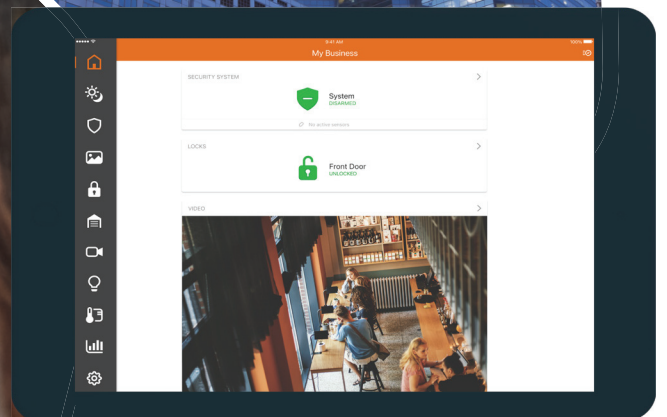


2021 Annual Report

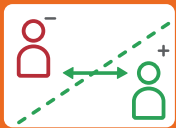


Innovation Spotlight

Business Activity Analytics

Alarm.com's powerful new commercial video analytics service intelligently monitors customer and employee activity and captures business performance and operational data.

Real-time notifications and robust enterprise business intelligence reporting help commercial subscribers optimize business operations, streamline customer flows, reduce wait times, and enforce occupancy and social distancing limits.



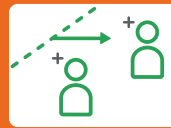
OCCUPANCY
TRACKING



QUEUE
MONITORING



HEAT
MAPPING



PEOPLE
COUNTING



CROWD
GATHERING

ALARM.COM

now

Waiting Area issued a Crowd Monitoring Alert (6 people crowded) at 2:27 pm.



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: 001-37461



Delaware

(State or other jurisdiction
of incorporation or organization)

26-4247032

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

8281 Greensboro Drive Suite 100 Tysons Virginia

22102

(Address of principal executive offices)

(Zip Code)

Tel: (877) 389-4033

(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, \$0.01 par value per share	ALRM	The Nasdaq Stock Market LLC

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	<input checked="" type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>
Non-Accelerated Filer	<input type="checkbox"/>	Smaller Reporting Company	<input type="checkbox"/>
		Emerging Growth Company	<input type="checkbox"/>

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2021 was \$2.4 billion, based on a closing price of \$84.70 per share of the registrant's common stock as reported on The Nasdaq Global Select Market. For purposes of this computation, all officers, directors, and 10% beneficial owners of the registrant are deemed to be affiliates. Such determination should not be deemed to be an admission that such officers, directors or 10% beneficial owners are, in fact, affiliates of the registrant.

As of February 17, 2022, there were 50,318,870 outstanding shares of the registrant's common stock, \$0.01 par value per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the registrant's 2022 Annual Meeting of Stockholders, which will be filed subsequent to the date hereof, are incorporated by reference into Part III of this Form 10-K. Such proxy statement will be filed with the Securities and Exchange Commission not later than 120 days following the end of the registrant's fiscal year ended December 31, 2021.

ALARM.COM HOLDINGS, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2021

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, or this Annual Report, contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that reflect our current expectations regarding future events, our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management. The forward-looking statements are contained principally in Part I, Item 1. "Business," Part I, Item 1A. "Risk Factors," and Part II, Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations," but are also contained elsewhere in this Annual Report. Forward-looking statements include any statement that does not directly relate to a current or historical fact. In some cases, you can identify forward-looking statements by the words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "objective," "ongoing," "plan," "predict," "project," "potential," "should," "will," "would," or the negative or plural of these words or other comparable terminology intended to identify statements about the future. The events described in these forward-looking statements are subject to a number of risks, uncertainties, assumptions and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by the forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on a combination of facts and factors currently known to us and our expectations of the future, about which we cannot be certain. Forward-looking statements include statements about:

- the anticipated impact of the global economic uncertainty and financial market conditions caused by the COVID-19 pandemic on our business, results of operations and financial condition, including on our hardware sales and our SaaS and license revenue growth rate and our ability to manage inventory and supply chain challenges;
- our ability to continue to increase revenue, maintain existing subscribers and sell new services to new and existing subscribers;
- our ability to add new service provider partners, maintain existing service provider partner relationships and increase the productivity of our service provider partners;
- the potential impact of trade policies and related tariffs on our cost of hardware revenue and hardware revenue margins;
- the effects of increased competition as well as innovations by new and existing competitors in our market;
- our ability to adapt to technological change and effectively enhance, innovate and scale our solution;
- our ability to effectively manage or sustain our growth;
- our expected uses for the proceeds from the offering of our convertible senior notes;
- potential acquisitions and integration of complementary business and technologies;
- our ability to maintain, or strengthen awareness of, our brand;
- perceived or actual security, integrity, reliability, quality or compatibility problems with our solutions, including related to security breaches in our systems, our subscribers' systems, unscheduled downtime, or outages;
- our future revenue, hiring plans, expenses, capital expenditures, capital requirements and stock performance;
- our ability to attract and retain qualified employees and key personnel and further expand our overall headcount;
- our ability to develop relationships with service provider partners in order to expand internationally;
- our ability to stay abreast of new or modified laws and regulations that currently apply or become applicable to our business both in the United States and internationally;
- our ability to maintain, protect and enhance our intellectual property;
- costs associated with defending intellectual property infringement and other claims; and
- other risks detailed below in Item 1A. "Risk Factors."

You should refer to the "Summary of Risks Affecting Our Business" below and Item 1A. "Risk Factors" section of this Annual Report for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this Annual Report will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Annual Report.

Except as otherwise indicated herein or as the context otherwise requires, references in this Annual Report to "Alarm.com," the "company," "we," "us," "our" and similar references refer to Alarm.com Holdings, Inc. and, where appropriate, our consolidated subsidiaries.

Summary of Risks Affecting Our Business

The following summary highlights some of the risks you should consider with respect to our business and prospects. This summary is not complete and the risks included in the summary below are not the only risks we face. You should review and consider carefully the risks and uncertainties described in the "Risk Factors" section of this Annual Report on Form 10-K, which includes a more complete discussion of the risks summarized below as well as a discussion of other risks related to our business and an investment in our common stock, as well as our other public filings with the Securities and Exchange Commission, or SEC.

Any of the following risks could have a material adverse effect on our business, financial condition, results of operations and prospects and cause the trading price of our common stock to decline:

- Our quarterly results of operations have fluctuated and are likely to continue to fluctuate and may be negatively affected by the COVID-19 pandemic, the precautions we have taken in response to the pandemic, the disruption to global supply chains and any negative general economic conditions.
- Our actual operating results may differ significantly from any guidance provided. If our actual results of operations fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially.
- We may not sustain our growth rate and we may not be able to manage any future growth effectively.
- We sell security and life safety solutions and if these solutions fail for any reason, we could be subject to liability and our business, reputation and results of operations could suffer.
- Failure to maintain the security of our information and technology networks, including information relating to our service provider partners, subscribers and employees, could expose us to liability and adversely affect us.
- The markets in which we participate are highly competitive and many companies, including large technology companies, broadband and security service providers and other managed service providers, are actively targeting the home automation, security monitoring, video monitoring and energy management markets.
- We rely on our service provider network to acquire additional subscribers, and the inability of our service providers to attract additional subscribers or retain their current subscribers could adversely affect our operating results.
- We receive a substantial portion of our revenue from a limited number of service provider partners, and the loss of, or a significant reduction in, orders from one or more of our major service provider partners would result in decreased revenue and profitability.
- We have relatively limited visibility regarding the consumers that ultimately purchase our solutions, and we often rely on information from third-party service providers to help us manage our business. We operate in an evolving connected home market. If the connected property market does not grow as we expect or if a significant number of our target consumers choose to adopt point products that control discrete functions rather than our connected property solutions, we may not be able to achieve sustained growth or our business may decline.
- We benefit from integration of our solutions with third-party platform providers. If developers of third-party platform providers choose not to partner with us, or are acquired by our competitors, our integrated solutions platform, business and results of operations may be harmed.
- Our strategy includes pursuing acquisitions, and our potential inability to successfully consummate acquisitions or integrate newly-acquired technologies, assets or businesses may harm our financial results.
- If we are unable to adapt to technological change, including maintaining compatibility with a wide range of devices, as well as changes in access to wireless networks through which we provide our wireless alarm, notification and intelligent automation services, our ability to remain competitive could be impaired and we may need to incur significant capital expenditures to update our technology.
- We operate in a regulated industry and our business, operations and service provider partners are subject to various foreign, U.S. federal, state and local laws and regulations, including relating to consumer protection, licensing, Internet and data privacy, tax, tariff, import/export restrictions or other trade barriers. Failure to comply with applicable laws and regulations could harm our business and we may incur significant expenditures related to compliance efforts.
- We are involved from time to time in legal proceedings where a negative outcome could result in a material adverse effect on our business, financial condition, cash flows and results of operations.
- An assertion by a third party that we are infringing its intellectual property could subject us to costly and time-consuming litigation or expensive licenses that could harm our business and results of operations.
- We depend on our suppliers. The loss of any key supplier or the inability of a key supplier to deliver their products to us on time or at the contracted price would materially and adversely affect our business, financial condition, cash flows and results of operations.

PART I.

ITEM 1. BUSINESS

Overview

Alarm.com is the leading platform for the intelligently connected property. We offer a comprehensive suite of cloud-based solutions for smart residential and commercial properties, including interactive security, video monitoring, intelligent automation, access control, energy management and wellness solutions. Millions of property owners depend on our technology to intelligently secure, automate and manage their residential and commercial properties. In the last year alone, our platforms processed more than 200 billion data points generated by over 100 million connected devices. We believe that this scale of subscribers, connected devices and data operations makes us the leader in the connected property market.

Our solutions are delivered through an established network of over 10,900 trusted service providers, who are experts at selling, installing and supporting our solutions. We primarily generate Software-as-a-Service, or SaaS, and license revenue through our service provider partners, who resell these services and pay us monthly fees. We also generate hardware and other revenue, primarily from our service provider partners and distributors. Our hardware sales include connected devices that enable our services, such as video cameras, video recorders, gunshot detection sensors, gateway modules and smart thermostats.

Contracts with our service provider partners establish pricing for access to our platform solutions and for the sale of hardware. These service provider contracts typically have an initial term of one year, with subsequent renewal terms of one year. Our service provider partners typically enter into contracts with our subscribers, which our service provider partners have indicated range from three to five years in length. Our service provider partners are free to market and sell our products under their own guidelines at prices to the consumer that they establish independently. We believe that our network of service providers and the length of our service relationships with residential and commercial property owners, combined with our robust SaaS platforms and over 20 years of operating experience, contribute to a compelling business model.

We have experienced significant growth since our company's inception in 2000. We generated total revenue of \$749.0 million, \$618.0 million and \$502.4 million in 2021, 2020 and 2019, respectively. Our SaaS and license revenue was \$460.4 million, \$393.3 million and \$337.4 million in 2021, 2020 and 2019, respectively, representing a compound annual growth rate of 16.8%. We also generated net income attributable to common stockholders of \$52.3 million, \$77.9 million and \$53.5 million in 2021, 2020 and 2019, respectively, as well as Adjusted EBITDA, a non-GAAP metric, of \$142.5 million, \$125.3 million and \$108.3 million in 2021, 2020 and 2019, respectively. See the "Non-GAAP Measures" section of Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" for a discussion of the limitations of Adjusted EBITDA and a reconciliation of Adjusted EBITDA to net income, the most directly comparable financial measures calculated and presented in accordance with accounting principles generally accepted in the United States, or GAAP, for the years ended December 31, 2021, 2020 and 2019.

Our Solutions and Integrated Platforms

Our solutions are designed to make both residential and commercial properties safer, smarter and more efficient. Our technology platforms support all participants in what we refer to as the connected property market. This market includes the residential and commercial property owners who subscribe to our services, the hardware partners who manufacture devices that integrate with our platforms and the service provider partners who install and maintain our solutions.

The Alarm.com platform enables our service provider partners to deploy our interactive security, video monitoring, intelligent automation, access control, energy management and wellness solutions as stand-alone offerings or as combined solutions to address the needs of a broad range of customers.

Subscriber Solutions

Interactive Security

Interactive security is the entry point for most of our smart home and business subscribers. Our dedicated, two-way cellular connection between the property and our platforms is designed to be tamper resistant and to meet the high reliability standards for life safety services. Our platform integrates with monitoring stations used by our service providers to monitor the system 24 hours a day, seven days a week, and coordinate emergency response as needed. Subscribers can seamlessly connect to our services to control and monitor their security systems, as well as to Internet of Things, or IoT, devices including door locks, garage doors, thermostats and video cameras, through our family of mobile apps, websites and engagement platforms like voice control through Siri Shortcuts, Amazon Echo and Google Home, wearable devices like the Apple Watch and TV applications such as Apple TV and Amazon Fire TV.

The capabilities associated with this solution include:

- *Real-Time Alerts and Always-On Monitoring.* Whether the security system is armed or disarmed, we continuously monitor sensors in the property and can keep subscribers aware of system events in all kinds of situations. Notifications for any type of system event are delivered through push notifications, short message service, or SMS, or email, based on the subscriber's preference. Our proprietary algorithms help safeguard connected properties by continuously monitoring devices and sensors and learning the unique activity patterns in a property. When unexpected activity is detected, the subscriber is automatically notified. Facial recognition technology enhances unexpected activity alerts by enabling certain security panels with built-in cameras to proactively monitor for unauthorized sharing or theft of an authorized user's security system codes.
- *Alarm Transmission.* We transmit alarm signals from monitored properties through our cloud platforms to approximately 1,000 third-party central monitoring stations staffed 24 hours a day, seven days a week with live operators ready to initiate emergency response.
- *Smart Signal.* With a single button push in the Alarm.com mobile app, subscribers can quickly verify an alarm to help expedite emergency response or easily cancel a false alarm. By communicating critical information directly to the monitoring station, Smart Signal can help enhance the overall value of the professional monitoring services associated with Alarm.com systems and reduce false alarm dispatches. In addition, home or business owners who need emergency assistance at their property can send a one-touch panic signal directly from their mobile app to their monitoring station.
- *Flex IO.* Flex IO is a versatile, completely wireless device that extends awareness across a property and to assets in any location. The battery-powered LTE Category M device creates new applications of our technology that existing hub-connected sensors cannot address. Flex IO can be installed easily on a backyard gate, detached garage, remote storage unit, or it can be tethered to other assets like a boat, tractor or lawn mower. Flex IO triggers activity notifications to subscribers as well as video recordings when activity is detected, or an asset is moved.
- *Connected Car.* Our battery-powered, cellular Connected Car solution extends smart security beyond the home, enabling subscribers to track their vehicle's location, view engine status and analyze fuel efficiency from the Alarm.com mobile app. Subscribers enjoy peace of mind with real-time driver safety alerts, diagnostic alerts and unexpected activity alerts. Fully integrated with the Alarm.com platform, Connected Car provides smarter, more responsive alerts and more intelligent automation than standalone solutions.
- *Wellness.* Our technology intelligently monitors quality of life through a suite of connected sensors and devices, and delivers proactive insights into activities of daily living. With alerts about changes in behavior that can indicate emerging quality of life issues, family members and homecare and senior living providers can address issues before they escalate and deliver more efficient care.

