurance to be provided by contractor in accordance with this Article II shall be (1) issued by financially responsible companies licensed to issue such insurance in all applicable states and that have an A.M. Best rating of "A-" or better and a financial size category of VIII or larger and otherwise satisfactory to each of the Additional Insured Parties designated herein; and (2) in form and substance satisfactory to the owner and each party designated herein as an Additional Insured Party.

D. All policies of insurance to be provided by contractor in accordance with the contract and shall also insure the interests of the owner, any indemnities and their respective constituent members and partners, each of whom shall be named as additional insureds under such policies. Such insurance shall provide that the additional insureds shall be covered for their costs of defense of any insured claim outside the limits of coverage provided.

E. Prior to date of commencement, contractor shall submit to the owner certificates of insurance and policies in form and substance acceptable to owner evidencing existence of the insurance coverages required under the contract. Each certificate of insurance shall contain a provision that the coverages provided under the respective policies will not be canceled, materially changed or allowed to expire until at least 30 days' prior written notice has been given to owner. If any of the insurance coverages are to remain in effect after final payment is made to contractor, additional certificate(s) of insurance evidencing continuation of such coverage shall be submitted to owner, together with the contractor's final Application for Payment, and a further certificate of insurance shall be delivered to the owner, from time to time, after final payment to evidence the existence of all coverages that are to continue in effect following final payment. Not

less than fifteen (15) days prior to the expiration date of each policy furnished to owner in accordance herewith, contractor shall deliver to owner a certificate of insurance evidencing the renewal of the applicable policy. In addition to the certificates of insurance, copies of the insurance policies shall be delivered to owner within ten (10) days following the commencement of the Work.

F. The indemnitees and such other parties designated by owner (each, an "**Additional Insured Party**") shall each be named as an additional named insured or an additional insured with respect to the commercial general liability insurance, the automobile liability insurance and the excess/umbrella liability insurance required to be provided and maintained in accordance with the contract.

G. The commercial general liability insurance, automobile liability insurance and excess/umbrella liability insurance policies shall be endorsed to (i) provide that the coverage provided thereunder shall be primary and non-contributory (and any liability insurance of each Additional Insured Party shall be secondary and non-contributory); and (ii) waive any right of subrogation against each Additional Insured Party.

H. Contractor is responsible for requiring that each subcontractor and supplier maintain during its subcontract insurance of the type and in the amounts normally required by the contractor, given the subcontractor's or supplier's size and its scope of work, including but not limited to commercial general liability and worker's compensation and for obtaining certificates of insurance evidencing the insurance and naming the owner and the Additional Insureds set forth in the building specific rider.

I. Intentionally omitted.

J. If contractor fails to purchase and maintain or require to be purchased and maintained, any insurance required under the contract, owner may, but shall not be obligated to, upon five (5) days' written notice to contractor, purchase such insurance on behalf of contractor and shall be reimbursed by contractor upon demand for all amounts paid by owner in connection therewith. In no event shall any failure of owner to receive or demand evidence of such coverage prior to contractor commencing the Work be construed as a waiver by owner of contractor's obligations hereunder. Contractor hereby agrees to indemnify, defend and hold owner and each Additional Insured Party harmless from any loss, cost or expense that such parties may incur as a result of contractor failing to purchase and maintain the insurance required hereunder. Compliance by contractor with the insurance requirements contained in the contract shall not relieve contractor of

liability under any indemnity or other provision set forth in the contract or limit contractor's liability under the contract.

CLAIMS:

A. Contractor shall promptly investigate and make a full written report to Boston Properties and to Boston Properties' insurance carriers as to all alleged accidents and/or alleged claims for damage or destruction of the building and the estimated cost of repair and shall perform all necessary recordkeeping related to same. At the request of Boston Properties, contractor shall cooperate with Boston Properties and its insurance carrier(s) in procuring all reports required by the insurance carrier(s) and shall do nothing to jeopardize the rights of Boston Properties and any other party insured under said policies. Contractor and Boston Properties shall each notify the other (and, at Boston Properties' request, contractor shall notify Boston Properties' insurance carriers) of any casualty or of any claim made against the other or both jointly and severally on account of personal injury or property damage, and shall cooperate fully with any insurance carrier in connection with any such claim, which cooperation shall include, without limitation, attendance at meetings and court proceedings and the like; provided, however that, by so cooperating, contractor shall not settle any losses, complete loss reports, adjust losses or endorse loss drafts without the prior written approval of Boston Properties.

B. Contractor shall notify Boston Properties promptly upon the discovery of any defect with respect to the work, without relieving contractor of the responsibility for addressing such defect as a part of its services, as provided elsewhere in the Contract.

C. Contractor shall provide such information to Boston Properties and Boston Properties' insurance carriers and shall attend such meetings as shall be necessary from time to time to ensure that the insurance carried hereunder appropriately addresses issues pertaining to and conditions at the building, including, without limitation, exposure information, loss control and protection of the building and current replacement cost figures.

D. Boston Properties in good faith shall have the right to adjust and settle a loss with insurers unless the Boston Properties' lender exercises its right to join Boston Properties in the adjustment and settlement of any jointly by Boston Properties and its lender.

III. STRUCTURAL

A. GENERAL

1. Design Load on office floor levels is 100 psf, include 20 psf for partitions. Any uniform live load exceeding the design load shall be reviewed and approved by the base building structural engineer.

B. CORE DRILLING

1. Prior to core drilling or cutting, all slabs with any power-driven penetrations greater than ½" depth, must be x-rayed.

2. A plan of all core drills identified and numbered with photos of the scans, dimensions to scans from building columns and or perimeter wall, must be provided to Boston Properties and Boston Properties' base building Structural Engineer. Boston Properties' base building Structural Engineer must review and approve x-rays, scans and associated plan(s) in writing. Prior to commencing the work, such approval shall be provided to Boston Properties' Construction Manager. Structural Engineer review costs must be borne by Tenant, as a project cost.

3. If obstructions are detected, the core drill locations must be moved as required by the base building structural engineer. Ultrasound and GPR are acceptable substitutes for x-ray only upon approval by the base building structural engineer.

C. POST-TENSION REQUIREMENTS

1. For Buildings that are post-tensioned concrete construction, all slabs must be x-rayed. Scheduling of all x-ray scans, must be coordinated with Boston Properties' Building Team a minimum of 72 hours in advance. Provide x-ray technician's horizontal and vertical spread to Boston Properties when making schedule requests. All scans must be performed after hours, as directed by Boston Properties.

2. Concentration of punching shear stresses, reinforcement and post-tensioned cables are heavier around columns. All coring shall be kept away from the column as much as possible. Coring is not permitted in the beams or column drop pads. Locations of all coring shall be approved and backed per tests as indicated. Any coring shall clear post-tensioned cables as directed by base building structural engineer.

3. Duct supports, conduit attachments, ceiling hangers, etc. should all be supported by power-actuated fasteners with maximum slab penetration of 5/8". Hilti HDI-P drop-in anchors with ¾". These hanger locations should

also be coordinated with the formwork paint marketing to avoid the indicated location of the tendons on the underside of the slab.

4. When ceiling, deck or slab is to be painted/sprayed, all post-tensioned markings are to be taped; taping to be inspected and approved by the property management team prior to commencement of slab painting.

IV. LIFE SAFETY

A. GENERAL

1. Contractor shall perform the work in full compliance with NFPA 241 which prescribes the minimum safeguards for construction, alteration and demolition operations necessary to provide reasonable safety to life and property from fire.

B. SPRINKLER

1. Contractor shall furnish Boston Properties with sprinkler submittal inclusive of shop drawings, product data and calculations (if applicable) prepared by subcontractor and ready for submittal to the Fire Marshall. Based on project size, the Contractor is to adhere to the following:

    a. Spaces **under** 5,000 SF. Once approved by the Fire Marshall, the Contractor shall furnish Boston Properties one set of the approved sprinkler shop drawings. Provide Boston Properties with electronic copies of sprinkler submittal inclusive of shop drawings and product data for Boston Properties' review and approval prior to any sprinkler work scheduled (e.g. drain downs, relocation of head, etc.).
    b. For first generation spaces or renovation of spaces **larger** than 5,000 SF, GC is to provide Boston Properties with two (2) hard copies of the following:
        i. Full-size sprinkler plans
        ii. Sprinkler calculations
        iii. Cut sheets highlighting the selected sprinkler heads, pipe, hangers, fasteners and all fittings.
        iv. All components of the sprinkler system to be UL listed and FM approved.

Boston Properties' Risk Management shall review and approve the aforementioned items prior to any sprinkler work scheduled (e.g. drain downs, relocation of head, etc.). Boston Properties' Risk Management review may take up to ten (10) business days to review and comment. GC should incorporate review time in Schedule.

2. The entire sprinkler system should be designed and installed in accordance with NFPA Pamphlet No. 13, 231 and 231C latest issues. If demolition is not immediately followed by a build out, Tenant and/or Contractor must turn up sprinkler heads as directed by Boston Properties and in accordance with all applicable jurisdictional regulations and code requirements.

3. Contractor is to adhere to the following when designing the sprinkler system:

   Note #1: If concealed type sprinkler heads are to be utilized in office areas, the system is to be designed as an Ordinary Hazard Group 1 System. If hybrid pendant installation exists (i.e. concealed, recessed, semi-recessed, etc. in one design), then Ordinary Hazard Group 1 System design always governs.