Video Monitoring and Video Analytics

Our video monitoring solution can provide a direct live-view into a property, identify and capture footage of critical events and provide visual peace of mind. We offer indoor and outdoor video cameras for residential and commercial properties at varying price points so that our service providers can engage a range of consumers with our services. We also provide a doorbell video camera solution that supports two-way audio with guests at the door, as well as video management software and cameras for enterprise commercial applications through our OpenEye business.

The capabilities associated with our video monitoring solution include:

- *Video Analytics.* Our video analytics engine provides object classification and object tracking technology that can distinguish between people, vehicles and animals, determine an object's direction of movement and measure the duration of activity. Subscribers can selectively control and manage notifications and assign virtual zones and multi-directional "tripwires" so they can monitor their home or business for highly specific activity. Perimeter Guard is the latest enhancement to our video analytics capabilities and can proactively identify and engage would-be intruders before they can threaten physical property.
- *Video Doorbell.* Alarm.com offers a full line of video doorbell options with a diversity of price points. From a single screen on the Alarm.com mobile app, subscribers can see and speak with visitors and control their door locks. The Alarm.com 770 video doorbell operates proprietary video analytics software that can quickly and accurately detect visitors while reducing unwanted alerts, such as those caused by passing vehicle traffic or swaying branches. A touch-free capability immediately activates the doorbell chime when a visitor is detected, eliminating the need to physically press a doorbell button.

- *Intelligent Integration.* Alarm.com's video surveillance solution works intelligently with other devices and sensors in the property. Subscribers can create intelligent rules to capture video clips of important events to enhance security and privacy.
- *Live Streaming.* Subscribers can securely access live video feeds through the web and mobile apps at any time.
- *Secure Cloud Storage.* Video clips are uploaded to our cloud-based storage system for secure storage and remote viewing.
- *Video Alerts.* Smart clips can be automatically sent via SMS, push notifications or email as soon as they are recorded.

Intelligent Automation and Energy Management

Our solution provides enhanced monitoring and control for a large ecosystem of connected devices, including thermostats, lights, locks, power meters, shades and other devices. Increasing awareness of energy usage and providing intelligent control over connected devices enables subscribers to create personalized automation rules and schedules. We believe our solutions can reduce energy waste as well as increase comfort and convenience for our subscribers. The capabilities associated with this solution include:

- *Scenes.* A customizable scenes button in the Alarm.com app can adjust multiple devices in the property with a single command. For example, a homeowner leaving the house can arm the security system, lock the front door, close the garage door and adjust the thermostat with a single command.
- *Video Analytics Triggers.* A robust set of automation rules allows our subscribers to customize automations to respond when certain activity is detected by their video monitoring solution. For example, subscribers can create a rule that if a person is detected in their backyard at night, certain lights should turn on.
- *Smart Thermostat Schedules.* Advanced algorithms can learn the unique activity patterns in a property by analyzing sensor and device data. Our solution can then recommend thermostat schedules that have the potential to increase energy efficiency when the property is not likely to be occupied.
- *Responsive Savings.* Smart thermostats connected to our platforms can automatically respond to sensors and other devices in the property to conserve energy. For example, when the security system is armed away, an arming state used when the property is not occupied, the thermostat can automatically adjust to save energy. Additionally, if a window is open for a period of time, the smart thermostat can adjust to an efficiency setting and alert the property owners.
- *Precision Comfort.* Remote temperature sensors enable a subscriber to manage comfort in a specific area within their property. For example, a homeowner can set a desired temperature for a child's nursery to improve the child's comfort. Subscribers can easily customize detailed schedules and rules to have the right temperature in the right location at the right time.
- *Energy Usage Monitoring.* Real-time and historical energy usage and solar energy production data for the entire property and individual devices can give subscribers greater insight into the property's energy profile and encourage more efficient use of energy-consuming devices.
- *HVAC Monitoring Service.* Our Heating, Ventilation and Air Conditioning, or HVAC, monitoring service works with select high-efficiency heating and cooling systems and allows HVAC contractors to remotely monitor and manage sophisticated residential and light commercial heating and cooling systems.
- *Places Feature.* The Places feature uses a phone's geo-location to determine when to notify a subscriber of specific system conditions, or to automatically adjust system settings. Subscribers who enable the Places feature can be notified if they leave home and forgot to lock a door, close the garage door, arm their security system or close a window. Additionally, smart thermostats and lights can be automatically adjusted based on the subscriber's location. Subscribers can create multiple geo-fences and customize the opt-in feature to meet their specific needs.
- *Demand Response Programs.* Utilities can reduce or shift power consumption during peak demand periods by accessing connected thermostats and other connected devices and appliances that participate in the utility's program. Managed at scale, these voluntary programs can significantly reduce costs for utilities. In addition to enabling subscribers to participate in these programs through our energy management solution, our EnergyHub subsidiary aggregates a diverse set of smart thermostats, connected water heaters, batteries and electric vehicles, enabling utilities to leverage these devices as an enterprise-grade, grid resource through EnergyHub's SaaS platform.

- *Whole Home Water Safety Solution.* Our comprehensive whole home water safety solution helps subscribers conserve water and protects properties from a full range of water-related damage. Integrated with Alarm.com's Smart Water Valve + Meter, our solution can monitor water usage, detect both low- and high-volume leaks and automatically shut off the property's water supply. Working with other connected devices in the Alarm.com ecosystem, our solution can also alert the homeowner about conditions that can lead to frozen and burst pipes, intelligently manage humidity levels and notify homeowners if a sump pump fails.

Commercial Solutions

In addition to our residential solutions, we offer a full range of commercial security services that uniquely address the requirements of small, medium and enterprise scale businesses.

Alarm.com for Business, our security solution for small and medium businesses that range from single-site to multi-location businesses, combines intelligent intrusion detection, video surveillance, access control and energy management into a single solution through Alarm.com's app and online interfaces. Our solution streamlines business operations, enhances property security and awareness, saves energy and provides insights into employee and customer activity. Additionally, business insights reporting provides actionable intelligence, including open and close trends by location, peak periods of activity and customer traffic and energy savings opportunities. Key benefits of the commercial offering include:

- *Commercial Grade Video Solutions.* Connected commercial cameras deeply integrate with the security and access control systems, capturing clips as activity occurs, which are uploaded to our cloud-based platform for secure storage and remote viewing through the web or our mobile app. Subscribers can receive real-time alerts and video clips if the alarm goes off, a door is unlocked, or unexpected activity occurs outside of normal business hours. Business owners can assess the situation and take appropriate action at any time of day and from any location.
- *Commercial Video Analytics.* Business Activity Analytics can help improve and optimize business operations. Commercial subscribers can intelligently monitor customer and employee activity, including occupancy tracking, people counting, queue monitoring, crowd gathering and heat mapping. Real-time notifications and activity reporting can help streamline customer flows, reduce wait times, measure the effectiveness of marketing campaigns and enforce occupancy and social distancing limits.
- *Smarter Access Control.* Our Smarter Access Control solution streamlines access management and helps solve many of the challenges faced by small business owners with an array of always-on operational tools that can improve property control, security and awareness. From a single web view, subscribers can add and delete users, manage access points and user permissions and define schedules across multiple locations and security partitions. Leveraging advanced algorithms, our Smarter Access Control solution intelligently learns the activity patterns of users and access points for single or multiple property installations, detects unexpected events and alerts the subscriber of the irregular activity.
- *Multi-site Management.* Commercial subscribers with multiple business locations and access points can easily manage Alarm.com's commercial solutions from a single enterprise dashboard. They can customize video feeds to monitor multiple properties and use sophisticated rules, user permissions and schedules to manage access across multiple locations and security partitions. Business owners and managers can add and delete access credentials for new and departing employees and provide limited access to third parties such as delivery personnel, without calling their service provider or worrying about spare keys.
- *Energy Savings.* Our smarter thermostats help subscribers reduce energy costs automatically, even if someone forgets to adjust the temperature when they are closing up at the end of the day, generating a return on investment.
- *Protection for Valuables and Inventory.* Quick notifications keep business owners in the know about individuals entering or exiting the back office, the supply room, or any other specific rooms or doors.
- *Temperature Monitoring.* Our new temperature monitoring solution provides monitoring 24 hours a day, seven days a week, real-time alerts and historical temperature reporting to support the temperature control needs of restaurants, grocery stores, pharmacies and other single-system and multi-location commercial customers. Business owners receive alerts for out-of-range temperatures so they can quickly prevent unsafe conditions, reduce spoilage and repair malfunctioning equipment.
- *Daily Safeguards.* Smarter business security intelligently keeps business locations secure while minimizing false alarms. Subscribers can specify a time for the security system to automatically adjust to an armed state each day. The system will arm itself only after a certain period of inactivity in the property.

- *Proactive Awareness.* Unexpected activity alerts provide business owners and managers with the early identification of activity such as unexpected entry after hours, or doors propped open that could cause energy waste or safety concerns, and help business owners quickly respond to problematic situations. Alarm.com provides a time stamped log of which users armed or disarmed the system or entered the property using their keycard.
- *Professionally Supported and Low Cost of Ownership.* Unlike traditional commercial security services, Alarm.com's connected solutions are cloud-based and do not require additional IT resources. Smarter business security powered by Alarm.com is supported by our authorized service provider partners from start to finish, with installation, configuration and technical support included.

Our OpenEye enterprise commercial video management solution complements the Alarm.com for Business platform and extends our market to address the unique requirements of large, enterprise commercial and national account customers such as universities, banks, national retail chains and property management companies. OpenEye offers Video Surveillance as a Service, or VSaaS, as well as cameras, recorders and other peripherals designed for video applications, and supports enterprise-level requirements such as advanced forensic video search, point of sale system integration and customer site mapping, as well as large-scale camera deployments. Key benefits of the OpenEye solution include:

- *Intelligent Cloud Architecture.* OpenEye's hybrid architecture intelligently combines local recording with managed cloud services. It provides long-term storage of high-resolution video, low bandwidth consumption and a full suite of centralized management capabilities that include remote viewing, administration and health reporting for deployments that can include thousands of video cameras.
- *Enterprise-Level Capabilities.* Capabilities such as advanced forensic video search, point of sale system integration and customer site mapping address the specific needs of enterprise-level subscribers and allow loss prevention officers, business analysts and other IT resources to employ video as a key operational and management tool.
- *Large-Scale Video Deployments.* Centrally managed recorder firmware, system diagnostics and configuration capabilities allow enterprise commercial customers to actively manage large-scale camera deployments. OpenEye's user interface is optimized for guard or command stations and other settings where video from multiple cameras is viewed and searched simultaneously on secure workstations or video walls.
- *CloudConnect.* CloudConnect is a two-way integration between the OpenEye Cloud Video Platform and the Alarm.com for Business platform that directly associates event data from intrusion sensors and access control readers with OpenEye's VSaaS offering. Based on criteria such as system arming status or badge scans by specific users, subscribers can customize event-based rules to record video clips, tag videos and generate alerts, or they can directly navigate to video recordings associated with a particular event. The integration further unifies intrusion, access control and video solutions to offer a more intelligent and convenient way to manage and secure commercial properties.

Shooter Detection Systems expands the platform capabilities we provide to the overall commercial security market. Our multi-sensor solution provides highly accurate indoor gunshot detection to help alert employees and the public against active shooter threats. The solution uses a dual-mode detection technology that combines acoustic sensors with specialized infrared flash detectors, in tandem with fully proprietary gunshot detection software algorithms to maximize detection without driving false positives.

Service Provider Solutions

We also offer a comprehensive suite of enterprise-grade business management solutions for our service provider partners. We are committed to helping our service provider partners grow their businesses, efficiently manage their customer bases and maximize the value of their Alarm.com accounts. We believe these services strengthen our partnerships with service providers as they build their businesses on our platforms. Capabilities associated with these solutions include:

- *Service Provider Portal.* Our permission-based online portal provides account management, sales, marketing, training and support tools. Through this portal, our service provider partners can activate and manage their Alarm.com customer accounts, order equipment, access invoices and billing, remotely program customer systems, obtain sales and marketing services and engage in training.
- *Service Dashboard.* The Partner Services Platform provides a unified interface that displays key operational and customer experience indicators, including technician performance, system reliability and customer engagement metrics. Service managers can identify opportunities for implementing efficiencies that they can then operationalize through the suite of Alarm.com's service provider solutions.