   Note #2: For light hazard designed systems, as designated by the Boston Properties, the hydraulically most remote design area shall not be allowed a 40% reduction. The minimum design area shall be 1,500 square feet.

   Note #3: Partial Renovation of Space where majority of heads are not relocated:

   (a) Since there is not a quick pendant sprinkler head with FM approval, BXP will allow use of a UL Listed, quick response head, when it also carries an FM Approval standard response (i.e. V3802 sprinkler head).

   (b) It must be confirmed in writing from the General Contractor to BXP that the existing heads with the same physical space are also existing quick response heads and the sprinkler system can support an ordinary hazard group 1 design. If the existing heads are standard response, then the heads must be UL Listed/FM Approved.

   Note #4: Complete Renovation of Space where majority of heads are affected or relocated:

   (a) Standard response head that is UL Listed/FM approved is required.

   Note #5: Sprinkler work will not commence until Boston Properties has received a copy of the sprinkler permit and Boston Properties has approved the sprinkler shop drawings and product data (as well as calculations when necessary) as indicated above.

4. All buildings are to be fully protected by automatic sprinkler systems in accordance with Boston Properties' standards and specifications.

5. All sprinkler systems and equipment are to be designed and installed in accordance with the current standards of the National Fire Protection Association.

6. All equipment, devices, materials, hangers, etc., used in the life safety system installation must be UL Listed and FM Approved.

7. Connections to the base building sprinkler system/standpipe riser shall be provided with a control valve and water flow alarm device. Sprinkler system control valves shall be UL Listed and FM Approved, clockwise closing, indicating valves with supervisory switches.

8. Enclosed, as Attachment "A", is a copy of the "Guidelines for Managing Construction Project Fire Protection Impairments".

C. FIRE ALARM

1. Contractor will not disconnect, tamper with, delete, obstruct, relocate, or expand any life safety equipment, except as indicated on drawings approved by Boston Properties. Contractor shall not interfere with or delay any other Contractors' (or Boston Properties') inspections which are scheduled prior to the Contractor's inspections or testing.

2. The Contractor must take necessary precautions to prevent accidental fire alarms. Contractor will be charged for all emergency response costs and penalty fees imposed by any authority having jurisdiction over the building for any accidental fire alarms caused by their activities. In the event of an increased likelihood of an accidental fire alarm by the Contractor's activities, such as demolition, sprinkler work or hot work, the Contractor must take steps needed to prevent accidental alarms, including but not limited to, monitoring the fire alarm panel for accidental alarms.

3. Any unit or device temporarily incapacitated will be red-tagged "Out of Service" and Boston Properties will be alerted prior to the temporary outage. See attached "Guidelines for Managing Construction Project Fire Protection Impairment".

4. The base building fire alarm system shall monitor all Tenant installed special fire extinguisher/alarm detection systems. The connections to the base building fire alarm system will be at the Tenant's expense.

5. All Tenant installed fire alarm initiation and notification devices that connect with the base building fire alarm system shall match the base building system and be approved by Boston Properties.

6. All connections to the building's existing fire alarm system are to be made only by the subcontractor specified by Boston Properties.

7. Contractor shall perform a ring-down of the affected area, as well as a pre check of the functionality of all fire alarm devices. A report outlining any deficiencies must be submitted to Boston Properties prior to commencement of work. Absent such report, any deficiencies found after commencement of work will be the responsibility of the Tenant and Contractor to correct.

8. All fire alarm testing will be scheduled at least 72 hours in advance with Boston Properties and must occur after normal business hours if the building is occupied.

9. Combustible and hazardous materials are not allowed to be stored in the building without prior written approval of Boston Properties. Material safety data sheets on all materials to be stored in the building must be kept on site and a copy submitted to Boston Properties.

10. Dust protection of smoke detectors must be installed and removed each day (if operational). Dust protection is required during construction to avoid false fire alarms and damaging of detector system. Filter media must be installed over all return air paths to any equipment rooms prior to demolition. The media must be maintained during construction and removed at substantial completion.

11. All corrective work to the fire alarm system due to the Contractor's work shall be charged to the Contractor.

12. Final tie-in of fire alarm work into the base building fire alarm system is to be made by the base building fire alarm Contractor.

V. MECHANICAL, ELECTRICAL, PLUMBING AND VOICE/DATA/LOW VOLTAGE CABLING

A. GENERAL

1. Before any new electrical or mechanical equipment is installed in the building; the Contractor must submit a copy of the manufacturer's data sheets along with complete shop drawings and submittal to Boston Properties for approval.

2. Any installation or modification to building HVAC or electrical systems must be first submitted for review by Boston Properties. This includes base building systems as well as supplemental units and/or exhaust systems. The mechanical and electrical plans must be prepared by a licensed engineer and must show size and location of all supply and return grilles. We may require that Boston Properties' MEP engineer review the MEP drawings. In that event, the Tenant will pay for the cost of this review. We will notify the Tenant prior to engaging Boston Properties' engineer.

3. As required by code and Boston Properties regulations, all telecommunications, data, access control, security, fire alarm, HVAC control, electrical lighting, electrical power, cable and other systems' wiring and piping which is not to be reused by Tenant and is not a part of other Tenants' or base building systems, including but not limited to: conduit, BX/MC cable, "plenum cable" (low voltage electric, telephone, data wiring), plumbing and/or mechanical piping shall be removed from the Risers (as defined in the lease to include ceiling plenums, telephone, mechanical, utility and electrical closets and risers) and shall be removed back to the originating terminal block, panel board, wet stack or source as determined by Boston Properties.

The installation of Tenant equipment (except emergency lighting per code) on the base building emergency power supply systems is not permitted.

4. Boston Properties' Building Engineering Team shall complete a baseline multi-point inspection of the Mechanical Equipment within the Tenant Space prior to (or immediately following) ceiling demolition by the General Contractor. It is the responsibility of the General Contractor to provide 48-hour written notice to Boston Properties identifying when the ceiling demolition will be complete. Prior to commencement of construction, it is the responsibility of the General Contractor to document any mechanical equipment deficiencies and provide an associated report for Boston Properties' review. Failure to provide such report prior to commencement of construction will require any corrections be the responsibility of the General Contractor, in order for Boston Properties to be able to approve the final design and performance of system.

B. MECHANICAL

1. Contractors modifying, or relocating ductwork, air grilles, VAV boxes, etc. must balance the air and water systems as necessary. All air balancing is to be done in the presence of Boston Properties. Two (2) copies of all balance shall be submitted to Boston Properties for review and approval.

2. All Test Adjust Balance contractors must be either NEBB or AABC. The following standard NEBB and AABC terminal unit data must be accounted for within the report:

a. Manufacturer
b. Terminal Type
c. Terminal Model Number
d. Terminal Size
e. Identification/Designation
f. Location (Typically an acceptable mechanical print mark up)
g. DDC Address
h. Fan Design CFM
i. Fan Actual CFM
j. Maximum Primary Air Design CFM
k. Maximum Primary Air Actual CFM
l. Minimum Primary Air Design CFM
m. Minimum Primary Air Actual CFM
n. DDC Maximum/Minimum CFM
o. Fan Speed (High, medium, low, variable, etc.) *
p. DDC Flow Correction/Calibration Factors**
q. For terminals with electric heat, the following shall also be provided:
    i. Provide design and actual KW
    ii. Voltage
    iii. Amperage
    iv. Entering and Leaving temperature readings from terminal

*Note: Item o. Fan Speed – Log fan control voltage (from speed controller) for PSC motors, log control DCV to ECM motors.

**Note: Item q. DDC Flow Correction/Calibration Factors – Verify factor via manufacturer's published inlet velocity ring DP vs. CFM graphs. Provide reference graph with report.

To reduce the possibility that a balance report is rejected, we suggest the Test Adjust Balance Contractor submit a sample report in advance of its work for Boston Properties' approval.

3. Exhaust fans discharging air directly into the ceiling plenum are for room-generated heat transfer applications only. Air cooled condensers and fans used for toilet, smoking, or chemical fumes' exhaust shall not be permitted to be discharged into the ceiling plenum.

4. Tenant-installed supplemental units and equipment are required to have an electric and/or plumbing sub meter. Absent such sub meter, Tenant may incur a flat rate electricity and/or plumbing charge which is to be paid by the

Tenant based on anticipated consumption. Contractor to be responsible for low voltage connections from sub meter to building metering network.

5. All base building mechanical equipment shall be properly protected with pre-filters, dust covers etc. prior to start of work. Protection shall be removed and equipment wiped down at completion.

6. Energy management and building control work is to be performed by the base building controls Contractor (see attached building specific rider for details).

7. Tenant installed equipment that supplements existing base building equipment such as VAV boxes, fire alarm devices, control work; etc. shall be identical to the existing base building equipment to facilitate warranty and maintenance operations.

8. All concealed equipment shall be located with necessary accessibility for maintenance and repair.

9.Tenant shall engage MEP engineer to perform inspection of above ceiling conditions, prior to the Contractor's scheduled ceiling close-in inspection. MEP engineer to provide field report of such inspection findings to Boston Properties, prior to ceiling close-in completion.

10. Contractor shall contact Boston Properties 48 hours in advance for Boston Properties wall and ceiling close-in inspections. All Boston Properties and MEP Engineer Ceiling Inspection reports to be corrected by Contractor prior to ceiling close-in completion.

C. ELECTRICAL

1. Receptacles shall not be installed with building envelope.

2. All circuit breaker panels must be clearly and accurately identified with typed labels and directories.

3. All wiring run outside of Tenant-demised area and in core rooms (i.e. below slab, electrical room, mechanical room or where exposed) shall be in rigid conduit.

D. PLUMBING

1. Any domestic or condenser water connections made to the building's piping system, must include a high quality isolation valve, (brass bodied gate or ball-type) and adequate system drain valves. If the system piping is of a different material a dielectric union must be installed. All valves and

equipment must be easily accessible; access doors are required in drywall or other fixed construction.

2. Compression fittings (e.g. propress, shark bite, etc.) are not permitted at any plumbing connection. Refer to Hot Work Permit Section from Property Management Team prior to commencement of work.

3. Contractor shall provide leak detection system and automatic shut off system to stop flow of domestic cold and hot water to associated plumbing equipment (e.g. sinks, water heater, ice maker, dishwasher, shower, etc.). Request specifications from Boston Properties for building-specific leak detection requirements and sequence of operation.

E. VOICE/DATA/LOW VOLTAGE CABLING

1. All wiring/cabling run outside of Tenant-demised area and in core rooms (i.e. below slab, electrical room, mechanical room or where exposed) shall be in rigid conduit.

VI. PARKING – LOADING DOCK

A. Contractors, subcontractors and their personnel will not use the loading dock area for daytime parking. Boston Properties may permit at its discretion parking at the loading dock. Unauthorized vehicles will be ticketed and towed.

B. Use of the loading dock for deliveries/trash removal must be scheduled through Boston Properties a minimum of 48 hours in advance.

C. Material that does not fit into the service elevator must be delivered through a window opening. The Contractor will be required to properly remove and replace the glass and adequately protect the window framing. Contractor must use base building glass Contractor and request prior approval and scheduling from Boston Properties.

VII. UTILITIES

A. Utilities (i.e. electric, gas, water, telephone, cable) must not be disconnected or interrupted. A minimum of 48-hour notice and written permission from Boston Properties must be provided and attained, respectively.

B. In unoccupied Tenant space under construction or control by the Contractor, the Contractor shall turn off all lights, except emergency lighting, at the end of each workday. In the event the Contractor fails to turn off the non-emergency lighting at the end of each work day, the Contractor will be invoiced for the excess electric consumption at the rate

of $0.01 per square foot, per day.

VIII. SECURITY

A. The Contractor will be responsible for controlling any keys or access cards furnished by Boston Properties and will return them to Boston Properties at the completion of project. There will be a charge to the Contractor for lost or unreturned access fobs/key cards.

B. At the completion of the work day, the Contractor will be responsible for locking all base building areas that were made available by Boston Properties.

C. ID Badges: If requested, Contractors may be required to wear identification badges.

IX. ELEVATORS

A. PASSENGER ELEVATOR

1. Passenger elevators will not be used to move construction material or construction personnel. During full floor construction, Contractor must protect all passenger elevator openings, jambs, call lanterns, call buttons, sills, etc. Lack of protection of the elevator may result in back charges (e.g. service calls, shaft or machine room cleaning, etc.). Contractor to coordinate with Boston Properties for locking off of passenger elevator access to the floor for the duration of construction.

B. SERVICE ELEVATOR

1. The service elevator can be used to move construction personnel at any time during the day, provided the elevator doors are not held open. The service elevator cannot be used to move construction materials, furniture, furnishing or equipment into the building during building operating hours unless approved in writing by Boston Properties. All other usage must be scheduled with Boston Properties with at least 48 hours notice. Contractor shall protect the service elevator's walls with homasote and plywood. In some instances, corex and masonite may be permitted at Boston Properties' discretion. Any costs to repair damage to the elevators including dust or dirt in machine rooms or shaft or costs for service calls resulting from the Contractor's operations will be charged to the Contractor.

X. CLEANING

A. The Contractor will remove all trash and debris daily or as often as necessary to maintain cleanliness in the building(s). The building trash

compactors or containers are not to be used for construction debris.

B. Walk-off mats or other protection must be provided at door entrances where work is being performed.

C. Carpeting shall be protected by masonite or corex as necessary to maintain cleanliness and to protect carpets from damage.

D. Tile, Terrazzo, Stone and wood floors shall be protected from damage as necessary.

E. Contractor will furnish a vacuum(s) with a supply of clean bags and an operator to facilitate ongoing clean- up.

F. Trash removal will be scheduled and coordinated with Boston Properties.

G. Contractors must remove all food cartons and related debris from the work area on a daily basis.

H. Driveway and street cleaning by Contractor will be required when Contractor's work has created mud or debris.

ATTACHMENT A

GUIDELINES FOR MANAGING CONSTRUCTION PROJECT FIRE PROTECTION IMPAIRMENTS

I. IMPAIRMENTS

Impairments to the building sprinkler and fire alarm systems are typically required when renovations involve changes to these systems. The following impairment procedures must be adhered to whenever impairments to the sprinkler or fire alarm systems are required or encountered.

Contractors requiring an impairment shall follow these steps:

1. Request a Red Impairment Tag from Boston Properties' Impairment Coordinator and be prepared to fulfill the responsibilities assigned to the Contractor.

2. Assist the Impairment Coordinator in completing the Pre-Impairment Checklist part of the Red Impairment Tag (Part A).

3. The "hard copy" of the Red Impairment Tag is placed on the impaired equipment.

4. Upon completion of work and/or to release the impairment the Contractor shall return the Red Impairment Tag "hard copy" to the Impairment Coordinator.

5. The Contractor and Impairment Coordinator place both parts of the tag together and complete the system restoration checklist (Part B) including signing off that the restoration is complete.

Enclosed as Attachment A-1 is a copy of the Impairment Tag. Important points are as follows:

- A Red Tag Permit is required for any impairment of the sprinkler / fire alarm systems.
- Each permit will be valid for one shift.
- Plan all work to minimize the duration of the system(s) impairment.
- The actual impairment of the system(s) should not take place until all personnel, material and equipment are at the work location.
- If possible, isolate only the work zone for impairment. System(s) must be restored at the end of the work shift.
- Impairments to large areas or that would affect primary life safety system(s) should be scheduled for times when the building or area is unoccupied. Fire watch tours of the

impaired area shall be established and if applicable, personnel should be provided at closed valves or fire pumps to quickly restore the system if a fire occurs.

- Hot work or other hazardous-type operations shall not be conducted in an area where the fire protection or life safety system(s) are impaired.
- If any hot work or hazardous operations are necessary as part of the impairment, fire watches must be established.

II. HOT WORK

A Hot Work Permit is required for any temporary operation producing open flame or sparks. This includes brazing, cutting, grinding, soldering, pipe thawing, torch applied roofing and welding.

Contractors requiring a hot work permit shall follow these steps:

1. Request a Yellow Hot Work Permit from Boston Properties' Impairment Coordinator and be prepared to fulfill the responsibilities assigned to the Contractor.
2. Assist the Impairment Coordinator in completing Part A of the Yellow Hot Work Permit.
3. The "hard copy" of the Yellow Hot Work Permit is placed at the work location.
4. Upon completion of the hot work, the Contractor shall complete Part B of the Yellow Hot Work Permit and return the "hard copy" to the Impairment Coordinator.
5. The Contractor and Impairment Coordinator place both parts of the tag together and sign off/close the Yellow Hot Work Permit.

Enclosed as Attachment A–2 is a copy of the Hot Work Permit. Important points are as follows:

- If there is a practical and safer way to do the job without hot work and that is approved in advance by Boston Properties, that method should be used.
- No hot work is permitted without authorization from Boston Properties' representative serving as, the fire safety supervisor / impairment coordinator, in the form of a signed hot work permit. This permit will be valid for a maximum of one eight-hour shift. After this time, another permit must be obtained from

and signed by the fire safety supervisor / impairment coordinator, before any additional hot work can continue.

- Specific firefighting equipment and protection material will be required at the hot work site before work starts. Contractor shall provide all equipment and protection required to ensure fire safe operations or otherwise specified by Boston Properties.

- No hot work is permitted without a designated fire watch present. The Contractor is responsible to provide necessary personnel to conduct a fire watch for four (4) hours after the hot work has been completed. The subcontractor completing the work will monitor the work the 1st hour with the Contractor monitoring the last 3 hours. The four (4) hour fire watch overrides the timeframe indicated on the sample hot work permit. The Contractor will notify Boston Properties upon completion of the hot work and that the four (4) hour fire watch has commenced. If unsafe conditions are observed, the hot work operation will be stopped until the hazard is neutralized or eliminated. Additionally, the fire safety supervisor / impairment coordinator must be notified immediately of all unsafe or hazardous conditions.

- The Contractor will verify that all equipment associated with the hot work is in proper working order. An inspection of the equipment may be conducted by the fire safety supervisor / impairment coordinator before the hot work permit is issued. Any unsafe equipment must be removed from the property and replaced prior to starting hot work.

- All Contractor-owned equipment or materials stored in the facility overnight must be properly secured in an area designated by the fire safety supervisor / impairment coordinator.

- A sprinkler impairment and hot work in the same zone at the same time will not be allowed.

Attachment A–2

Boston Properties — Impairment Tag

CONTROL NUMBER _____ Revision 01/02

Property: _____ Area: _____

System(s): _____ Equip I.D. #: _____ Date: _____

All items in Part A should be completed prior to any fire protection or life safety system impairment, with the exception of impairments conducted as part of a documented routine test procedure, where the system(s) can be immediately restored by standby personnel. Part B should be completed as part of the restoration procedure.