- *Installation and Support.* The ease of installation and cost of supporting connected property solutions are critical considerations for our service provider partners. We support the end-to-end process for deploying and managing our solutions with tools that make installation and support more efficient.
 - **MobileTech Application and Remote Toolkit.** Our installation and troubleshooting mobile app, designed for service provider technicians, facilitates the successful installation, programming and support of equipment while either on-site at subscribers' properties or while working remotely. Service provider technicians and customer service personnel can access a collection of remote system management tools and panel settings through the Remote Toolkit using the MobileTech application and our service provider portal, including service appointment reminders, device notes, quick links and MobileTech Podcasts. These features help to increase accuracy of installations, decrease time spent on-site and reduce support calls and return visits, which saves subscribers and service providers money while increasing subscriber satisfaction.
 - **On-Site Wrap Up.** The On-Site Wrap Up feature within the MobileTech application helps technicians keep track of and record the tasks they are required to complete during a service call to a customer property. Service providers can establish standard actions for technicians and monitor implementation. On-Site Wrap Up helps Alarm.com's service provider partners ensure that their field technicians deliver consistent, high-quality service that reduces support costs and customer attrition.
 - **On My Way.** The On My Way feature within the MobileTech application modernizes the management of service appointments and customer expectations. It uses technicians' mobile devices to provide useful navigation to service and installation appointments, sends more accurate arrival time email notifications to customers and helps service providers gauge the efficiency of their workforce.
 - **Device Sync.** Our integrations with monitoring stations allow operators to proactively address trouble conditions associated with a subscriber's video cameras and connected devices. Participating monitoring stations can receive alerts when a device malfunctions or its batteries are low, and operators can then communicate to subscribers to remotely address the issue or schedule a service appointment with a technician, if needed.
 - **Video Health Reports:** Video Health Reports give Alarm.com's service provider partners and their commercial video customers a monthly snapshot of the condition of video cameras and stream video recorders. System summaries and device-by-device information provide awareness of potential issues to ensure continuous, uninterrupted video coverage, reduce maintenance and support calls, and eliminate the need for manual checks by the customer.
 - **Smart Gateway.** The Smart Gateway allows service provider partners to create a private and secure Wi-Fi network infrastructure specifically for a subscriber's property that is dedicated to Alarm.com video cameras. It is designed to streamline camera installation and reduce common support issues caused by a subscriber's unmanaged Wi-Fi network. With Smart Gateway, Alarm.com's service provider partners can also more efficiently deploy video cameras and services with better connectivity and leverage wireless spectrum maximized for performance.
- *AI-powered Enhancements to Professional Monitoring and False Alarm Reduction.* We apply our advanced, AI architecture to provide our third-party monitoring station partners with powerful insights. We designed these capabilities to streamline their operations, empower them to provide critical information to public safety dispatchers and first responders, enhance the value of the monitoring services they provide to subscribers and reduce false alarm dispatches.
 - **Ambient Insights for Alarm Response.** Ambient Insights for Alarm Response provides third-party monitoring stations with a real-time determination as to the likelihood that the property owner will cancel an alarm. The alarm assessments are designed to help operators prioritize multiple alarm events. Monitoring stations can rapidly dispatch emergency services to the highest priority alarms, while also reducing the likelihood of false alarm dispatches.
 - **People Detection for Monitoring Stations.** Our cloud-based video analytics engine provides our monitoring station partners with video clips of people detected in a property immediately before, during and after an alarm event. Video clips are sent directly to the monitoring station operator's interface to help them expedite responses and reduce false dispatches.
- *Business Management.* Our services deeply integrate with our service provider partners' offerings and provide increased business insight into their customer base and key business health metrics.

- **Web Services.** Our web services allow our service provider partners to integrate their existing customer management software and tools with our platforms. This creates a unified interface for our service provider partners to seamlessly perform functions like creating a new customer account or upgrading a service plan.
- **Business Intelligence.** Our powerful business intelligence tools provide service providers with crucial insights into the performance of their Alarm.com subscriber account base. Business Intelligence provides key operational metrics related to account plan adoption, attrition and service quality to help service provider partners grow their business and improve customer retention.
- **Sales, Marketing & Training.** Our comprehensive customer lifecycle sales and marketing services are available to help our service provider partners effectively market and sell our solutions.
 - **Marketing Portal.** We provide a broad suite of marketing and sales tools and resources for our service provider partners, including our MobileSales app, co-brandable landing pages, mobile optimized websites with integrated lead capture, social media, videos, images, collateral, direct mail and event materials.
 - **Alarm.com Academy.** We offer comprehensive in-person training programs to our service provider partners. Additionally, we offer online courses through a learning management system, enabling our service provider partners to access training on the full suite of Alarm.com solutions anytime.
 - **Customer Connections.** We help our service provider partners maximize the value of existing accounts by offering targeted in-app messaging and e-mail communications to existing subscribers. These campaigns are designed to increase engagement, drive upsell opportunities and enable referrals for our service provider partners.
- **Home Builder Program.** Our home builder program includes hardware and service plans designed to facilitate partnerships between home builders and our service provider partners. Home builders can rapidly deploy a full-range of our smart home solutions in new communities and model homes, while minimizing risks and costs by depending on our nationwide network of service provider partners for hardware installation and ongoing support.

Benefits of Our Solutions

Residential and commercial properties are ripe for reinvention. The intersection of significant technology trends, like the broad adoption of mobile devices, the emergence of the IoT, the power of big data and the extensibility of the cloud, makes the connected property possible. Security systems, thermostats, door locks, video cameras, lights, garage doors and other devices that were once inert can now be intelligent and connected. Our intelligently connected property solutions provide a wealth of benefits to our subscribers and our service provider partners.

Benefits to Subscribers:

- **Single Connected Platform.** Our cloud-based platforms provide subscribers with a single point of integrated control across a diverse ecosystem of IoT devices. Solutions are easily personalized to suit the individual subscriber's needs.
- **Reliable Network Communications.** Our platforms utilize a highly secure, highly reliable, dedicated cellular connection which mitigates common vulnerabilities of systems that are connected via the phone line or wired networks, such as cut phone lines or broadband connectivity issues.
- **Intelligent and Actionable.** Our platforms aggregate real-time, multi-point data about property activity and system status. We have developed a highly scalable data analytics engine to deliver unique features and capabilities based on insights derived from this growing set of data. For example, learning detailed activity patterns in a property enables our platforms to proactively alert the subscriber about unexpected events. Our platforms continue to learn and adapt to become more personalized over time.
- **Broad Device Compatibility.** Our platforms support a wide variety of connected devices and communications protocols, allowing seamless integration and automation of many devices, as well as the addition of new devices in the future.
- **Accessible and Affordable.** Our platforms offer an affordable alternative to expensive automation systems, legacy residential and commercial control products and disparate point product solutions.
- **Trusted Provider.** We have established a reputation and brand as a trusted and reliable technology provider. We respect the privacy of our subscribers and do not sell their data. Our reputation is strengthened through our network of

over 10,900 service provider partners, who have significant expertise in the delivery of our SaaS platforms and suite of solutions.

Benefits to Service Provider Partners:

- **New Revenue Generation Opportunities.** Our solutions help broaden our service provider partners' offerings beyond traditional security to also include comprehensive smart residential and commercial solutions like intelligent automation, video monitoring and energy management. They can access new market opportunities and drive incremental recurring monthly revenue by expanding their offerings with our solutions. We offer training, tools and other resources to help our service provider partners fully leverage the breadth and depth of our platforms.
- **Expanded Set of Value-Added Services.** We provide value-added services to our service provider partners, including training, marketing, installation and support tools and business intelligence analytics. This support helps our service provider partners more efficiently acquire, install and support their customers on our platforms.
- **Improved Service Provider Economics.** Our cloud-based platforms can help reduce our service provider partners' service delivery and support costs. Remote Toolkit enables our service provider partners to remotely configure, support and upgrade their customers' hardware or software, eliminating the cost of an in-person service call for many routine support issues. In addition, we believe our service provider partners can generate more revenue from each subscriber by providing services beyond traditional security.
- **Broad Device Interoperability.** We have an open platform which allows service provider partners to respond to market innovation and consumer demands for connected devices. Device hardware is deeply integrated into our platforms to provide a more cohesive experience than stand-alone products deliver. For example, we released Flex IO, a versatile, completely wireless device that extends awareness across a property and to assets in any location by leveraging LTE Category M capabilities to create new applications of our technology that existing hub-connected sensors cannot address. Our platforms also support various broadly adopted communications protocols commonly used in many automation devices, including Z-Wave, Wi-Fi and cellular. Our open platforms and interoperability give our service provider partners a wide selection of devices to suit their customers' needs now and in the future.
- **Dedicated Service Provider Support.** We operate support centers focused on providing timely support to our service providers and their technicians. We are focused on ensuring our service providers receive fast and reliable service to address the broad needs of subscribers across a wide range of devices and solutions.

Competitive Advantages

We believe the benefits we can deliver to our subscribers and our service provider partners create a significant competitive advantage in the connected property market.

- **Scale of Subscriber Base and Service Provider Coverage.** Our platforms currently support millions of residential and commercial subscribers and we have over 10,900 service provider partners who market, sell and support Alarm.com solutions. In 2021, our platforms processed more than 200 billion data points generated by over 100 million connected devices. We believe the combination of the size of our subscriber base, service provider network and the volume of data generated by the integrated devices on our platforms creates a competitive advantage for us.
- **Security Grade, Cloud-Based Architecture.** We built our platforms with a cloud-based, multi-tenant architecture that allows for real-time updates and upgrades. Our platforms were purpose-built from the ground up with life safety standards at the core.
- **Highly Scalable Data Analytics Engine.** We processed more than 200 billion data points in 2021. As consumer preferences shift towards more proactive, intelligence-based features, we believe that our investments in proprietary analytics give us a competitive advantage.
- **Trusted Brand.** We believe that our leading position in our space is an indicator that we have developed a trusted brand with service providers and consumers for innovative and reliable technology and service. Our iOS and Android mobile apps have each been downloaded millions of times and both apps consistently have impressive user ratings.
- **Commitment to Innovation.** We are a pioneer in the intelligently connected property market and we continue to make significant investments in innovative research and development. Our investment has resulted in 597 issued patents as of December 31, 2021 and numerous patent applications pending which we believe can help ensure that our technology remains competitively differentiated and legally protected.

Growth Strategy

We intend to maintain our leadership position by continuing to develop and deploy innovative technologies and by expanding our ecosystem of partners. Our key growth strategies include:

- **Drive SaaS and license revenue growth and add new service providers.** We will continue to focus on helping our service provider partners succeed in driving adoption of our full suite of services. We offer sales and marketing resources to help our service provider partners become more effective in selling our solutions and we will continue to make significant investments to support our service provider network. In addition, we plan to continue to expand our network of service provider partners.
- **Upgrade traditional security customers to our solutions.** We believe there is a significant opportunity for our service provider partners to expand adoption of our connected solutions within their customer base. We intend to leverage our status as a trusted provider to drive consumer interest in our offerings and enable our service provider partners to upgrade their legacy security customers to our connected property solutions.
- **Continue to invest in our platforms.** As a pioneer in connected home and business solutions, we have made significant investments in building our platforms for over 20 years. We intend to continue to invest heavily to add additional innovative offerings and broaden our suite of solutions. As the market for IoT grows and more devices become connected, we are building technology and partnerships to connect these devices to our platforms.
- **Expand international presence.** We are investing in international expansion because we believe there is a significant global market opportunity for our products and services. Today, our products are currently localized and available in approximately 40 countries outside of North America, including Argentina, Australia, Belgium, Brazil, Chile, Colombia, Iceland, Ireland, Netherlands, New Zealand, Sweden, Switzerland and Turkey. We intend to continue to grow our number of international subscribers by strengthening our presence in existing markets and expanding to additional markets.
- **Expand into the commercial market segment.** We believe there is significant opportunity to expand our products and services to small and medium businesses, ranging from single-site to multi-location enterprises. We intend to leverage many of our existing solutions, including our Alarm.com for Business solution, to provide such businesses with visibility into their key operational activities, keep businesses secure, provide facility access to employees and vendors remotely and manage their energy costs.
- **Channel expansion.** Today, many consumers purchase connected devices through a security service provider. Continued growth in the connected property market has invited new participants into the space that can complement our current partner ecosystem. We intend to continue to develop partnerships with heating, ventilation and air conditioning installers, property management companies, utility companies, insurance providers and other services companies to expand avenues into residential and commercial properties.
- **Pursue selective strategic acquisitions.** We may selectively pursue future acquisitions of businesses, technologies, or products that complement our platforms or align with our overall growth strategy. Such acquisitions could expand our team and/or technology portfolio to help us add new features to our platforms, accelerate the pace of our innovation or help us access attractive markets.

Market Opportunity

Our addressable market consists of both residential and commercial properties. Our residential subscribers are typically owners of single-family homes and our commercial subscribers often include retail businesses, restaurants, schools and universities, commercial facilities and professional offices.

We believe there is an opportunity to significantly increase the adoption of our solutions as more residential and commercial property owners adopt intelligently connected property solutions and as the major technology trends of mobile access, the IoT, big data and cloud technology continue to create opportunities to connect people with their properties in new ways. According to research data published by Strategy Analytics in 2021, the global installed base for smart home devices will grow at a 22.7% compound annual growth rate from 2021 to 2025. We believe that this trend highlights a significant opportunity for market participants, including Alarm.com and our service provider partners.

Our Technology

Cloud Services Platform

Our internal engineering teams have designed and developed our core technology. As an industry leader, we believe we have robust cloud service platforms for the intelligently connected property. Our cloud services platforms manage communication with the system at the property, intelligently direct alerts and notifications, learn patterns and identify anomalies and manage video processing and storage. Additionally, our platforms enable device integrations through application program interfaces, or APIs, and offer our service provider partners extensive workflow efficiency services.

Since our inception, we have utilized a multi-tenant SaaS platform architecture to enable rapid innovation in a scalable environment. Our platforms are architected to scale and our technology team has developed proprietary cloud-based applications to support our service provider partners and subscribers. Security and life safety are mission critical components of our service offering; thus, we are committed to high reliability standards. We operate our Alarm.com cloud services platform through two redundant network operations centers located in Phoenix, Arizona and Ashburn, Virginia. Each center is designed to run the entire Alarm.com platform independent of the other.

Cybersecurity

The solutions we provide rely on technology and data, and cybersecurity is a crucial part of our business. We conduct our business in the United States and are expanding internationally in various other countries. Conducting expanded international operations subjects us to additional risks, including our exposure to cyber-attacks. We dedicate substantial resources to the protection of our data, systems and infrastructure. We have implemented and continue to maintain a comprehensive information security program consisting of policies, procedures, and technology designed to maintain the privacy, security and integrity of our data, confidential information, systems and networks. Among other things, the program includes controls designed to limit and monitor access to our systems, networks and data, prevent inappropriate or unauthorized access or modification, and monitor for threats or vulnerability.