PART A: PRE-IMPAIRMENT

	Yes	No	N/A
1. Boston Properties' Impairment Guidelines have been reviewed?			
2. Was this impairment planned?			
3. Scope of impairment has been reviewed with property management?			
4. Work will be performed continuously until protection is restored?			
5. The following notifications have been made:			
Impairment Database			
Fire Department			
Fire Alarm Monitoring Company			
Security			
Tenants			
6. Hazardous operations have been terminated (Hot Work)?			
7. Additional fire extinguishers/charged hose lines have been located in impairment work area?			
8. Security rounds have been modified to include impairment areas/increased rounds?			
9. Impairment tags have been completed and placed on impaired systems?			

Completed by: _____ Date: _____

Reviewed by: _____ Date: _____
Impairment Coordinator

PART B: SYSTEM RESTORATION

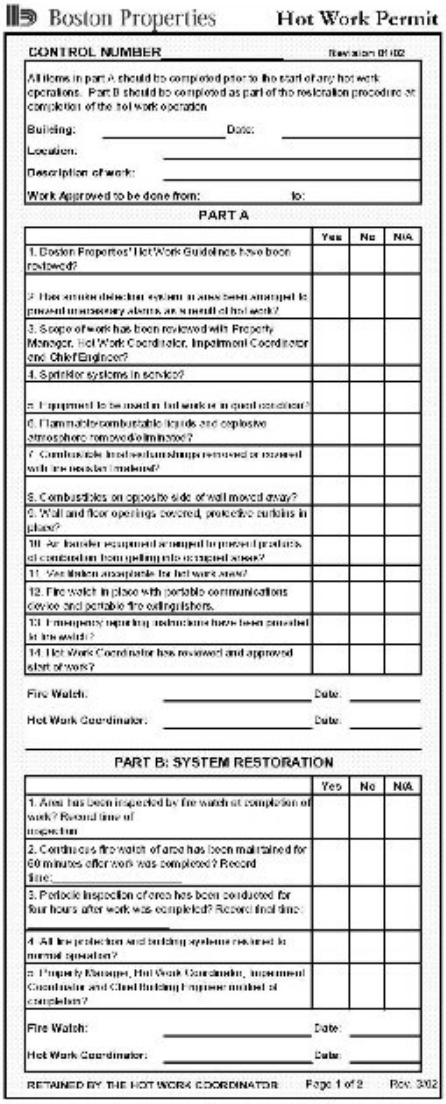
	Yes	No	N/A
1. All systems have been restored?			
2. Work area has been inspected and found to be satisfactory?			
3. Operational test of system has been completed with satisfactory results?			
4. All parties notified in Part A, Section 4, have been notified that system(s) are restored?			
5. Tags and status boards have been cleared?			
6. Any fire equipment displaced has been returned to original location?			

Completed by: _____ Date: _____

Reviewed by: _____ Date: _____
Impairment Coordinator

RETAINED BY IMPAIRMENT COORDINATOR Page 1 of 2

(second page of tag is identical and is placed on impaired equipment)



Boston Properties **Hot Work Permit**

CONTROL NUMBER _____ Revision 01/02

All items in part A should be completed prior to the start of any hot work operations. Part B should be completed as part of the restoration procedure at completion of the hot work operation

Building: _____ Date: _____

Location: _____

Description of work: _____

Work Approved to be done from: _____ to: _____

PART A

	Yes	No	N/A
1. Boston Properties' Hot Work Guidelines have been reviewed?			
2. The smoke detection system in area has been changed to prevent unnecessary alarms as a result of hot work?			
3. Scope of work has been reviewed with Property Manager, Hot Work Coordinator, Impairment Coordinator and Chief Engineer?			
4. Sprinkler systems in service?			
5. Equipment to be used in hot work is in good condition?			
6. Flammable/combustible liquids and explosive atmosphere removed/eliminated?			
7. Combustible floor/wall/furnishings removed or covered with fire resistant material?			
8. Combustibles on opposite side of wall moved away?			
9. Wall and floor openings covered, protective curtains in place?			
10. Air handler equipment arranged to prevent products of combustion from getting into occupied areas?			
11. Ventilation acceptable for hot work area?			
12. Fire watch in place with portable communications device and portable fire extinguishers.			
13. Emergency reporting instructions have been provided to fire watch?			
14. Hot Work Coordinator has reviewed and approved start of work?			

Fire Watch: _____ Date: _____

Hot Work Coordinator: _____ Date: _____

PART B: SYSTEM RESTORATION

	Yes	No	N/A
1. Area has been inspected by fire watch at completion of work? Record time of inspection:			
2. Continuous fire watch of area has been maintained for 60 minutes after work was completed? Record time:			
3. Periodic inspection of area has been conducted for four hours after work was completed? Record final time:			
4. All fire protection and building systems returned to normal operation?			
5. Property Manager, Hot Work Coordinator, Impairment Coordinator and Chief Building Engineer notified of completion?			

Fire Watch: _____ Date: _____

Hot Work Coordinator: _____ Date: _____

RETAINED BY THE HOT WORK COORDINATOR Page 1 of 2 Rev: 3/02

(second page of tag is identical and placed at site of hot work)

Boston Properties
One Freedom Square

RULES FOR CONTRACTORS WORKING IN OCCUPIED BUILDINGS – BUILDING SPECIFIC RIDER

Building Address:	11951 Freedom Drive Suite 100, Reston, VA 20190	
Hours of Operation:	Monday through Friday: Saturday:	7:00 AM to 7:00 PM 8:00 AM to 2:00 PM

Additional Insureds:

One Freedom Square, L.L.C., a Delaware limited liability company
Boston Properties Limited Partnership, a Delaware limited partnership
Boston Properties, Inc., a Delaware corporation
BP Management, L.P., a Delaware limited partnership

Certificate Holder:

One Freedom Square LLC
c/o Boston Properties
2200 Pennsylvania Avenue NW, Suite 200W
Washington, DC 20037

Required Contractors and Vendors

Access Control:	Datawatch
HVAC Controls:	EMS Technology
Fire Alarm Tie-Ins:	Seimens Brad Turgeon – (301) 837-2605 Brad.Turgeon@Siemens.com
Elevator Service:	Otis
Roofing Installer:	Prospect Waterproofing
Roofing Manufacturer:	Henry
Exterior Glazing:	LBL SkySystems
Base Building Structural Engineer:	IMEG

Daniel Goff – (703) 860-8865
Email: Daniel.E.Goff@imegcorp.com

Recommended TAB Contractors:

1. Comfort Control – (301) 931-9300 – contact: Darren Aley
2. Metro T&B – (301) 808-3660 – contact: James M. Noto
3. Seneca Balance, Inc. – (410) 665-1281 – contact: Eric Fleischer

Special Conditions:

1. All appliances (e.g. coffee machines, refrigerators, ice makers, drink machines and any other appliances or equipment that must have a water line attached) must have a copper water supply line with a shut-off valve. The shut-off valve must be within 2 feet of the equipment. This shut-off must be accessible without moving the equipment. All drain lines must be copper and drain into a waste line or open site drain.

2. Post Tension Requirement

   The buildings are post tension concrete structures, all slabs must be x-rayed and x-rays reviewed by Boston Properties' base building structural engineer prior to core drilling or power driven penetrations greater than ½" in length. If obstructions are detected, consult with the Structural Engineer to relocate the core drill as necessary during their review to BXP. Provide approval to BXP prior to scheduling core drilling.

- Concentration of punching shear stresses, reinforcement, and PT cables are heavier around the columns. Keep any coring away from the columns as much as possible. No coring is permitted in the beams or column drops. Location of all coring shall be approved and backed by tests as per above. Any coring shall clear PT cables by 3" minimum and rebar by 1" minimum.

- Duct supports, conduit attachments, ceiling hangers etc. should all be supported by power actuated fasteners with maximum slab penetration of 5/8". Hilti HDI-P drop-in anchors with 3/4" may be used with the assumption that the drill bit will penetrate a maximum of 3/4". These hanger locations should also be coordinated with the formwork paint markings to avoid the indicated locations of tendons on the underside of the slab.

  Design load on office floor levels is 100 PSF including 20 PSF for partitions. Any uniform live load exceeding the design load shall be reviewed and approved by the base building structural engineer.

All hangers and inserts placed in the concrete to support loads of more than 1000 lbs. shall be reviewed and approved by the base building structural engineer.

Finishing of Slab/Post Tension Markers:

All post-tension markings are to be taped; taping to be inspected and approved by the Property Management team prior to the commencement of any slab painting.

SCHEDULE III
FORM OF PROPOSAL PACKAGE
[attached]

bxp Boston Properties

Bid Instructions

FireEye Tenant Improvements – Floors 5 and 6

One Freedom Square

November 4, 2020

I. General Information

A. Objective

The intent of this Request for Proposal (the "RFP") is to solicit a comprehensive proposal (the "Proposal") for the work required to construct:

Project: FireEye Tenant Improvements - Floors 5 and 6
Location: One Freedom Square
11951 Freedom Drive
Reston, VA 20190

Project Team:

- Owner - Boston Properties ("BXP")
- Tenant – FireEye
- Tenant Representative - JLL
- Architect - IA
- MEP Engineer – CMTA

Project Description:

This Project is based on FireEye's strategic relocation of their premises to align with future office environment design and represent FireEye as a leading cyber security company. The Project is comprised of 46,646 RSF evenly spit on located on the fifth (5th) and sixth (6th) floors. The existing interior build-out will be demolished and replaced with an entirely new build-out to accommodate approximately 296 employees. Key elements include: reception, conference rooms, team areas, pantries, unisex restrooms, tech bar, IT Lab, private offices, SOC, open workstation areas, copier/print areas and an internal stair.

Proposal Type:

The work will be performed to comply with requirements associated with BXP's FireEye Lease Agreement. The Proposal shall establish and include a Guaranteed Estimated Maximum Price (the "GEMP") to include all costs for the interior improvements as indicated in the RFP Pricing Documents (the "Documents"). The GEMP will include fixed costs for demolition, general conditions, general

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requirements and fee, as well as estimates for any and all other subcontractor, supplier and material costs necessary to meet the Substantial Completion Date.

The Construction Contract will be between BXP and the selected Contractor. After careful evaluation and after consulting with JLL, BXP will select and award the Project to the "Best Value" general contractor (the "Contractor").

Contractor's Proposal shall include all labor and material required to meet the Substantial Completion and Final Completion as noted below. The Proposal should include a list of possible, anticipated, long lead items based on experience building tenant spaces of this nature.

Demolition Documents will be available and distributed per the below "Bid Dates". A fixed price for the demolition shall o be included in the Proposal. The selected Contractor will be expected to perform Demolition as soon as reasonably possible to keep off of the critical path.

The selected Contractor will then be required to present a minimum of three qualified subcontractor bids for all trades based on the pending Tenant Interiors 100% Construction Set to be issued in accordance with date below. The subsequent subcontractor bid process will be managed by the Contractor in a transparent manner and the GEMP will be converted into a negotiated lump sum amount. That is, the Contractor will present subcontractor bids for BXP and the Tenant's review in an open book manner as the negotiated lump sum is established with its corresponding subcontractor buy-out contingency. Subcontractor proposals, clarifications and exclusions, emails, other written back-up, including notes, scope sheets and similar documents, informing the Lump Sum will be available to BXP during this open book process.

B. Bid Dates

1. RFP Issuance ("Pricing Documents") – **Wednesday, November 4, 2020**
2. Bid Addendum #1 ("Schematic Design Documents") – **Friday, November 6, 2020**
3. Bid Addendum #2 ("Demolition Documents") – **Monday, November 9, 2020**
4. Pre-Bid Requests for Information (RFI) Due – **Tuesday, November 10, 2020**
5. Responses to Pre-Bid RFI – **Thursday, November 12, 2020**
6. Proposal Due Date - **Thursday, November 19, 2020 @ 4:00 PM**

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7. Prospective Contractor Presentations (virtual) – **Monday, November 30 or Tuesday, December 1**
8. Anticipated "Best Value" Contractor Selection – **Monday, December 7, 2020**

C. Other Important Dates

1. Issuance of 100% Construction Documents – **Wednesday, December 23, 2020**
2. Anticipated Building Permit Issuance – **Tuesday, March 2, 2021**
3. Substantial Completion Date – **Friday, May 14, 2021**
4. Punch List Completion / Ready for Tenant Occupancy – **Friday May 28, 2021**

D. Questions – Submit all questions in writing, electronically, to Sharon Clayborne - sclayborne@bxp.com.

E. Site Visit – Contractors may schedule a site visit via electronic request to rtcconstruction@bostonproperties.com. Once the visit is scheduled, the contractor will meet a property management representative to view only the public and/or accessible areas, relevant to the Project. Facemasks will be required at all times. No clarifications will be provided at this site visit. The purpose of the visit is to observe the existing conditions of the building.

F. Construction Contract

1. BXP will utilize our standard "Master Contract for Construction" form. All prospective contractors have an active Master Contract for Construction on file with BXP. The Project's work will be directed via a Work Authorization(s) which will include the following BXP standard shared Savings clauses:

a) Any and all cost savings attributable to elimination of portions of the Work, reductions in the scope of the Work or cost-savings substitutions (including Value Engineering) initiated by the Owner shall inure solely to the benefit of the Owner. Such savings shall reduce the Contract Sum by the amount of such cost savings, plus a pro rata portion of the fee, insurance and bond/subcontractor default insurance costs, without reduction of general conditions

b) Any and all cost savings attributable to elimination of portions of the Work, reductions in the scope of the Work or cost-savings substitutions

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(including Value Engineering) initiated by the Contractor shall inure solely to the benefit of the Owner on a direct cost basis (that is, the Contract Sum shall be reduced by the amount of such savings, plus a pro rata portion of the insurance and bond/subcontractor default insurance costs without reduction of general conditions or the fee).

c) Any and all cost savings attributable to the actual final subcontracted amount purchased by the Contractor that are less than the amount of the subcontractor bids presented by the Contractor and utilized by the Owner and the Contractor to establish the Contract Sum set forth in Section V, shall be used to create a "Bid Savings Contingency Pool." The Bid Savings Contingency Pool is intended to be used by the Contractor, with the Owner's prior consent, for the purpose of funding actual costs incurred for items that should have been reasonably anticipated by the Contractor when the Owner and the Contractor established the Contract Sum. To the extent that there is any remaining balance in the Bid Savings Contingency Pool at the completion of the Project, or at any other time mutually agreed upon, the Contract Sum shall be reduced by seventy-five percent (75%) of said Bid Savings Contingency Pool and the residual twenty-five percent (25%) shall be added to the Contractor's fee.

2. This Project will be managed in a transparent manner. All cost information will be considered an open book until the "negotiated lump sum amount" or Contract Sum is established.

G. Documents

1. RFP Documents will be transmitted to the General Contractors from BXP
2. Documents Include:
   a) Architectural Documents with pricing notes/narrative,
   b) Rules for Construction Projects in Operational Buildings,
   c) COVID-19 Rider, dated April 17, 2020
   d) One Freedom Square Rules Rider

H. Best Value Selection - BXP intends to select the Contractor, after carefully evaluating and reviewing all Proposals. The Contractor selection will be made on a "best value" basis in consideration of the Construction Schedule, Contractor's staff and key personnel,

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Contractor's proposed fixed cost, and other items listed in Section II - Proposal Requirements below.

II. PROPOSAL REQUIREMENTS

A. Proposal Submission – The contractor shall submit one (1) electronic copy of the Proposal, via email, to be received by BXP at the due date and time. Electronic copy

a) Email: Sharon Clayborne sclayborne@@bxp.com
b) Email cc: David Miller dmiller@bxp.com

All formal correspondence from Contractor shall be directed to BXP.

B. Bid Form - Fill out the Bid Form provided with the understanding that the following items are of importance:

1. General Conditions
   a) Staffing costs, identifying the % of time allocated on this Project
   b) Costs, other than Staffing
2. General Requirements
   a) Gross Receipts' Tax and other applicable taxes
   b) Subcontractor Default Insurance Rate, if proposed
   c) Liability Insurance Program Rate
   d) Insurance Experience Rating Modifier
   e) Any and all applicable mark-ups rates
3. Contractor's Fee
4. Change Order Mark-Up Structure, percentage fee
5. Preconstruction Services Fee, if any

C. Construction Schedule - Propose a comprehensive Construction Schedule that identifies and includes the following:

1. Critical path activities
2. Long lead items

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3. Durations for the following:
    a. Overall project
    b. Floor by floor demolition
    c. Floor by floor construction identifying any early Release Requirements within floor by floor construction
4. Milestones for the following:
    a. Floor by floor Ready for Furniture dates
    b. Commissioning / Punch List
    c. Substantial Completion
    d. Final Completion

D. Personnel and Organizational Chart - Propose a staffing chart indicating time periods (durations) for personnel including percentage of time for the Project. Include all essential team members to be assigned to the Project. Include resumes for project executives, project managers, and superintendents. Provide an organizational chart to diagram the Contractor's job site and regional office staff.

E. Subcontractors - Identify all early trades. Additionally, provide a spreadsheet listing the proposed subcontractors for all trades, which the Contractor intends to solicit proposals based on the upcoming 100% Construction Document Set issuance.

F. Clarifications – Identify and list all qualifications, assumptions and exclusions associated with the Proposal. Please especially identify all comments pertaining to BXP's Construction Contract (see Section I., H) and specifically note any exceptions.

G. Site Logistics – as needed.

H. Safety Plan – Submit a copy of the Contractor's Safety and Health Program and describe the approach to site management and job site safety, including Covid-19 preventative measures and regulations.

I. Allowances – Identify and list all Allowances recommended to complete the Project.

J. Value Engineering – Submit a list of value engineering suggestions with associated savings values. Do not include the respective savings or cost associated with any value engineering suggestions in the proposed GEMP.

K. Substitutions – Do not include any material substitutions in the GEMP. Material substitutions can be presented for consideration as a value engineering suggestion.

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L. Alternates – Propose an Alternate value for each of the following items. An Alternate is defined as the cost or credit for elective work to be added or deducted from the Contract Sum if exercised by BXP. Alternates shall include general conditions, overhead and fee. Alternates shall not be included in the GEMP amount.

M. Unit Cost – Propose a Unit Cost for each of the following items. A Unit Cost shall include all markup, including general conditions and fee, which may, when multiplied by the applicable quantity, be used to calculate change order amount.

N. Special Breakdowns – Identify the Special Breakdown for each of the following items; interconnecting stair, patio accessibility code requirements. A Special Breakdown is defined as the value associated with a defined portion of the Project that is already included in the Estimate amount. Each Special Breakdown identifies the value of work, along with the corresponding general conditions and fee.