Hardware and Manufacturing

We are involved in designing and manufacturing various types of hardware that enable our solutions, including:

- *Cellular Communication Modules.* We offer cellular communications modules that are tightly integrated with security system control panels, sensors and other devices. We regularly pioneer technical advances in this space, including the expansion of our deployment of security services hardware with 4G LTE and LTE CAT-M cellular network connections. All of our modules, designed by our device engineering team and manufactured in the United States by a contract manufacturing partner, provide a dedicated and fully managed two-way cellular connection between the subscriber's property and our cloud platforms. The modules run our proprietary firmware and enable:
 - Real-time analysis of system events reported by security sensors and other devices.
 - Local automation rule execution.
 - The management of message transmissions to our cloud platforms for further processing.
- *Flex IO.* A versatile, completely wireless device that extends awareness across a property and to assets in any location. It can easily install on a backyard gate, detached garage, remote storage unit, or it can be tethered to other assets like a boat, tractor or lawn mower, and triggers activity notifications to subscribers as well as video recordings when activity is detected, or an asset is moved.
- *Image Sensor.* Our image sensor, designed by our device engineering team and manufactured in the United States by a contract manufacturing partner, is a wireless, battery-operated, passive infrared motion sensor that captures images based on various system triggers. These images are transmitted by our cellular communications module to our cloud platforms. Subscribers can securely view images through our website and mobile apps, as well as customize their notification settings to have new images automatically sent via SMS and email.
- *Video Cameras.* We offer a suite of high definition, Internet Protocol, video cameras and video doorbells to enable our video monitoring services. Our indoor, outdoor, and video doorbell cameras include options for night vision capabilities as well as wireless or Power over Ethernet communication features. We also offer a network video recording device, the SVR, for on premise, continuous video recording seamlessly connected to our cloud platforms for remote playback through our user interfaces. All of these video products and SVRs are specified to our platforms through proprietary software.

- *Alarm.com Smart Thermostats.* Our Smart Thermostats combine elegant design, sophisticated cloud services and advanced energy management features. They were designed by our Building36 and device engineering teams to work in concert with other devices in the connected property. Our Smart Thermostats communicate with the Alarm.com communications module via Z-wave and support both battery power and common wire power installation.
 - Remote temperature sensors can pair with our Smart Thermostats to enable temperature set points for any room in the property, not just the room where the thermostats are installed. Our Smart Thermostats support multiple remote temperature sensors for precise temperature control for a residential or commercial property.
 - We designed our Smart Thermostats to be easy to install and support remotely. The MobileTech app assists in proper wiring and installation and Remote Toolkit enables remote access to the thermostat settings for easy troubleshooting and support.
- *Smart Water Valve + Meter.* Our Smart Water Valve + Meter is an innovative addition to the Alarm.com Water Management solution, identifying low and high-volume water leaks and constantly monitoring overall water use and current usage rates in homes and businesses. Freeze and winter plumbing alerts include a reminder to winterize external water supplies and notifications triggered by local weather conditions when both water and outdoor temperatures create a greater risk for frozen pipes. Deep integration with the Alarm.com platform leverages intelligence and insights to help reduce the risk of losses from water emergencies, while also improving water conservation efforts.

Research and Development

We invest substantial resources in research and development to enhance our platforms and applications, support our technology infrastructure, develop new capabilities and conduct quality assurance testing. We expect to invest significantly in continued research and development efforts to expand the capabilities of our technology. Our research and development of new products and services is a multidisciplinary effort across our product management, program management, software engineering, device engineering, quality engineering, configuration management and network operations teams.

Service Provider Network

Our trusted service provider partner network is key in driving the adoption of connected home and commercial solutions. Our solutions are sold, installed, and serviced by a network of independent licensed, professional service provider partners. Our channel network currently consists of over 10,900 active service provider partners, including smaller local providers, larger regional providers and national service providers with thousands of employees. We have also seen growth in other areas of our channel network, including new providers in the intelligent automation, HVAC, property management and insurance markets.

We believe this highly trusted, established network is a core strength that enables an efficient and scalable customer acquisition model, allowing us to focus on technology innovation. We also believe that the combination of our solutions and our service provider partners' expertise is the most effective way to drive mass market adoption of the intelligently connected property.

The traditional security and home automation market is highly fragmented with approximately 15,000 security service providers nationally. According to the Barnes Buchanan 2022 Security Alarm Industry Overview and Update report, the top 5 dealers represented approximately 34% of all industry recurring monthly revenue in 2021. The distribution of revenue among our service provider partners is reflective of the industry overall. ADT LLC represented greater than 15% but not more than 20% of our revenue in each of 2019, 2020 and 2021.

Subscribers

Our platforms currently support millions of residential and commercial subscribers. We define the number of subscribers as the number of residential or commercial properties to which we are delivering at least one of our solutions. A subscriber who subscribes to one of our service level packages as well as one or more of our a la carte add-ons is counted as one subscriber. Our number of subscribers does not include the customers of our service provider partners to whom we license our intellectual property, as they do not utilize one of our SaaS platforms. Our subscriber acquisition cost payback period has historically been one year or less.

Sales and Marketing

The goal of our sales team is to help our service provider partners succeed in selling, installing and supporting our full suite of solutions. Our sales team is also responsible for recruiting new service provider partners to Alarm.com. We also have a global business development team dedicated to establishing new service provider and distribution relationships in international markets.

Our marketing team is focused on empowering our service provider partners to effectively promote and sell our solutions. We design, develop and provide end-to-end marketing services including tools and content for lifecycle marketing to help our service providers build awareness, create interest, activate subscribers, develop and maintain the ongoing customer relationship, increase customer engagement, and generate upsell and referral opportunities. While we offer tools and services to assist our service providers when they are marketing to potential subscribers, we do not control or influence the marketing activities performed by our service providers, as they are free to select the marketing tools they believe will be the most effective. Our contracts with our service providers require that they comply with all applicable rules and laws when engaging in marketing activities. We also offer comprehensive training opportunities through our Alarm.com Academy, including in-person training courses and an online learning management system.

We believe our sales and marketing approach enables us to expand our breadth of service providers, provide highly customized services and scale quickly.

Service Provider Support

We support the full suite of software and hardware products on the Alarm.com platform through a highly trained and experienced team of professionals based in the United States. We primarily support our service provider partners. Our service provider partners, in turn, support their customers, who are our subscribers. To that end, subscribers occasionally reach us directly with support needs and we either assist the subscriber directly or, when appropriate, route the subscriber to the appropriate service provider partner for additional assistance.

We offer high-quality support to our service providers via phone, web ticketing and email. With every interaction, our team is committed to exceptional customer satisfaction and industry-leading response times. We use a tiered structure to efficiently escalate and resolve issues of varying complexity and to scale our support organization as we grow. Our staff is multilingual and we continue to grow our language capabilities to support our international expansion.

Our Competition

The market in which we participate for connected property solutions is fragmented, highly competitive and constantly evolving. We expect competition to continue from existing competitors as well as potential new market entrants in the interactive security, video monitoring, intelligent automation and energy management markets. Our current competitors include providers of other technology platforms for the connected property with interactive security, including Alula (formed following the merger of ipDatatel, LLC and Resolution Products, LLC), Avigilon Corporation, Brivo Inc., Digital Monitoring Products Inc., Eagle Eye Networks Inc., Honeywell International Inc., Resideo Technologies Inc., SecureNet Technologies, LLC, Telular Corporation (acquired by AMETEK, Inc.), United Technologies Corporation, and Verkada Inc., which sell solutions to service providers, cable operators, technology retailers and other residential and commercial automation providers. We also compete with interactive, monitored security solutions sold directly to subscribers and may also be sold through our partners, including companies like Abode Systems, Inc., Arlo Technologies, Inc., Cove Smart, LLC, Scout Security, Inc. and SimpliSafe, Inc. In addition, our service provider partners compete with security solutions sold directly to subscribers, as well as managed service providers, such as cable television, telephone and broadband companies like, Comcast Cable Communications, LLC and Rogers Communications, Inc., and providers of point products, including Google Inc.'s Nest Labs, Inc. Amazon.com offers Amazon Home Services security packages with bundled equipment and professional installation, and Amazon Key, a security camera and smart lock integration feature. Ring Inc., owned by Amazon.com, offers a connected video doorbell, video cameras and an integrated security system, Ring Alarm. Samsung's SmartThings offers a security system and a home automation and awareness hub. Arlo Technologies, Inc. and Wyze Labs, Inc. offers connected video cameras, a connected video doorbell, and smart security devices. Apple Inc. offers a feature that allows some manufacturers' connected devices and accessories, including video cameras and doorbells, to be controlled through its HomeKit service available in Apple's iOS operating system. Additionally, Canary and other companies offer all in one video monitoring and awareness devices. In addition, we may compete with other large and small technology companies that offer control capabilities among their products, applications and services, and have ongoing development efforts to address the broader connected home market.

Many of our competitors have longer operating histories, greater name recognition, larger customer bases and significantly greater financial, technical, sales, marketing, distribution and other resources than we have. We expect to encounter new competitors as we enter new markets as well as increased competition, both domestically and internationally, from other established and emerging home automation, security monitoring, video monitoring and automation, wellness, and energy management companies as well as large technology companies. In addition, there may be new technologies that are introduced that reduce demand for our solutions or make them obsolete. Our current and potential competitors may also establish cooperative relationships among themselves or with third parties and rapidly acquire significant market share. Increased competition could also result in price reductions and loss of market share, any of which could result in lower revenue and negatively affect our ability to grow our business. We believe the principal competitive factors in the connected property market include the following:

- simplicity and ease of use;
- ability to offer persistent awareness, control, and intelligent automation;
- breadth of features and functionality provided;
- flexibility of the solutions and ability to personalize for the individual consumer;
- compatibility with a wide selection of third-party devices;
- pricing, affordability, and accessibility;
- sales reach and local installation and support capabilities; and
- brand awareness and reputation.

We believe that we compete favorably with respect to each of these factors. Additionally, we believe that our cloud-based software platforms, intelligently connected property solutions, and proven scalability help further differentiate us from competitors. Nevertheless, our competitors may have substantially greater financial, technical and other resources, greater brand recognition, larger sales and marketing budgets and broader distribution channels than we do.

Our Intellectual Property

Our success and ability to compete effectively depend in part on our ability to protect our proprietary technology and to establish and adequately protect our intellectual property rights. To accomplish these objectives, we rely on a combination of patent, trademark, copyright and trade secret laws in the United States and other jurisdictions, as well as license agreements, confidentiality agreements and other contractual protections.

As of December 31, 2021, we owned 544 issued United States utility patents, one issued United States design patent, eight issued Canadian patents, 11 issued Australian patents, among others, and these patents are scheduled to expire between 2022 and 2040. We continue to broaden our intellectual property portfolio and file patent applications and as of December 31, 2021, we had 285 pending utility patent applications and 38 pending provisional patent applications filed in the United States. We also had two pending international patent applications and 158 international patent applications pending under the Patent Cooperation Treaty. The claims for which we have sought patent protection apply to both our platforms and solutions. Our patent and patent applications generally apply to the features and functions of our platforms, and solutions and the applications associated with our platforms. We also have, and may be required to seek, licenses under patents or intellectual property rights owned by third parties, including open-source software and other commercially available software.

We also rely on several registered and unregistered trademarks to protect our brand. We have 20 registered trademarks in the United States, including Alarm.com and the Alarm.com logo and design, and eight registered trademarks in Canada, one in the United Kingdom and one in the European Union.

We seek to protect our intellectual property rights by requiring our employees and independent contractors involved in development to enter into agreements acknowledging that all inventions, trade secrets, works of authorship, developments, concepts, processes, improvements and other works generated by them on our behalf are our intellectual property, and assigning to us any rights, including intellectual property rights, that they may claim in those works.

We expect that products in our industry may be subject to third-party infringement lawsuits as the number of competitors grows and the functionality of products in different industry segments overlaps. We have brought infringement claims against third parties in the past and may do so in the future to defend our intellectual property position. In addition, from time to time, we may face claims by third parties that we infringe upon or misappropriate their intellectual property rights, and we may be found to be infringing upon or to have misappropriated such rights. In the future, we, or our service providers or subscribers, may be the subject of legal proceedings alleging that our solutions or underlying technology infringe or violate the intellectual property rights of others.

Environmental, Social and Corporate Governance Matters

Environmental

To operate long-term, we need to ensure that our local communities and the natural environment are thriving. To help meet these goals we intend to continue promoting, providing and investing in the further development of solutions that can help reduce energy waste and facilitate water conservation. These include demand response programs, smart thermostats, energy management solutions, Smart Water Valve + Meter device and advanced functionality within the Alarm.com app.

Our demand response programs manage over 700,000 connected devices for more than 60 energy utilities in North America. These programs support energy utilities as they pursue aggressive clean energy goals.

Our lineup of smart thermostats and intelligent energy management solutions can automatically adjust to reduce energy waste in residential and commercial properties. These solutions can change a thermostat's temperature set-point based on subscriber location, property occupancy and activity patterns, and if a door or window is left open for too long. To facilitate widespread adoption of energy management technology, we developed many of these capabilities to also work with smart thermostats manufactured by third party companies.

The Alarm.com mobile app includes customizable scenes buttons that can assist in increasing the potential for energy efficiency by adjusting multiple devices in the property with a single command. For example, a homeowner can turn on the fan, raise or lower shades, turn on or off lights and adjust the thermostat with a single command. Commercial users can create automated schedules to secure a property and automatically adjust the thermostat at a specified time.

Our recently launched Smart Water Valve + Meter device is part of a comprehensive water management solution. Two on-board flow sensors monitor water usage to facilitate water conservation behavior. The device can also detect burst pipes, major leaks, and wasteful slow persistent drips, and can respond by informing the property owners of opportunities to reduce water waste, or as needed, by automatically shutting off the water supply to quickly protect properties from damage.

Our commitment extends to the buildings in which our employees work. Many of our offices use LED lighting with sensors that turn off the lights when motion is not detected and several of our offices are Leadership in Energy and Environmental Design, or LEED, certified or Energy Star® certified, which indicates that the buildings help conserve energy and limit the amount of greenhouse gas emissions. Additionally, several of our offices have building recycling programs, including programs specific to batteries and electronics.

During 2021, we created a Sustainability Team that is focused on integrating sustainability throughout our organization. Through the efforts of the Sustainability Team and others throughout our organization, we have improved the packaging for some of our hardware by switching to recyclable materials and eliminating polyethylene bags from our user guides. We are also actively working towards replacing many of our paper manuals with online guides.

Social

We are committed to providing an equal opportunity for all employees regardless of race, gender, sexual orientation, religion or other differences. We want every employee to feel valued, respected and heard. We believe that recruiting from the widest available talent pool, and then facilitating collaboration among people of all experiences and backgrounds enhances our ability to innovate. In order to further support our talent development efforts, we identified Diversity Ambassadors to foster communication regarding diversity and inclusion initiatives, and to drive initiatives and trainings that improve our overall team performance via better collaboration while also increasing understanding amongst our diverse cultures. We continue to promote our Women in Tech group, aimed to empower women to grow their technical expertise and leadership in science, engineering and technology at Alarm.com. We also developed and launched an Apprenticeship Program to help break down traditional barriers to entry into the technology industry that provides hands on training that can be applied in the real world.

We continue to prioritize the health and safety of our employees during the COVID-19 pandemic. As we continue to navigate remote work and the stresses of the pandemic, it is important that we support the mental health of our employees. In 2021, we partnered with a company that helps support mental health in the workplace through trainings and information sessions. We also provide additional healthcare benefits to employees, making it safer and more convenient to get the care they need remotely. In addition to primary care, these additional remote healthcare benefits include physical therapy, mental health services and health coaching. In 2021, we also provided free access to an app that promotes wellness through meditation and provides employees with hundreds of guided exercises for meditation, sleep, focus and movement. We also partnered with a company that provides various family care benefits, including access to a self-service, searchable database of providers for family care needs, including care for children, adult dependents, pets and tutoring.

Governance

Our corporate behavior and leadership practices are based on integrity and ethical decision-making. Employees are informed about our governance expectations through our Code of Business Conduct, compliance training programs and ongoing communications. The Nominating and Corporate Governance Committee of our Board of Directors oversees our corporate governance objectives, strategies, goals, compliance and risk mitigation.

Our Human Capital Resources

As of December 31, 2021, we had 1,500 full-time employees, including 476 in sales and marketing, 837 in research and development and 187 in a general and administrative capacity. As of December 31, 2021, we had 1,363 employees in our Alarm.com segment and 137 employees in our Other segment. We also engage consultants and temporary employees from time to time. None of our employees are covered by collective bargaining agreements and we consider our relations with our employees to be good.

We recognize that attracting, motivating and retaining talent at all levels is critical to continuing our success. By improving employee retention and engagement, we also improve our ability to support our service provider partners and protect the long-term interests of our stockholders. We invest in our employees through high-quality benefits and various health and wellness initiatives and offer competitive compensation packages, ensuring fairness in internal compensation practices.

To further engage and incentivize our workforce, we offer a wide range of programs and avenues for support, motivation, and professional recognition. We utilize both instructor-led training and online learning to provide custom training courses to ensure our sales and services teams stay up-to-date on our products and service offerings. For our talent pipeline development, we work closely with individual departments to provide training and hands-on support for managers and leaders, to assess talent, identify development opportunities and discuss succession planning. In addition, we regularly conduct employee surveys to gauge employee engagement and identify areas of focus.

Government Regulations

Our business, operations and service provider partners are subject to various U.S. federal, state and local consumer protection laws, licensing regulation and other laws and regulations, and to similar laws and regulations in the other countries in which we operate. Compliance with these laws, rules, and regulations has not had a material effect upon our capital expenditures, results of operations or competitive position. Nevertheless, compliance with existing or future governmental regulations, including, but not limited to, those pertaining to global trade, business acquisitions, consumer protection, and taxes, could have a material impact on our business in subsequent periods. Refer to "Item 1A. Risk Factors" for a discussion of these potential impacts.

Corporate Information

Our principal executive offices are located at 8281 Greensboro Drive, Suite 100, Tysons, Virginia 22102. Our telephone number is (877) 389-4033. We completed our initial public offering in July 2015 and our common stock is listed on The Nasdaq Global Select Market under the symbol "ALRM."

On January 1, 2017, we acquired certain assets of ObjectVideo, Inc., or ObjectVideo, that constituted a business now called ObjectVideo Labs, LLC, or ObjectVideo Labs, including products, technology portfolio and engineering team. ObjectVideo was a pioneer in the fields of video analytics and computer vision with technology that extracts meaning and intelligence from video streams in real-time to enable object tracking, pattern recognition and activity identification. On March 8, 2017, we acquired certain assets related to the Connect business unit of Icontrol Networks, Inc., or Icontrol, and all of the outstanding equity interests of the two subsidiaries through which Icontrol conducted its Piper business. Connect provides a custom, on-premise interactive security and home automation platform for ADT Pulse® and several other service providers. Piper provides an all-in-one video and home automation hub. On October 21, 2019, we acquired 85% of the issued and outstanding capital stock of PC Open Incorporated, a Washington corporation, doing business as OpenEye. OpenEye provides cloud-managed video surveillance solutions for the enterprise commercial market. In September 2019, we acquired certain assets from an unrelated third party. In March of 2020, we acquired certain additional assets from two separate unrelated parties. Substantially all of the assets acquired in September 2019 and March 2020 consisted of in-process research and development, or IPR&D. We believe the acquisitions of the IPR&D will further our commitment to make significant investments in innovative research and development in the intelligently connected property market to broaden our suite of solutions as well as strengthen our smart intercom capability. On December 14, 2020, we acquired 100% of the issued and outstanding ownership interest units of Shooter Detection Systems, LLC, or SDS. SDS is a provider of an indoor gunshot detection solution that helps alert employees and the public against active shooter threats. In December of 2021, we acquired certain assets from an unrelated party. Substantially all of the assets acquired consisted of developed technology. We believe the acquisition of the developed technology will continue to advance our load-shaping energy management solution allowing additional devices to participate in utility programs that reduce or shift power consumption during peak demand periods.

Available Information

Our website is located at www.alarm.com and our investor relations website is located at <http://investors.alarm.com>. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, are available free of charge on our investor relations 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. The address of the SEC's website is www.sec.gov.

Webcasts of our earnings calls and certain events we participate in or host with members of the investment community are on our investor relations website. Additionally, we provide notifications of news or announcements regarding our business and financial performance, SEC filings, investor events, and our press and earnings releases, as part of our investor relations website. Investors and others can receive real-time notifications of new information posted on our investor relations website by signing up for email alerts and RSS feeds. Further corporate governance information, including our corporate governance guidelines and board committee charters, is also available on our investor relations website under the heading "Corporate Governance." The contents of our websites are not intended to be incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

ITEM 1A. RISK FACTORS

Risks Related to Our Business and Industry

Our business and results of operations may be negatively affected by the COVID-19 pandemic.

The COVID-19 pandemic has negatively impacted the global economy and global supply chains, and created significant disruption of global financial markets. Governments, public institutions and other organizations in many countries and localities where COVID-19 has been detected have taken certain emergency measures and may from time to time take additional emergency measures, to combat its spread, resurgences and variants, including imposing lockdowns, shelter-in-place orders, quarantines, restrictions on travel and gatherings and the extended shutdown of non-essential businesses that cannot be conducted remotely. These emergency measures remain in place to varying degrees. While vaccines have been approved for use in the United States and in many other countries, and vaccination efforts are well underway, it remains difficult to assess or predict the ultimate duration and economic impact of the COVID-19 pandemic due to a resurgence of COVID-19 and the emergence and severity of COVID-19 variants. To date, the COVID-19 pandemic has, and it may continue to, disrupt our hardware supply chain, including limited inventory availability, increased lead times, and shipping delays, as well as cause disruptions to and restrictions on our service providers' ability to travel and to meet with residential and commercial property owners who use our solutions, cancellations or postponement of certain events, or temporary closures of our facilities or the facilities of our service providers or suppliers. Further, given global supply chain shortages, our service providers may be unable to source other hardware required for installation, such as security control panels and related peripherals, which could result in reduced demand for our products and services. See "We depend on our suppliers. The loss of any key supplier or the inability of a key supplier to deliver their products to us on time or at the contracted price would materially and adversely affect our business, financial condition, cash flows and results of operations" below. The COVID-19 pandemic has also resulted in significant volatility in global financial markets, which may reduce our ability to access capital and which could negatively affect our liquidity in the future. This economic and financial uncertainty may also negatively impact pricing for our platform or cause customers to reduce or postpone purchasing our solutions, which may, in turn, negatively affect our revenue, cash flows, results of operations and financial condition. The increased uncertainty and volatility in global markets may also negatively impact our growth opportunities whether organically or through acquisitions. Because our service provider partners have indicated that they typically have three to five-year service contracts with residential and commercial property owners who use our solutions, any such adverse effects may not be fully reflected in our results of operation until future periods.

The uncertainty caused by and the unprecedented nature of the current COVID-19 pandemic makes the long-term impact of the pandemic difficult to predict and the full extent to which it may negatively affect our industry, our supply of hardware products, our business operations or our operating results is uncertain. Weak global economic conditions, additional business disruptions or closures and spikes or surges in COVID-19 infection, also may exacerbate the impact of the pandemic. Further, we do not yet know the full effects of the COVID-19 pandemic on our suppliers and service providers. However, if the economy fails to fully recover or there are additional shutdowns of non-essential businesses due to a resurgence of COVID-19 and the emergence and severity of COVID-19 variants, our SaaS and license revenue growth rate may be lower in future periods, with a corresponding reduction in hardware revenue, if some consumers or small businesses defer or cancel previously anticipated purchases.

The ultimate impact to our results will depend to a large extent on currently unknowable developments, including the length of time the disruption and uncertainty caused by COVID-19 will continue, which will, in turn, depend on, among other things, the actions taken by authorities and other entities to effect a widespread roll-out of the available vaccines or otherwise contain COVID-19 or treat its impact, including the impact of any re-opening plans, additional closures and spikes or surges in COVID-19 infection, the emergence and severity of COVID-19 variants and individuals' and companies' risk tolerance regarding health matters going forward, all of which are beyond our control. Accordingly, these potential impacts, while uncertain, could harm our business and adversely affect our operating results. In addition, to the extent the ongoing COVID-19 pandemic adversely affects our business and results of operations, it may also have the effect of heightening many of the other risks and uncertainties described in this "Risk Factors" section which may materially and adversely affect our business and results of operations.

Our actual operating results may differ significantly from any guidance provided.

Our guidance, including forward-looking statements, is prepared by management and is qualified by, and subject to, a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Many of these uncertainties and contingencies are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. We generally state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed but are not intended to represent that actual results could not fall outside of the suggested ranges.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions of the guidance furnished by us will not materialize or will vary significantly from actual results. In particular, guidance relating to the anticipated results of operations of an acquired business is inherently more speculative in nature than other guidance as management will, necessarily, be less familiar with the business, procedures and operations of the acquired business. Similarly, guidance offered in

periods of extreme uncertainty, such as the uncertainty caused by the COVID-19 pandemic and the evolving responses to the resulting public health crisis, is inherently more speculative in nature than guidance offered in periods of relative stability. Accordingly, any guidance with respect to our projected financial performance is necessarily only an estimate of what management believes is realizable as of the date the guidance is given. Actual results will vary from the guidance and the variations may be material. Investors should also recognize that the reliability of any forecasted financial data will diminish the farther in the future that the data is forecasted.

Actual operating results may be different from our guidance, and such differences may be adverse and material. In light of the foregoing, investors are urged to put the guidance in context and not to place undue reliance on it. In addition, the market price of our common stock may reflect various market assumptions as to the accuracy of our guidance. If our actual results of operations fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially.

We have taken certain precautions due to the COVID-19 pandemic that could harm our business.

In light of the uncertain and rapidly evolving situation relating to the spread of COVID-19 and shelter-in-place orders in many of the locations we have offices or other facilities, we have taken temporary precautionary measures intended to help minimize the risk of COVID-19 to our employees, service providers and subscribers, as well as the communities in which we participate. These precautionary measures could negatively impact our business. In particular, we have enabled substantially all of our employees to work remotely in compliance with relevant government advice, have suspended all non-essential travel for our employees, are canceling, postponing or limiting company-sponsored events, employee attendance at industry events and in-person work-related meetings. Although we continue to monitor the situation and may adjust our current policies as more information and guidance become available, temporarily suspending travel and shifting non-essential function employees to work-from-home could negatively impact our marketing efforts, slow down our recruiting efforts, or create operational or other challenges, including decreased productivity, any of which could harm our business. Though we are taking these precautionary measures as well as preparing our systems for the likelihood of increased cybersecurity threats, there is no guarantee that our precautions will fully protect our employees or enable us to maintain our productivity and any illnesses linked or alleged to be linked to our employees or service providers, whether accurate or not, could further harm our business. The full extent to which COVID-19 and our precautionary measures related thereto may impact our business will depend on future developments, which are highly uncertain and cannot be predicted at this time.

Our quarterly results of operations have fluctuated and are likely to continue to fluctuate. As a result, we may fail to meet or exceed the expectations of investors or securities analysts, which could cause our stock price to decline.