O. Bid Exclusions – Exclude the following items from the Proposal:

1. Builder's Risk Insurance. BXP shall provide.
2. Third Party Commissioning Agent services.
3. Allowances – unless specifically noted
4. Contingency
5. Performance & Payment Bonds

III. Miscellaneous Considerations --Address the following items in the Estimate:

A. **Building Permit** –BXP will procure the building permits and will be responsible for all associated costs. The Contractor will be responsible for fulfilling all requirements of Fairfax County other than those portions of the County requirements specifically designated to the BXP. The Contractor is responsible for the procurement and cost of all subcontractor trade permits and other miscellaneous trade permits. The Contractor shall schedule and conduct all required pre-construction meetings required by the County prior to starting work.

B. The Tenant will engage other vendors and subcontractors to perform Low Voltage / Structured Cabling, Furniture and Accessories, Audio / Visual Systems, and Security / Access Control Systems (the "Tenant Contracted Work"). Contractor shall include all industry standard required coordination of these trades within the scope of the

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contracted work to allow for the Tenant Contracted Work to be completed within the time allotted for the Project as follows:

a. ***Low Voltage/Structured Cabling*** - The cost of this Tenant Contracted Work **SHALL** be included in the GEMP. Furnishing and installation of all required low voltage/structured cabling for voice/data systems **shall be included in the Contractor's scope of work.** The Contractor will be responsible to contract with the FireEye's preselected low voltage vendor(s), and coordinate with the FireEye, the Architect, JLL and BXP for this scope. The Estimated low voltage/structured cabling cost is $300,000 or $6.43/PSF.

b. ***Furniture and Accessories*** - The cost of this Tenant Contracted Work (Furniture and Accessories) **SHALL NOT** be included in the GEMP. The space will be furnished with new and relocated (from FireEye's existing Two Freedom Square premises) furniture and accessories. The layout and selection of this furniture will occur under the scope of the furniture dealer. **However,** the Contractor shall be required to provide rough-in infrastructure all final connections for the FireEye's furniture and equipment. Fire Eye will furnish any and all furniture whips to the Contractor.

c. ***Audio / Video Systems*** - The cost of this Tenant Contracted Work (Audio/Video Systems) **SHALL NOT** be included in the GEMP. All Audio / Video Systems will be installed by FireEye's vendor under a separate contract. **However,** the Contractor shall be responsible to coordinate with FireEye's vendor. All raceways, power, and in-wall blocking shall be provided as shown on Bid Documents by the Contractor.

d. ***Security and Access Control Systems*** - The cost of this Tenant Contracted Work (Security and Access Control Systems) **WILL NOT** be included in the GEMP. All Security and Access Control Systems will be installed by FireEye's vendor under a separate contract. All electrified hardware shall be the furnished and installed by the security vendor. However the Contractor will be responsible to coordinate with the Security vendor, including review and coordination of the doors & hardware.

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C. **Facilities**—Temporary facilities and all costs associated with field operations are the responsibility of the Contractor and should be included.

D. **Utilities**—BXP shall be responsible for the utility usage during construction until the point of Substantial Completion.

E. **Protection**—Contractor will be responsible to protect all perimeter window systems from construction damage as well as all pathways to building core rooms. Contractor will be responsible for maintaining cleanliness and to final clean all building core areas.

F. **Base Building Subcontractors**—Contractor will be required to engage certain Base Building subcontractors for building specific work as listed in One Freedom Square Rules Rider (i.e. base building structural engineer, fire alarm contractor, etc.).

G. **Slab Penetrations**—All through slab penetrations must be temporarily fire-stopped to meet slab ratings during construction and permanently fire-proofed upon completion. **This is a post-tensioned concrete structure**, which means all slab locations requiring core drilling or power-driven penetrations greater than ½" in length must be X-rayed. All results must be reviewed and approved by the base building structural engineer prior to any core drill work occurring. Contractor to hold contract with Structural Engineer. Contractor to coordinate with Structural Engineer and include cost of scans and coring in bid.

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SCHEDULE IV
TERRACE DOOR OPTIONS

EXHIBIT C

RULES AND REGULATIONS

The following rules and regulations have been formulated for the safety and well being of all tenants of the Building and to insure compliance with municipal and other requirements. Strict adherence to these rules and regulations is necessary to guarantee that each and every tenant will enjoy a safe and undisturbed occupancy of its premises in the Building. Any continuing violation of these rules and regulations by Tenant shall constitute a default by Tenant under the Lease (subject to the notice and cure period set forth in Section 19.1(b) of the Lease).

Landlord may, upon request of any tenant, waive the compliance by such tenant of any of the following rules and regulations in any particular instance, provided that (i) no waiver shall be effective unless signed by Landlord, or its authorized agent, (ii) any such waiver shall not relieve such tenant from the obligation of complying with such rule or regulation in the future unless otherwise agreed to by Landlord, (iii) no waiver granted to any tenant shall relieve any other tenant from the obligation of complying with these rules and regulations, unless such other tenant has received a similar written waiver from Landlord, and (iv) any such waiver by Landlord shall not relieve Tenant from any liability to Landlord for any loss or damage occasioned as a result of Tenant's failure to comply with any rule or regulation.

1. The sidewalks, entrances, passages, courts, elevators, vestibules, stairways, corridors, halls, and other parts of the Building not exclusively occupied by any tenant shall not be obstructed or encumbered by any tenant or used for any purpose other than ingress and egress to and from each tenant's premises. If a tenant's premises are situated on the ground floor of the Building, the tenant thereof shall, at such tenant's own expense, keep the sidewalks and curb directly in front of its premises clean and free from ice and snow. Landlord shall have the right to control and operate the public portions of the Building, and the facilities furnished for common use of the tenants, in such manner as Landlord deems best for the benefit of the tenants generally. No tenant shall permit the visit to its premises of persons in such numbers or under such conditions as to interfere with the use and enjoyment of the entrances, corridors, elevators and other public portions or facilities of the Building by other tenants.

2. No awnings or other projections shall be attached to the outside walls of the Building without the prior written consent of Landlord, which may be granted or withheld in Landlord's sole and absolute discretion. No drapes, blinds, shades or screens shall be attached to or hung in, or used in connection with, any window or door of the Premises, without the prior written consent of Landlord. All awnings, projections, curtains, blinds, shades, screens and other fixtures must be of a quality, type, design and color, and attached in the manner approved by Landlord, which may be granted or withheld in Landlord's sole and absolute discretion. Landlord will provide initial window blinds in accordance with the specifications outlined in Exhibit I

3. No showcases or other articles shall be put in front of or affixed to any part of the exterior of the Building, nor placed in the public or common area halls, corridors or vestibules without the prior written consent of Landlord, which may be granted or withheld in Landlord's sole and absolute discretion.

4. The water and wash closets and other plumbing fixtures shall not be used for any purposes other than those for which they were constructed, and no debris, rubbish, rags, or other substances shall be thrown therein.

5. There shall be no marking, painting, drilling into or defacement of the Building or any part of the Premises that is visible from public areas of the Building except as may be approved by Landlord in accordance with Article IX of the Lease. Tenants shall not construct,

maintain, use or operate within their respective premises any electrical device, wiring or apparatus in connection with a loud speaker system or other sound system, except as reasonably required as part of a communication system approved prior to the installation thereof by Landlord, which approval shall not unreasonably be withheld, conditioned or delayed. No such loud speaker or sound system shall be constructed, maintained, used or operated outside of the Premises.

6. Except as otherwise set forth in the Lease, no bicycles or vehicles and no animals, birds, fish or pets of any kind shall be brought into or kept in or about the Building or any tenant's premises, except that this rule shall not prohibit the parking of bicycles or vehicles in the garage in the Building. No cooking or heating of food (other than the use of coffee machines, microwave ovens, and chafing dishes) shall be done or permitted by any tenant on its premises. No tenant shall cause or permit any unusual or objectionable odors to be produced upon or permeate from its premises.

7. No space in the Building shall be used for the manufacture of goods for sale in the ordinary course of business, or for the sale at auction of merchandise, goods or property of any kind. Furthermore, the use of its premises by any tenant shall not be changed without the prior approval of Landlord.

8. No tenant shall unreasonably disturb or interfere with occupants of this or neighboring buildings or premises or those having business with them, whether by the use of any musical instrument, radio, talking machine, whistling, singing, or in any other way. No tenant shall throw anything out of the doors or windows or down the corridors or stairs of the Building.

9. Except as specifically set forth in Article VI of the Lease, no flammable, combustible or explosive fluid, chemical or substance shall be brought into or kept upon the premises.

10. Except as specifically set forth in Article XII of the Lease, no additional locks or bolts of any kind shall be placed upon any of the doors or windows by any tenant, nor shall any changes be made in any existing locks or the locking mechanism therein, without Landlord's approval. The doors leading to the corridors or main halls shall be kept closed during business hours except as they may be used for ingress or egress and code required egress. Each tenant shall, upon the termination of its tenancy, restore to Landlord all keys of stores, offices, storage and toilet rooms either furnished to, or otherwise procured by, such tenant, and in the event of the loss of any keys so furnished, such tenant shall pay to Landlord the replacement cost thereof. Tenant's key system shall be separate from the rest of the Building.

11. Landlord reserves the right to inspect all freight to be brought into the Building and to exclude from the Building all freight which violates any of these rules and regulations or the Lease.

12. No tenant shall pay any employees on its premises, except those actually working for such tenant at the tenant's premises.

13. Landlord reserves the right to exclude from the Building at all times any person who is not known or does not properly identify himself to the Building management or watchman on duty. Landlord may, at its option, require all persons admitted to or leaving the Building between the hours of 6:00 p.m. and 7:00 a.m., Monday through Friday, and at any hour on Saturdays, Sundays, and legal holidays, to register. Each tenant shall be responsible for all persons for whom it authorizes entry into the Building, and shall be liable to Landlord for all acts or omissions of such persons.

14. The Premises shall not, at any time, be used for lodging or sleeping or for any immoral or illegal purpose.

15. Each tenant, before closing and leaving its premises any time shall see that all lights are turned off.

16. Landlord's employees shall not perform any work or do anything outside of their regular duties, unless under special instruction from the management of the Building. The requirements of tenants will be attended to only upon application to Landlord, and any such special requirements shall be billed to Tenant (and paid when the next installment of rent is due) in accordance with the schedule of charges maintained by Landlord from time to time or at such time as is agreed upon in advance by Landlord and Tenant.

17. Canvassing, soliciting and peddling in the Building is prohibited and each tenant shall cooperate to prevent the same.

18. There shall not be used in any space or in the public halls of the Building, either by any tenant or by jobbers or others in the delivery or receipt of merchandise, any hand trucks except those equipped with rubber tires and side guards.

19. Mats, trash or other objects shall not be placed in the public corridors of the Building.

20. Landlord does not maintain suite finishes which are non-standard, such as kitchens, bathrooms, wallpaper, special lights, etc. However, should the need arise for repairs of items not maintained by Landlord, Landlord will arrange for the work to be done at Tenant's expense.

21. Drapes installed by Landlord for the use of Tenant or drapes installed by Tenant, which are visible from the exterior of the Building, must be cleaned by Tenant at least once a year, without notice, at Tenant's own expense.

22. The Building is a non-smoking facility. Landlord shall have the right from time to time in its sole discretion to establish "smoke-free" perimeters surrounding the Building entrances and exits (including the Parking Garages) within which smoking shall not be permitted.

23. All tenants are requested to follow the Building's recycling program and energy conservation recommendations.

EXHIBIT D

FORM OF DECLARATION

This Declaration made as of the ____ day of _____, 2021 is being provided pursuant to the terms and provisions of that certain Lease dated _____ ___, 2020 ("**Lease**"), between ONE FREEDOM SQUARE, L.L.C. ("**Landlord**"), and FIREEYE, INC. ("**Tenant**"). The parties to the Lease desire to confirm that the following terms which are defined in the Lease shall have the same meanings set forth below for all purposes in the Lease:

1. The Lease Commencement Date is _____, 201__.

2. The initial term of the Lease shall expire on _____, 201__.

3. The number of square feet of rentable area in the Premises is _____.

4. The annual base rent with respect to the Premises for the first Lease Year is an amount equal to _____ Dollars ($_____).

5. As of the date hereof the Lease has not been modified and is in full force and effect and there are no defaults thereunder.

6. Attached to this Declaration is evidence of payment of all insurance required pursuant to Article XIII of the Lease.

7. Tenant acknowledges that any unreserved and unapplied Improvement Allowance as of _____, 20___, shall be deemed waived and forfeited.

LANDLORD:

ONE FREEDOM SQUARE, L.L.C.,
a Delaware limited liability company

By: BOSTON PROPERTIES LIMITED PARTNERSHIP, a Delaware limited partnership, its managing member

By: BOSTON PROPERTIES, INC., a Delaware corporation

By: _____

Name: _____

Title: _____

TENANT:

FIREEYE, INC.,
a Delaware corporation

By: _____

Name: _____

Title: _____

EXHIBIT E

JANITORIAL SPECIFICATIONS

1. DAILY

a. Empty and wipe wastebaskets and ash trays. Sanitize as necessary. Replace trash can liners nightly.

b. Clean cigarette urns.

c. Sweep entire floor area, including all lobbies, emergency exists, and stairways. Damp mop or otherwise clean any floor area soiled due to spillage or other cause.

d. Maintain lobbies to high standards at all times. Glass doors to be cleaned and all metal polished as required.

e. Vacuum all carpeted areas including stairwells.

f. Buff shine all hard surface floors.

g. Elevators to be thoroughly cleaned and wiped including tracks. Only one elevator may be taken out of service at any one time.

h. Police sidewalks, driveways, loading docks and grounds around building.

i. Spot wash to remove smudges and marks from walls, doors, glass, and partitions as required.

j. Clean and polish all drinking fountains.

k. Carpet spotting throughout building to be done as necessary.

l. Dust all desk tops, table tops and incidental furniture.

m. Brush all fabric covered chairs with a lint brush.

n. Damp wipe all telephones including dials and crevices.

o. Clean and disinfect all toilet rooms and fixtures, and clean mirrors.

p. Refill paper towel, toilet paper and soap dispensing units. Empty and clean paper towel and sanitary napkin disposal receptacles.

2. WEEKLY

a. Wipe clean all interior and exterior duronotic.

b. Completely dust office with cloth, including tops of files, ledges, window sills, baseboards, chair rails, door louvers and trim.

c. Damp wipe all desk tops, table tops and incidental furniture.

3. MONTHLY

a. Damp mop and buff all hard surface floors including telephone and electrical closets.
b. Strip, wax and polish floor areas receiving considerable traffic, such as aisles, coffee rooms, cafeterias, and reception areas.
c. Machine scrub toilet room floors and completely disinfect all room surfaces.
d. Dust all pictures, frames, charts, registered, molding, ledges, grills, exteriors of lighting fixtures, etc.
e. Wash all stairwell landings and treads.
f. Wash all interior glass walls and glass partitions.

4. QUARTERLY

a. Wash all wastebaskets.
b. Strip and refinish all hard surfaces floors not covered monthly.
c. Wipe down all walls.
d. Dust venetian blinds and window frames.
e. Thoroughly clean all elevator light fixtures and ledges.
f. Vacuum and dust all books in place.
g. Vacuum all upholstered furniture including each cushion.

5. SEMIANNUALLY

a. Vacuum and clean all air conditioning grills and wash as necessary.
b. Wipe down all exposed piping in stairwells and common areas.

6. ANNUALLY

a. Wash interior and lenses and all light fixtures.
b. Clean all vertical surfaces not provided for above.
c. Damp wash all venetian blinds.

The foregoing janitorial specifications are subject to adjustment from time to time if, in Landlord's good faith judgment, modifications thereto would improve the delivery of such services to the Building.

EXHIBIT F

FORM OF ACCEPTABLE LETTER OF CREDIT

Irrevocable Letter of Credit No.: _____

_____, 201__

ONE FREEDOM SQUARE, L.L.C.
c/o Boston Properties
2200 Pennsylvania Avenue NW
Suite 200W
Washington, DC 20037
Attn: Regional Counsel

Account Party: _____

Beneficiary: ONE FREEDOM SQUARE, L.L.C., its transferees

Amount: $_____ U.S. Dollars

Expiration Date: _____ ___, 20___

Ladies and Gentlemen:

We hereby issue this irrevocable, unconditional letter of credit number _____ ("**Credit**") in your favor, payable in immediately available funds in one or more draws of any sum or sums not exceeding in the aggregate _____ dollars ($_____), by your draft(s) at sight presented at _____, substantially in the form of the draft attached hereto as Attachment 1 and incorporated herein by this reference.

Presentation of drawing(s) may be made by facsimile to our facsimile number (___) ___ -____ under telephonic advice to our standby letter of credit department at (___) ___ -____. In such case, presentation of original document is not required.

This Credit shall be automatically renewed from year to year commencing on the first anniversary of the date hereof unless we shall give thirty (30) days' prior written notice to Beneficiary, by certified mail, return receipt requested, at the address set forth above or at such other address as provided in writing by Beneficiary, of our intent not to renew this Credit at the expiration of such thirty (30) day period. During such thirty (30) day period, this Letter of Credit shall remain in full force and effect and Beneficiary may draw up to the full amount hereof in accordance with the terms hereof.

We will accept any and all such representatives as authorized and any and all statements delivered hereunder as conclusive, binding and correct without having to investigate or having to be responsible for the accuracy, truthfulness, correctness, or validity thereof, and notwithstanding the claim in any person to the contrary.

Drafts presented under this Credit shall specify the number of this Credit as set forth above and shall be presented on or before the Expiration Date hereof (as it may have been extended from time to time).

This Credit is assignable and transferable and may be transferred one or more times, without charge to Beneficiary, upon our receipt of your written notice that an agreement has been executed to transfer or assign this Credit.

We hereby engage with you that drafts drawn under and in compliance with the terms of this Credit will be duly honored upon presentation to us.

This Credit sets forth in full the terms of our undertaking and such undertaking shall not in any way be modified, amended, amplified or limited by reference to any document, instrument or agreement referred to herein, or by any document, instrument, or agreement in which this Credit is referred to, or to which this Credit relates, and any such reference shall not be deemed to incorporate herein by reference any such document, instrument or agreement.

Except as otherwise expressly stated herein, this Credit is subject to the International Standby Practices ISP98 (International Chamber of Commerce Publication No. 590) and, to the extent not inconsistent therewith, the laws of the Commonwealth of Virginia, including without limitation, the Uniform Commercial Code in effect therein.