Our quarterly operating results, including the levels of our revenue, gross margin, cash flow and deferred revenue, may fluctuate as a result of a variety of factors, including adverse macroeconomic conditions, the product mix that we sell, the relative sales related to our platforms and solutions and other factors which are outside of our control. If our quarterly revenue or results of operations fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Fluctuations in our results of operations may be due to a number of factors, including:

- the portion of our revenue attributable to software as a service, or SaaS, and license versus hardware and other sales;
- our ability to manage the businesses we have acquired, and to integrate and manage any future acquisitions of businesses;
- fluctuations in demand, including due to seasonality or broader economic factors, for our platforms and solutions;
- changes in pricing by us in response to competitive pricing actions;
- our ability to increase, retain and incentivize the service provider partners that market, sell, install and support our platforms and solutions;
- the ability of our hardware vendors to continue to manufacture high-quality products and to supply sufficient components and products to meet our demands;
- the timing and success of introductions of new solutions, products or upgrades by us or our competitors and the entrance of new competitors;
- changes in our business and pricing policies or those of our competitors;
- the ability to accurately forecast revenue as we generally rely upon our service provider partner network to generate new revenue;

- our ability to control costs, including our operating expenses and the costs of the hardware we purchase;
- changes in U.S. trade policies, including new or potential tariffs or penalties on imported products;
- competition, including entry into the industry by new competitors and new offerings by existing competitors;
- issues related to introductions of new or improved products such as supply chain disruptions or shortages of prior generation products or short-term decreased demand for next generation products;
- perceived or actual problems with the security, privacy, integrity, reliability, quality or compatibility of our solutions, including those related to security breaches in our systems, our subscribers' systems, unscheduled downtime, or outages;
- the amount and timing of expenditures, including those related to expanding our operations, including through acquisitions, increasing research and development, introducing new solutions or paying litigation expenses;
- the ability to effectively manage growth within existing and new markets domestically and abroad;
- changes in the payment terms for our platforms and solutions;
- collectibility of receivables due from service provider partners and other third parties;
- the strength of regional, national and global economies; and
- the impact of natural disasters such as earthquakes, hurricanes, fires, power outages, floods, epidemics, pandemics, including COVID-19, and other catastrophic events or man-made problems such as terrorism or global or regional economic, political and social conditions.

Fluctuations in our quarterly operating results may be particularly pronounced in the current economic environment due to the uncertainty caused by and the unprecedented nature of the current COVID-19 pandemic. Due to the foregoing factors and the other risks discussed in this Annual Report, you should not rely on quarter-to-quarter comparisons of our results of operations as an indication of our future performance. You should not consider our recent revenue growth and changes in Adjusted EBITDA or results of one quarter as indicative of our future performance. See the "Non-GAAP Measures" section of Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" for a discussion of the limitations of Adjusted EBITDA and a reconciliation of Adjusted EBITDA to net income, the most comparable GAAP measurement, for the years ended December 31, 2021, 2020 and 2019.

Downturns in general economic and market conditions and reductions in spending may reduce demand for our platforms and solutions, which could harm our revenue, results of operations and cash flows.

Our revenue, results of operations and cash flows depend on the overall demand for our platforms and solutions. Negative conditions in the general economy both in the United States and abroad, including conditions resulting from the COVID-19 pandemic, changes in gross domestic product growth, financial and credit market fluctuations, energy costs, international trade relations and other geopolitical issues, the availability and cost of credit and the global housing and mortgage markets could cause a decrease in consumer discretionary spending and business investment and diminish growth expectations in the U.S. economy and abroad.

During weak economic times, the available pool of service providers may decline as the prospects for home building and home renovation projects diminish, which may have a corresponding impact on our growth prospects. In addition, there is an increased risk during these periods that an increased percentage of our service provider partners will file for bankruptcy protection, which may harm our reputation, revenue, profitability and results of operations. In addition, we may determine that the cost of pursuing any claim may outweigh the recovery potential of such claim. Likewise, consumer bankruptcies can detrimentally affect the business stability of our service provider partners.

The current COVID-19 pandemic has caused significant uncertainty and volatility in global markets, which has and may continue to cause consumer discretionary spending to decline for an unknown period of time. A prolonged economic slowdown and a material reduction in new home construction and renovation projects may result in diminished sales of our platforms and solutions. Further worsening, broadening or protracted extension of the economic downturn could have a negative impact on our business, revenue, results of operations and cash flows.

We sell security and life safety solutions and if our solutions fail for any reason, we could be subject to liability and our business could suffer.

We sell security and life safety solutions, which are designed to secure the safety of our subscribers and their residences or commercial properties. If these solutions fail for any reason, including due to defects in our software, a carrier outage, a failure of our network operations centers, a failure on the part of one of our service provider partners or user error, some of which have happened from time to time, we could be subject to liability for such failures and our business could suffer.

Our platforms and solutions may contain undetected defects in the software, infrastructure, third-party components or processes. In addition, due to the COVID-19 pandemic, we have enabled substantially all of our employees to work remotely which may make us more vulnerable to cyber-attacks and may create operational or other challenges, any of which could harm our systems or our business. Although we have taken precautionary measures to prepare for these threats and challenges, there is no guarantee that our precautions will fully protect our systems. We continue to monitor the situation and may adjust our current policies as more information and guidance become available. If our platforms or solutions suffer from defects, we could experience harm to our branded reputation, claims by our subscribers or service provider partners or lost revenue during the period required to address the cause of the defects. We have found and may find defects in new, acquired or upgraded solutions, resulting in loss of, or delay in, market acceptance of our platforms and solutions, which could harm our business, financial condition, cash flows or results of operations.

Since solutions that enable our platforms are installed by our service provider partners, if they do not install or maintain such solutions correctly, our platforms and solutions may not function properly. If the improper installation or maintenance of our platforms and solutions leads to service or equipment failures after introduction of, or an upgrade to, our platforms or a solution, we could experience harm to our branded reputation, claims by our subscribers or service provider partners or lost revenue during the period required to address the cause of the problem. Further, we rely on our service provider partners to provide the primary source of support and ongoing service to our subscribers and, if our service provider partners fail to provide an adequate level of support and services to our subscribers, it could have a material adverse effect on our reputation, business, financial condition, cash flows or results of operations.

Any defect in, or disruption to, our platforms and solutions could cause consumers not to purchase additional solutions from us, prevent potential consumers from purchasing our platforms and solutions or harm our reputation. Although our contracts with our service provider partners limit our liability to our service provider partners for these defects, disruptions or errors, we nonetheless could be subject to litigation for actual or alleged losses to our service provider partners or our subscribers, which may require us to spend significant time and money in litigation or arbitration, or to pay significant settlements or damages. Defending a lawsuit, regardless of its merit, could be costly, divert management's attention and affect our ability to obtain or maintain liability insurance on acceptable terms and could harm our business. Although we currently maintain some warranty reserves, we cannot assure you that these warranty reserves will be sufficient to cover future liabilities.

Our business is subject to the risks of earthquakes, hurricanes, fires, power outages, floods, pandemics, natural disasters and other catastrophic events, and to interruption by man-made problems such as terrorism or global or regional economic, political and social conditions.

A significant natural disaster, such as an earthquake, hurricane, fire, flood, or a public health pandemic, such as COVID-19, or a significant power outage could harm our business, financial condition, cash flows and results of operations. The impact of climate change may increase these risks due to changes in weather patterns, such as increases in storm intensity and frequency, sea-level rise, melting of permafrost and temperature extremes in areas where we conduct our business. Natural disasters could affect our hardware vendors, our wireless carriers or our network operations centers. Further, if a natural disaster occurs in a region from which we derive a significant portion of our revenue, such as metropolitan areas in North America, consumers in that region may delay or forego purchases of our platforms and solutions from service providers in the region, which may harm our results of operations for a particular period. In addition, terrorist acts or acts of war could cause disruptions in our business or the business of our hardware vendors, service providers, subscribers or the economy as a whole. More generally, these and other geopolitical, social and economic conditions could result in increased volatility in worldwide financial markets and economies that could harm our sales. Given our concentration of sales during the second and third quarters, any disruption in the business of our hardware vendors, service provider partners or subscribers that impacts sales during the second or third quarter of each year could have a greater impact on our annual results. All of the aforementioned risks may be augmented if the disaster recovery plans for us, our service provider partners and our suppliers prove to be inadequate. To the extent that any of the above results in delays or cancellations of orders, or delays in the manufacture, deployment or shipment of our platforms and solutions, our business, financial condition, cash flows and results of operations would be harmed.

We may not sustain our growth rate and we may not be able to manage any future growth effectively.

We have experienced significant growth and also have substantially expanded our operations in a short period of time. Our revenue increased from \$420.5 million in 2018 to \$749.0 million in 2021. We do not expect to achieve similar growth rates in future periods. You should not rely on our operating results for any prior quarterly or annual periods as an indication of our future operating performance. If we are unable to maintain expected revenue growth in both absolute dollars and as a percentage of prior period revenue, our financial results could suffer and our stock price could decline.

Our future operating results depend, to a large extent, on our ability to successfully manage any future expansion and growth. To successfully manage our growth and obligations as a public company, we believe we must effectively, among other things:

- maintain our relationships with existing service provider partners and add new service provider partners;
- increase our subscriber base and help our service provider partners maintain and improve their revenue retention rates, while also expanding their cross-sell effectiveness;
- manage our relationships with our hardware vendors and other key suppliers;
- add, train and integrate sales and marketing personnel;
- expand our international operations; and
- continue to implement and improve our administrative, financial and operational systems, procedures and controls.

We intend to continue to invest in research and development, sales and marketing, and general and administrative functions and other areas to grow our business. We are likely to recognize the costs associated with these increased investments earlier than some of the anticipated benefits and the return on these investments may be lower, or may develop more slowly, than we expect, which could adversely affect our operating results.

If we are unable to manage our growth effectively, we may not be able to take advantage of market opportunities or develop new solutions or enhancements to our existing solutions and we may fail to satisfy subscriber and service provider partner requirements, maintain the quality of our solutions, execute on our business plan or respond to competitive pressures, which could result in our financial results suffering and a decline in our stock price.

We have expanded our business rapidly in recent periods. If we fail to manage the expansion of our operations and infrastructure effectively, we may be unable to execute our business plan, maintain high levels of service or address competitive challenges adequately.

We increased our number of full-time employees from 884 as of December 31, 2018 to 1,500 as of December 31, 2021. Our growth has placed, and may continue to place, a significant strain on our managerial, administrative, operational, financial and other resources. We intend to further expand our overall business, service provider partner network, subscriber base, headcount and operations, including by acquiring other businesses. Creating and maintaining a global organization and managing a geographically dispersed workforce requires substantial management effort and significant additional investment in our infrastructure. We will be required to continue to improve our operational, financial and management controls and our reporting procedures to ensure timely and accurate reporting of our operational and financial results and we may not be able to do so effectively. As such, we may be unable to manage our expenses effectively in the future, which may negatively impact our gross profit or operating expenses in any particular quarter. If we fail to manage our anticipated growth and change in a manner that preserves the key aspects of our corporate culture, the quality of our solutions may suffer, which could negatively affect our brand and reputation and harm our ability to retain and attract service provider partners and consumers.

From time to time, we are involved in legal proceedings where a negative outcome, including an adverse litigation judgment or settlement, could expose us to monetary damages or limit our ability to operate our business, resulting in a material adverse effect on our business, financial condition, cash flows and results of operations.

We are involved and have been involved in the past in legal proceedings from time to time, including claims directly against us or claims against certain of our service provider partners where we have agreed to indemnify those service provider partners. For example, on June 2, 2015, Vivint filed a lawsuit against us alleging that our technology directly and indirectly infringes six patents purchased by Vivint. On January 10, 2022, EcoFactor, Inc., or EcoFactor, filed a lawsuit against us in U.S. District Court, District of Oregon, alleging Alarm.com's products and services directly and indirectly infringe five U.S. patents owned by EcoFactor. On July 22, 2021, Causam Enterprises, Inc., or Causam, filed a lawsuit against us in U.S. District Court, Western District of Texas, alleging that Alarm.com's smart thermostats infringe four U.S. patents owned by Causam. On July 28, 2021, Causam filed a complaint with the U.S. International Trade Commission, or ITC, naming Alarm.com Incorporated, Alarm.com Holdings, Inc., and EnergyHub, Inc., among others, as proposed respondents. The complaint alleges infringement of the same four patents Causam asserted in district court. See the section of this Annual Report titled "Legal Proceedings" for additional information regarding each of these matters and the other legal proceedings we are involved in. We may not be able to accurately assess the risks related to any of these suits, and we may be unable to accurately assess our level of exposure as the results of any litigation, investigations and other legal proceedings are inherently unpredictable and expensive. Any claims against us, whether meritorious or not, could be time consuming, result in costly litigation, damage our reputation, require significant amounts of management time and divert significant resource. Companies in our industry have been subject to claims related to patent infringement, regulatory matters, and product liability, as well as contract and employment-related claims. As a result of patent infringement and other intellectual property proceedings, we have, and may be required to seek in the future, licenses under patents or intellectual property rights owned by third parties, including open-source software and other commercially available software, which can be costly, or cross-license agreements relating to our and third-party intellectual property. The outcome of legal claims and proceedings against us cannot be predicted with certainty, and a negative outcome could result in a material adverse effect on our business, financial condition, cash flows and results of operations.

Our business operates in a regulated industry.

Our business, operations and service provider partners are subject to various U.S. federal, state and local consumer protection laws, licensing regulation and other laws and regulations, and to similar laws and regulations in the other countries in which we operate. Our advertising and sales practices and that of our U.S. service provider partner network are subject to regulation by the U.S. Federal Trade Commission, or the FTC, in addition to state consumer protection laws. The FTC and the Federal Communications Commission have issued regulations that place restrictions on, among other things, unsolicited automated telephone calls to residential and wireless telephone subscribers by means of automatic telephone dialing systems and the use of prerecorded or artificial voice messages. If our service provider partners were to take actions in violation of these regulations, such as telemarketing to individuals on the "Do Not Call" registry or using automatic telephone dialing systems and prerecorded or artificial voice messages, we could be subject to fines, penalties, private actions or enforcement actions by government regulators. Although we have taken steps to insulate ourselves from any such wrongful conduct by our service provider partners, and to contractually require our service provider partners to comply with these laws and regulations, we have in the past incurred costs to settle alleged violations of the Telephone Consumer Protection Act, or TCPA, and no assurance can be given that we will not be exposed to future liability as result of our service provider partners' conduct. Further, to the extent that any changes in law or regulation further restrict the lead generation activity of our service provider partners, these restrictions could result in a material reduction in subscriber acquisition opportunities, reducing the growth prospects of our business and adversely affecting our financial condition and future cash flows. In addition, most states in which we operate have licensing laws directed specifically toward the monitored security services industry. Our business relies heavily upon cellular telephone service to communicate signals. Cellular telephone companies are currently regulated by both federal and state governments. State-level privacy and data security laws in California and various other U.S. states regulate our, and our service provider partners', use, collection, and disclosure of subscribers' personal information. A number of proposed privacy bills in other U.S. states could place restrictions on how we and our service provider partners use personal information and market to consumers in those states. Other laws and regulations, including consumer protection laws, laws and regulations governing advertising and sales practices, as well as privacy and data security laws and regulations apply in the other countries in which we operate. See "Evolving government and industry regulation and changes in applicable laws relating to the Internet and data privacy may increase our expenditures related to compliance efforts or otherwise limit the solutions we can offer, which may harm our business and adversely affect our financial condition" below. Changes in laws or regulations could require us to change the way we operate, which could increase costs or otherwise disrupt operations. In addition, failure to comply with any such applicable laws or regulations could result in substantial fines or revocation of our operating permits and licenses, including in geographic areas where our services have substantial penetration, which could adversely affect our business, financial condition, cash flows and results of operations. Further, if these laws and regulations were to change or if we fail to comply with such laws and regulations as they exist today or in the future, our business, financial condition, cash flows and results of operations could be materially and adversely affected.

The markets in which we participate are highly competitive and many companies, including large technology companies, broadband and security service providers and other managed service providers, are actively targeting the home automation, security monitoring, video monitoring and energy management markets. If we are unable to compete effectively with these companies, our sales and profitability could be adversely affected.

We compete in several markets, including security, video, automation, energy management and wellness solutions. The markets in which we participate are highly competitive and competition may intensify in the future.

Our ability to compete depends on a number of factors, including:

- our platforms and solutions' functionality, performance, ease of use and installation, reliability, availability and cost effectiveness relative to that of our competitors' products;
- our success in utilizing new and proprietary technologies to offer solutions and features previously not available in the marketplace;
- our success in identifying new markets, applications and technologies;
- our ability to attract and retain service provider partners;
- our name recognition and reputation;
- our ability to recruit software engineers and sales and marketing personnel; and
- our ability to protect our intellectual property.

Consumers may prefer to purchase from their existing suppliers rather than a new supplier regardless of product performance or features. In the event a consumer decides to evaluate a new home automation, security monitoring, video monitoring, energy management, or wellness solution, the consumer may be more inclined to select one of our competitors whose product offerings are broader than those that we offer. In addition, while the COVID-19 pandemic continues, consumers may prefer to purchase products that they can install themselves. If there are continuing restrictions on our service providers' ability to meet with residential and commercial property owners in person, our ability to compete will depend on our ability to make our products available for remote installation or to make certain of our products easily installable by consumers rather than solely by our service providers.

Our current competitors include providers of other technology platforms for the connected property with interactive security, including Alula (formed following the merger of ipDatatel, LLC and Resolution Products, LLC), Avigilon Corporation, Brivo Inc., Digital Monitoring Products Inc., Eagle Eye Networks Inc., Honeywell International Inc., Resideo Technologies Inc., SecureNet Technologies, LLC, Telular Corporation (acquired by AMETEK, Inc.), United Technologies Corporation, and Verkada Inc., which sell solutions to service providers, cable operators, technology retailers and other residential and commercial automation providers. We also compete with interactive, monitored security solutions sold directly to subscribers and may also be sold through our partners, including companies like Abode Systems, Inc., Arlo Technologies, Inc., Cove Smart, LLC, Scout Security, Inc. and SimpliSafe, Inc. In addition, our service provider partners compete with security solutions sold directly to subscribers, as well as managed service providers, such as cable television, telephone and broadband companies like AT&T Inc., Comcast Cable Communications, LLC and Rogers Communications, Inc., and providers of point products, including Google Inc.'s Nest Labs, Inc. Amazon.com offers Amazon Home Services security packages with bundled equipment and professional installation, and Amazon Key, a security camera and smart lock integration feature. Ring Inc., owned by Amazon.com, offers a connected video doorbell, video cameras and an integrated security system, Ring Alarm. Samsung's SmartThings offers a security system and a home automation and awareness hub. Arlo Technologies, Inc. and Wyze Labs, Inc. offers connected video cameras, a connected video doorbell, and smart security devices. Apple Inc. offers a feature that allows some manufacturers' connected devices and accessories, including video cameras and doorbells, to be controlled through its HomeKit service available in Apple's iOS operating system. Additionally, Canary and other companies offer all in one video monitoring and awareness devices. In addition, we may compete with other large and small technology companies that offer control capabilities among their products, applications and services, and have ongoing development efforts to address the broader connected home market.

Many of our competitors have longer operating histories, greater name recognition, larger customer bases and significantly greater financial, technical, sales, marketing, distribution and other resources than we have. We expect to encounter new competitors as we enter new markets as well as increased competition, both domestically and internationally, from other established and emerging home automation, security monitoring, video monitoring and automation, wellness, and energy management companies as well as large technology companies. In addition, there may be new technologies that are introduced that reduce demand for our solutions or make them obsolete. Our current and potential competitors may also establish cooperative relationships among themselves or with third parties and rapidly acquire significant market share. Increased

competition could also result in price reductions and loss of market share, any of which could result in lower revenue and negatively affect our ability to grow our business.

Aggressive business tactics by our competitors may reduce our revenue.

Increased competition in the markets in which we compete may result in aggressive business tactics by our competitors, including:

- selling at a discount;
- offering products similar to our platforms and solutions on a bundled basis at no charge;
- announcing competing products combined with extensive marketing efforts;
- providing financing incentives to consumers; and
- asserting intellectual property rights irrespective of the validity of the claims.

Our service provider partners may switch and offer the products and services of competing companies, which would adversely affect our sales and profitability. Competition from other companies may also adversely affect our negotiations with service provider partners and suppliers, including, in some cases, requiring us to lower our prices. Opportunities to take market share using innovative products, services and sales approaches may also attract new entrants to the field. We may not be able to compete successfully with the offerings and sales tactics of other companies, which could result in the loss of service provider partners offering our platforms and solutions and, as a result, our revenue and profitability could be adversely affected.

If we fail to compete successfully against our current and future competitors, or if our current or future competitors employ aggressive business tactics, including those described above, demand for our platforms and solutions could decline, we could experience cancellations of our services to consumers, or we could be required to reduce our prices or increase our expenses.

The proper and efficient functioning of our network operations centers and data back-up systems is central to our solutions.

Our solutions operate with a hosted architecture and we update our solutions regularly while our solutions are operating. If our solutions and/or upgrades fail to operate properly, our solutions could stop functioning for a period of time, which could put our users at risk. Our ability to keep our business operating is highly dependent on the proper and efficient operation of our network operations centers and data back-up systems. Although our network operations centers have back-up computer and power systems, if there is a catastrophic event, natural disaster, terrorist attack, security breach or other extraordinary event, we may be unable to provide our subscribers with uninterrupted monitoring service or may be unable to adequately protect confidential information and data from unauthorized access or loss. Furthermore, because data back-up systems are susceptible to malfunctions and interruptions (including those due to equipment damage, power outages, human error, computer viruses, computer hacking, data corruption and a range of other hardware, software and network problems), we cannot guarantee that we will not experience data back-up failures in the future. A significant or large-scale security breach, malfunction or interruption of our network operations centers or data back-up systems could adversely affect our ability to keep our operations running efficiently or could result in unauthorized access to or loss of data. If such an event results in unauthorized access to or loss of service provider partner, subscriber, employee or other personally identifiable data subject to data privacy and security laws and regulations, then it could result in substantial fines by U.S. federal and state authorities, foreign data privacy authorities in the European Union, or the EU, Canada, and other countries, and/or private claims by companies or individuals. If a malfunction or security breach results in a wider or sustained disruption, it could have a material adverse effect on our reputation, business, financial condition, cash flows or results of operations.

Failure to maintain the security of our information and technology networks, including information relating to our service provider partners, subscribers and employees, could adversely affect us.

We are dependent on information technology networks and systems, including the Internet, to process, transmit and store electronic information and, in the normal course of our business, we collect and retain certain information pertaining to our service provider partners, subscribers and employees, including credit card information for many of our service provider partners and certain of our subscribers. If security breaches in connection with the delivery of our solutions allow unauthorized third parties to access any of this data or obtain control of our subscribers' systems, our reputation, business, financial condition, cash flows and results of operations could be harmed.

The legal, regulatory and contractual environment surrounding information security, privacy and credit card fraud is constantly evolving and companies that collect and retain such information are under increasing attack by cyber-criminals around the world. Further, as the regulatory focus on privacy issues continues to increase and worldwide laws and regulations

concerning the protection of data and personal information expand and become more complex, these potential risks to our business will intensify. A significant actual or potential theft, loss, fraudulent use or misuse of service provider partner, subscriber, employee or other personally identifiable data, whether by third parties or as a result of employee malfeasance or otherwise, non-compliance with our contractual or other legal obligations regarding such data or a violation of our privacy and security policies with respect to such data could result in loss of confidential information, damage to our reputation, early termination of our service provider partner contracts, litigation, regulatory investigations or actions and other liabilities or actions against us, including significant fines by U.S. federal and state authorities, foreign data privacy authorities in the EU, Canada, and other countries and private claims by companies and individuals for violation of data privacy and security regulations. To the extent that any such exposure leads to credit card fraud or identity theft, we may experience a general decline in consumer confidence in our business, which may lead to an increase in attrition rates or may make it more difficult to attract new subscribers. If any one of these risks materializes our business, financial condition, cash flows or results of operations could be materially and adversely affected.

If our security measures are breached, including any breaches caused by cyber-attacks, our reputation may be damaged, we may be exposed to significant liabilities under U.S. and foreign laws, and our business and results of operations may be adversely affected.

Cyber-attacks from computer hackers and cyber criminals and other malicious Internet-based activity continue to increase generally, and perpetrators of cyber-attacks may be able to develop and deploy viruses, worms, ransomware, malware, DNS attacks, wireless network attacks, attacks on our cloud networks, phishing attempts, social engineering attempts, distributed denial of service attacks and other advanced persistent threats or malicious software programs that attack our products and services, our networks and network endpoints or otherwise exploit any security vulnerabilities of our products, services and networks. Techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target. As a result, we may be unable to anticipate these techniques or to implement adequate preventative measures. We cannot be certain that advances in cyber-capabilities or other developments will not compromise or breach the technology protecting the networks that access our platforms and solutions, and we can make no assurance that we will be able to detect, prevent, timely and adequately address or mitigate the negative effects of cyber-attacks or other security breaches. In addition, due to the COVID-19 pandemic, we have enabled substantially all of our employees to work remotely which may make us more vulnerable to cyber-attacks or other security breaches.

Security breaches of, or sustained attacks against, our networks and infrastructure could create system disruptions and shutdowns that could result in disruptions to our operations or unauthorized access to or loss of our data. If such an event results in unauthorized access to or loss of any data subject to data privacy and security laws and regulations, then we could be subject to substantial fines by U.S. federal and state authorities, foreign data privacy authorities in the EU, Canada, and other countries, and private claims by companies or individuals. A system disruption, shutdown, or loss of data may result in adverse publicity and therefore adversely affect the market's perception of the security and reliability of our services. A cyber-attack may cause additional costs, such as investigative and remediation costs, and the costs of providing individuals and/or data owners with notice of the breach, legal fees and the costs of any additional fraud detection activities required by law, a court or a third-party. Additionally, some of our customer contracts require us to indemnify customers from damages they may incur as a result of a breach of our networks and systems. There can be no assurance that the limitation of liability provisions in our contracts for a security breach would be enforceable or would otherwise protect us from any such liabilities or damages with respect to any particular claim. While we maintain general liability insurance coverage and coverage for technology errors or omissions, we cannot assure you that such coverage will be available in sufficient amounts to cover one or more large claims related to a breach, will continue to be available on acceptable terms or at all. If any one of these risks materializes, our business, financial condition, cash flows or results of operations could be materially and adversely affected.

We rely on our service provider partner network to acquire additional subscribers, and the inability of our service provider partners to attract additional subscribers or retain their current subscribers could adversely affect our operating results.

Substantially all of our revenue is generated through the sales of our platforms and solutions by our service provider partners, who incorporate our solutions in certain of the products and packages they sell to their customers, and our service provider partners are responsible for subscriber acquisition, as well as providing customer service and technical support for our platforms and solutions to the subscribers. We provide our service provider partners with specific training and programs to assist them in selling and providing support for our platforms and solutions, but we cannot assure you that these steps will be effective. In addition, we rely on our service provider partners to sell our platforms and solutions into new markets in the intelligent and connected property space. If our service provider partners are unsuccessful in marketing, selling and supporting our platforms and solutions, our operating results could be adversely affected.

In order for us to maintain our current revenue sources and grow our revenues, we must effectively manage and grow relationships with our service provider partners. Recruiting and retaining qualified service provider partners and training them in our technology and solutions requires significant time and resources and has been made more challenging by the shelter-in-place orders and travel restrictions which were, and may from time to time be, implemented in many locations to combat the

COVID-19 pandemic, which orders and restrictions to varying degrees remain in place. If we fail to maintain our relationships with existing service provider partners or develop relationships with new service provider partners, our revenue and operating results would be adversely affected. In addition, to execute on our strategy to expand our sales internationally, we must develop, manage and grow relationships with service provider partners that sell into these markets.

Any of our service provider partners may choose to offer a product from one of our competitors instead of our platforms and solutions, elect to develop their own competing solutions or simply discontinue their operations with us. For example, we entered into a license agreement in November 2013 with Vivint Inc., or Vivint, pursuant to which we granted a license to use the intellectual property associated with our connected home solutions. Under the terms of this arrangement, Vivint has transitioned from selling our solutions directly to its customers to selling its own home automation product to its new customers. We now generate revenue from a monthly fee charged to Vivint on a per customer basis from sales of this service provider partner's product; however, these monthly fees are less on a per customer basis than fees we receive from our SaaS solutions. Therefore, we receive less revenue on a per customer basis from Vivint compared to our SaaS subscriber base, which may result in a lower revenue growth rate. Similarly, we entered into a patent license agreement with ADT pursuant to which we granted a license to use certain Alarm.com intellectual property following the termination or expiration of the initial term of our master service agreement with ADT. Under the terms of the license, beginning in 2023, ADT will pay us a monthly royalty for each subscriber to its branded residential interactive security, automation and video service offerings that is covered by any of our licensed patents and not supported on our platforms. We must also work to expand our network of service provider partners to ensure that we have sufficient geographic coverage and technical expertise to address new markets and technologies. While it is difficult to estimate the total number of available service provider partners in our markets, there are a finite number of service provider partners that are able to perform the types of technical installations required for our platforms and solutions. In the event that we saturate the available service provider pool, or if market or other forces cause the available pool of service providers to decline, it may be increasingly difficult to grow our business. If we are unable to expand our network of service provider partners, our business could be harmed.