[BANK]

By: _____
Authorized Officer

ATTACHMENT 1
FORM OF DRAFT

DRAFT

$_____ _____
[Place, Date]

At Sight
Pay to the Order of _____
[Name of Beneficiary]

_____
[Dollar Amount of Draw]

Drawn under _____ Letter of Credit No. _____
[Issuing Bank]

For value received and charge same to account of:

_____
[Applicant/Account Party]

The undersigned Beneficiary hereby certifies that it is entitled to draw the amount drawn hereunder pursuant to the terms of that certain Lease dated _____, between the referenced Account Party, as tenant, and the undersigned Beneficiary, as landlord.

_____
[Beneficiary]

EXHIBIT G

CURRENT LIST OF ADDITIONAL INSUREDS

One Freedom Square, L.L.C., a Delaware limited liability company
Boston Properties Limited Partnership, a Delaware limited partnership
Boston Properties, Inc., a Delaware corporation
BP Management, L.P., a Delaware limited partnership

EXHIBIT H

ACCEPTABLE FORMS OF CERTIFICATES OF INSURANCE

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
—	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
109722-BLNK-GL-13-15	INSURER A :	
INSURED SAMPLE	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$
	☐ POLICY ☐ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG	$
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	X ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ☐ NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						☐ PER STATUTE ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [N]	N/A					E.L. EACH ACCIDENT	$
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION
	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE of Marsh USA Inc.

ACORD

EVIDENCE OF PROPERTY INSURANCE

DATE (MM/DD/YYYY)

THIS EVIDENCE OF PROPERTY INSURANCE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE ADDITIONAL INTEREST NAMED BELOW. THIS EVIDENCE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS EVIDENCE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE ADDITIONAL INTEREST.

AGENCY	PHONE (A/C, No, Ext):	COMPANY
FAX (A/C, No):	E-MAIL ADDRESS:	
CODE:	SUB CODE:	
AGENCY CUSTOMER ID #:		
INSURED		LOAN NUMBER / POLICY NUMBER
		EFFECTIVE DATE / EXPIRATION DATE / CONTINUED UNTIL TERMINATED IF CHECKED
		THIS REPLACES PRIOR EVIDENCE DATED:

PROPERTY INFORMATION

LOCATION/DESCRIPTION:

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS EVIDENCE OF PROPERTY INSURANCE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

COVERAGE INFORMATION

COVERAGE / PERILS / FORMS	AMOUNT OF INSURANCE	DEDUCTIBLE

REMARKS (Including Special Conditions)

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

ADDITIONAL INTEREST

NAME AND ADDRESS	MORTGAGEE / LOSS PAYEE	ADDITIONAL INSURED
	LOAN #	
	AUTHORIZED REPRESENTATIVE	

ACORD 27 (2009/12)

EXHIBIT I

CERTAIN BUILDING SPECIFICATIONS

HVAC
Series fan powered terminal boxes with heat serve the perimeter spaces. Fan powered VAV boxes without heat serve interior spaces.

Design Conditions:

Summer Indoor Conditions: 75F Dry Bulb, +/- 2F
Winter Indoor Conditions: 70F Dry Bulb +/- 2F

Interior Lighting HVAC Load: 1 Watt/SF
Interior Equipment HVAC Load: 2.5 Watts/SF
Occupancy: 1 Person/150 rsf

Energy Management
Remotely monitored building management system (BMS). All VAV boxes to be building standard and connected to building BMS. Tenant supplementary cooling will be sub-metered with Landlord specific meter and connected to Landlord's network. Tenant's supplemental equipment shall have standalone controls installed by Tenant.

Electrical Systems
5.5 watts per square foot (1.5 watts/SF for lighting and 4 watts/SF for tenant 120/208 volt power) for tenant use.

Window Blinds
1 Inch slat horizontal louver blinds in good working order installed and operational.

EXHIBIT J

TOP OF BUILDING SIGN LOCATION

EXHIBIT J-1
ALTERNATE FAÇADE LOCATION

DECLARATION OF LEASE COMMENCEMENT

This Declaration made as of the 16th day of November, 2021 is being provided pursuant to the terms and provisions of that certain Lease dated December 4, 2020 ("**Lease**"), between ONE FREEDOM SQUARE, L.L.C., a Delaware limited liability company ("**Landlord**"), and MANDIANT, INC., a Delaware corporation (f/k/a FIREEYE, INC.) ("**Tenant**"). The parties to the Lease desire to confirm that the following terms which are defined in the Lease shall have the same meanings set forth below for all purposes in the Lease:

1. The Lease Commencement Date is July 5, 2021.

2. The initial term of the Lease shall expire on April 30, 2032.

3. The number of square feet of rentable area in the Premises is 46,646.

4. The annual base rent with respect to the Premises for the first Lease Year is an amount equal to Two Million Two Hundred Thirty-Nine Thousand Eight and 00/100 Dollars ($2,239,008.00), subject to an abatement of annual base rent for the Premises for the first nine (9) full months of the Lease Term in accordance with Section 3.1(b) of the Lease.

5. As of the date hereof the Lease has not been modified and is in full force and effect and there are no defaults thereunder.

6. Tenant acknowledges that any unreserved and unapplied Improvement Allowance as of July 5, 2023, shall be deemed waived and forfeited.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK.
SIGNATURE PAGE FOLLOWS.]

LANDLORD:

ONE FREEDOM SQUARE, L.L.C., a Delaware limited liability company

By: BOSTON PROPERTIES LIMITED PARTNERSHIP, a Delaware limited partnership, its managing member

By: BOSTON PROPERTIES, INC., a Delaware corporation, its general partner

By: /s/ John J. Stroman
Name: John J. Stroman
Title: SVP, Co-Head of the Washington, DC Region

TENANT:

MANDIANT, INC., a Delaware corporation

By: /s/ Frank Verdecanna
Name: Frank Verdecanna
Title: Chief Financial Officer

Exhibit 21.1

LIST OF SUBSIDIARIES OF THE REGISTRANT

Name of Subsidiary	State or Other Jurisdiction of Incorporation or Organization
FireEye Software (Shanghai) Company Limited	China
Intrigue, LLC	Delaware
iSIGHT Partners Europe Holdings B.V.	Netherlands
iSIGHT Partners Ukraine LLC	Ukraine
iSIGHT Risk Management Private Limited	India
iSIGHT Security, LLC	Delaware
Mandiant, LLC	Delaware
Mandiant Australia Pty Ltd	Australia
Mandiant Arabia for Cyber Security	Kingdom of Saudi Arabia
Mandiant Canada Limited	British Columbia
Mandiant Cybersecurity Mexico S.A. de C.V.	Mexico
Mandiant Cybersecurity Private Limited	India
Mandiant Deutschland GmbH	Germany
Mandiant Hong Kong Limited	Hong Kong
Mandiant International, LLC	Delaware
Mandiant Ireland Limited	Ireland
Mandiant Israel Ltd	Israel
Mandiant Italy SrL	Italy
Mandiant K.K.	Japan
Mandiant Korea Limited	Republic of Korea

Mandiant Netherlands B.V.	Netherlands
Mandiant Philippines Corporation	Philippines
Mandiant Singapore Private Limited	Singapore
Mandiant Spain, S.L.	Spain
Mandiant Sweden Aktiebolag	Sweden
Mandiant Taiwan Ltd.	Taiwan
Mandiant Technologies Malaysia SDN BHD	Malaysia
Mandiant UK Ltd.	United Kingdom
Respond Software, LLC	Delaware

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-253649 on Form S-3 and Registration Statement Nos. 333-253624, 333-252304, 333-236567, 333-232226, 333-229852, 333-223197, 333-216235, 333-209771, 333-202445, 333-196490, 333-193716 and 333-191299 on Form S-8 of our reports dated March 1, 2022, relating to the consolidated financial statements and financial statement schedule of Mandiant, Inc. (formerly FireEye, Inc.) and subsidiaries (the "Company"), and the effectiveness of the Company's internal control over financial reporting, appearing in this Annual Report on Form 10-K of the Company for the year ended December 31, 2021.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
March 1, 2022

Exhibit 31.1

CERTIFICATION

I, Kevin R. Mandia, certify that:

1. I have reviewed this Annual Report on Form 10-K of Mandiant, 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: March 1, 2022

/s/ Kevin R. Mandia

Kevin R. Mandia
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION

I, Frank E. Verdecanna, certify that:

1. I have reviewed this Annual Report on Form 10-K of Mandiant, 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: March 1, 2022

/s/ Frank E. Verdecanna

Frank E. Verdecanna

Executive Vice President and Chief Financial Officer

(Principal Financial Officer)

Exhibit 32.1

SECTION 1350 CERTIFICATIONS

I, Kevin R. Mandia, certify to the best of my knowledge, pursuant to 18 U.S.C. Section 1350, that the Annual Report of Mandiant, Inc. on Form 10-K for the fiscal year ended December 31, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Mandiant, Inc.

Date: March 1, 2022

/s/ Kevin R. Mandia

Kevin R. Mandia
Chief Executive Officer
(Principal Executive Officer)

I, Frank E. Verdecanna, certify to the best of my knowledge, pursuant to 18 U.S.C. Section 1350, that the Annual Report of Mandiant, Inc. on Form 10-K for the fiscal year ended December 31, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Mandiant, Inc.

Date: March 1, 2022

/s/ Frank E. Verdecanna

Frank E. Verdecanna
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)