As consumers' product and service options grow, it is important that we enhance our service provider partner footprint by broadening the expertise of our service provider partners, working with larger and more sophisticated service provider partners and expanding the mainstream solutions our service provider partners offer. If we do not succeed in this effort, our current and potential future service provider partners may be unable or unwilling to broaden their offerings to include our connected property solutions, resulting in harm to our business.

We receive a substantial portion of our revenue from a limited number of service provider partners, and the loss of, or a significant reduction in, orders from one or more of our major service provider partners would result in decreased revenue and profitability.

Our success is highly dependent upon establishing and maintaining successful relationships with a variety of service provider partners. We market and sell our platforms and solutions through a channel assisted sales model and we derive substantially all of our revenue from these service provider partners. We generally enter into agreements with our service provider partners outlining the terms of our relationship, including service provider pricing commitments, installation, maintenance and support requirements, and our sales registration process for registering potential sales to subscribers. These service provider contracts typically have an initial term of one year, with subsequent renewal terms of one year, and are terminable at the end of the initial term or renewal terms without cause upon written notice to the other party. In some cases, these contracts provide the service provider partner with the right to terminate prior to the expiration of the term without cause upon 30 days written notice, or, in the case of certain termination events, the right to terminate the contract immediately. While we have developed a network of over 10,900 service provider partners to sell, install and support our platforms and solutions, we receive a substantial portion of our revenue from a limited number of channel partners and significant customers. During the years ended December 31, 2021, 2020 and 2019, our 10 largest revenue service provider partners accounted for 47%, 48% and 52% of our revenue, respectively. ADT LLC, or ADT, represented greater than 15% but not more than 20% of our revenue in 2021, 2020 and 2019. ADT also represented more than 10% of accounts receivable as of December 31, 2021.

We amended our master service agreement with ADT, or MSA, to extend the initial term through January 1, 2023 and to provide for the integration of certain third party products into the ADT Command and Control software platform which we operate. In connection with the amendment to the MSA, we agreed to provide ADT a license to use certain Alarm.com intellectual property following the termination or expiration of the initial term of the MSA for which ADT will pay us a monthly royalty for each subscriber to its ADT branded residential interactive security, automation and video service offerings that is covered by any of our licensed patents and not enabled by one of our software platforms. We cannot assure you that we will be able to meet the conditions set forth in the amended agreement. If our MSA with ADT expires or terminates, we would continue to generate revenue from each subscriber that is already installed on one of our platforms for the life of that subscriber account but the number of such subscribers would likely decline over time. While we would generate revenue from ADT subscribers not on our platform using service offerings covered by any of our licensed patents from the per subscriber royalty fee charged to ADT under the patent license, these monthly fees will be less on a per subscriber basis than fees we receive from our SaaS solutions. In addition, even if ADT continues to use other services that we offer, we cannot assure you that the revenue from ADT or new accounts added by ADT will reach or exceed historical levels in any future period. We may not be able to offset any unanticipated

decline in revenue from ADT with revenues from new customers or other existing customers. Any negative developments in ADT's business, or any significant decrease in revenue from or loss of ADT as a customer could materially and adversely harm our business, financial condition, cash flows and results of operations.

We anticipate that we will continue to be dependent upon a limited number of service provider partners for a significant portion of our revenue for the foreseeable future and, in some cases, a portion of our revenue attributable to individual service provider partners may increase in the future. The loss of one or more key service provider partners, a reduction in sales through any major service provider partners or the inability or unwillingness of any of our major service provider partners to pay for our platforms and solutions would reduce our revenue and could impair our profitability.

Substantially all of the revenues associated with the non-hosted software platform are from a single customer and the loss of this customer could harm our operating results.

In March 2017, we acquired certain assets related to the Connect business unit of Icontrol Networks, Inc., or Icontrol, and all of the outstanding equity interests of the two subsidiaries through which Icontrol conducted its Piper business, which we refer to in this report as the Acquisition. Historically, ADT has accounted for, and continues to account for, substantially all of the revenue of the Connect business unit. In connection with the Acquisition we amended our master service agreement with ADT to cover services provided with respect to the non-hosted software platform, or Software platform. We cannot assure you that ADT will use the Software platform for its new customers or keep existing customers on the Software platform. In addition, even if ADT continues to use the Software platform, we cannot assure you that the revenue from ADT or new accounts added by ADT will reach or exceed historical levels of revenue for the Connect business unit in any future period. Any negative developments in ADT's business, or any significant decrease in revenue from or loss of ADT as a customer could materially and adversely harm our business, financial condition, cash flows and results of operations.

We have relatively limited visibility regarding the consumers that ultimately purchase our solutions, and we often rely on information from third-party service providers to help us manage our business. If these service providers fail to provide timely or accurate information, our ability to quickly react to market changes and effectively manage our business may be harmed.

We sell our solutions through service provider partners. These service provider partners work with consumers to design, install, update and maintain their connected home and commercial installations and manage the relationship with our subscribers. While we are able to track orders from service provider partners and have access to certain information about the configurations of their Alarm.com systems that we receive through our platforms, we also rely on service provider partners to provide us with information about consumer behavior, product and system feedback, consumer demographics and buying patterns. We use this channel sell-through data, along with other metrics, to forecast our revenue, assess consumer demand for our solution, develop new solutions, adjust pricing and make other strategic business decisions. Channel sell-through data is subject to limitations due to collection methods and the third-party nature of the data and thus may not be complete or accurate. If we do not receive consumer information on a timely or accurate basis, or if we do not properly interpret this information, our ability to quickly react to market changes and effectively manage our business may be harmed.

Consumers may choose to adopt point products that provide control of discrete functions rather than adopting our connected property solutions. If we are unable to increase market awareness of the benefits of our unified solutions, our revenue may not continue to grow, or it may decline.

Many vendors have emerged, and may continue to emerge, to provide point products with advanced functionality for use in connected properties, such as a video doorbell or thermostat that can be controlled by an application on a smartphone. We expect more and more consumer electronic and consumer appliance products to be network-aware and connected — each very likely to have its own smart device (phone or tablet) application. Consumers may be attracted to the relatively low costs of these point products and the ability to expand their connected property control solution over time with minimal upfront costs, despite some of the disadvantages of this approach, which may reduce demand for our connected property solutions. If so, our service provider partners may switch and offer the point products and services of competing companies, which would adversely affect our sales and profitability. If a significant number of consumers in our target market choose to adopt point products rather than our connected property solutions, then our business, financial condition, cash flows and results of operations will be harmed, and we may not be able to achieve sustained growth or our business may decline.

Mergers or other strategic transactions involving our competitors could weaken our competitive position, which could adversely affect our ability to compete effectively and harm our results of operations.

Our industry is highly fragmented, and we believe it is likely that some of our existing competitors will consolidate or be acquired. In addition, some of our competitors may enter into new alliances with each other or may establish or strengthen cooperative relationships with systems integrators, third-party consulting firms or other parties. Any such consolidation, acquisition, alliance or cooperative relationship could adversely affect our ability to compete effectively and lead to pricing

pressure and our loss of market share and could result in a competitor with greater financial, technical, marketing, service and other resources, all of which could harm our business, financial condition, cash flows and results of operations.

We are dependent on our connected property solutions, and the lack of continued market acceptance of our connected property solutions would result in lower revenue.

Our connected property solutions account for substantially all of our revenue and will continue to do so for the foreseeable future. As a result, our revenue could be reduced by:

- any decline in demand for our connected property solutions;
- the failure of our connected property solutions to achieve continued market acceptance;
- the introduction of products and technologies that serve as a replacement or substitute for, or represent an improvement over, our connected property solutions;
- technological innovations or new communications standards that our connected property solutions do not address; and
- our inability to release enhanced versions of our connected property solutions on a timely basis.

We are vulnerable to fluctuations in demand for Internet-connected devices in general and interactive security systems in particular. If the market for connected home and commercial solutions grows more slowly than anticipated or if demand for connected home and commercial solutions does not grow as quickly as anticipated, whether as a result of competition, product obsolescence, technological change, unfavorable economic conditions, uncertain geopolitical environments, budgetary constraints of our consumers or other factors, we may not be able to continue to increase our revenue and earnings and our stock price would decline.

A significant decline in our SaaS and license revenue renewal rate would have an adverse effect on our business, financial condition, cash flows and results of operations.

We generally bill our service provider partners based on the number of subscribers they have on our platforms and the features being utilized by subscribers on a monthly basis in advance. Subscribers could elect to terminate our services in any given month. If our efforts and our service provider partners' efforts to satisfy our existing subscribers are not successful, we may not be able to retain them or sell additional functionality to them and, as a result, our revenue and ability to grow could be adversely affected. We track our SaaS and license revenue renewal rate on an annualized basis, as reflected in the section of this Annual Report titled "Management's Discussion and Analysis of Financial Condition and Results of Operations — Other Business Metrics — SaaS and License Revenue Renewal Rate." However, our service provider partners, who resell our services to our subscribers, have indicated that they typically have three to five-year service contracts with our subscribers. Our SaaS and license revenue renewal rate is calculated across our entire subscriber base, including subscribers whose contract with their service provider reached the end of its contractual term during the measurement period, as well as subscribers whose contract with their service provider has not reached the end of its contractual term during the measurement period, and is not intended to estimate the rate at which our subscribers renew their contracts with our service provider partners. As a result, we may not be able to accurately predict future trends in renewals and the resulting churn. Subscribers may choose not to renew their contracts for many reasons, including the belief that our service is not required for their needs or is otherwise not cost-effective, a desire to reduce discretionary spending, or a belief that our competitors' services provide better value. Additionally, our subscribers may not renew for reasons entirely out of our control, such as moving a residence or the dissolution of their business, which is particularly common for small to mid-sized businesses. A significant increase in our churn would have an adverse effect on our business, financial condition, cash flows or results of operations.

If we are unable to develop new solutions, sell our platforms and solutions into new markets or further penetrate our existing markets, our revenue may not grow as expected.

Our ability to increase sales will depend, in large part, on our ability to enhance and improve our platforms and solutions, introduce new solutions in a timely manner, sell into new markets and further penetrate our existing markets. The success of any enhancement or new solution or service depends on several factors, including the timely completion, introduction and market acceptance of enhanced or new solutions, the ability to maintain and develop relationships with service providers, the ability to attract, retain and effectively train sales and marketing personnel and the effectiveness of our marketing programs. Any new product or service we develop or acquire may not be introduced in a timely or cost-effective manner, and may not achieve the broad market acceptance necessary to generate significant revenue. Any new markets into which we attempt to sell our platforms and solutions, including new vertical markets and new countries or regions, may not be receptive. Our ability to further penetrate our existing markets depends on the quality, availability and reliability of our platforms and solutions and our ability to design our platforms and solutions to meet consumer demand.

We benefit from integration of our solutions with third-party platform providers. If these developers choose not to partner with us, or are acquired by our competitors, our business and results of operations may be harmed.

Our solutions are incorporated into the hardware of our third-party platform providers. For example, our hardware platform partners produce control devices that deliver our platform services to subscribers. It may be necessary in the future to renegotiate agreements relating to various aspects of these solutions or other third-party solutions. The inability to easily integrate with, or any defects in or disruption in the supply or availability of, any third-party solutions could result in increased costs, or in delays in new product releases or updates to our existing solutions until such issues have been resolved, which could have a material adverse effect on our business, financial condition, cash flows, results of operations and future prospects and could damage our reputation. In addition, if these third-party solution providers choose not to partner with us, choose to integrate their solutions with our competitors' platforms, or are unable or unwilling to update their solutions, our business, financial condition, cash flows and results of operations could be harmed. Further, if third-party solution providers that we partner with or that we would benefit from partnering with are acquired by our competitors, they may choose not to offer their solutions on our platforms, which could adversely affect our business, financial condition, cash flows and results of operations.

We rely on wireless carriers to provide access to wireless networks through which we provide our wireless alarm, notification and intelligent automation services, and any interruption of such access and any significant costs related to such interruption could materially and adversely impact our business, financial condition, cash flows, results of operation and reputation.

We rely on wireless carriers to provide access to wireless networks for machine-to-machine data transmissions, which are an integral part of our services. Our wireless carriers may suspend wireless service to expand, maintain or improve their networks, or may discontinue or sunset older wireless networks as new technology evolves. For example, certain cellular carriers have announced their intention to shut down their 3G and CDMA wireless networks by the end of 2022 which may require our subscribers to upgrade to alternative and potentially more expensive technologies. See "The technology we employ may become obsolete, and we may need to incur significant capital expenditures to update our technology" below. Further, wireless carriers from time to time suffer service outages which range from local to national in scale during which security control panels may be unable to transmit life safety signals to emergency responders. Any such wireless carrier service disruptions could materially and adversely impact our ability to provide services to our service provider partners and subscribers and result in significant costs, which could materially and adversely impact our business, results of operations and reputation. In addition, product changes by wireless carriers, price increases or changes to existing contract terms or termination of our agreements could also have a material and adverse impact on our business, financial condition, cash flows and results of operations.

If we are unable to adapt to technological change, including maintaining compatibility with a wide range of devices, our ability to remain competitive could be impaired.

The market for connected home and commercial solutions is characterized by rapid technological change, frequent introductions of new products and evolving industry standards. Our ability to attract new subscribers and increase revenue from existing subscribers will depend in significant part on our ability to anticipate changes in industry standards, to continue to enhance our existing solutions or introduce new solutions on a timely basis to keep pace with technological developments, and to maintain compatibility with a wide range of connected devices in residential and commercial properties. We may change aspects of our platforms and may utilize open source technology in the future, which may cause difficulties including compatibility, stability and time to market. The success of any enhanced or new product or solution will depend on several factors, including the timely completion and market acceptance of the enhanced or new product or solution. Similarly, if any of our competitors implement new technologies before we are able to implement them, those competitors may be able to provide more effective products than ours, possibly at lower prices. Any delay or failure in the introduction of new or enhanced solutions could harm our business, financial condition, cash flows and results of operations.

The technology we employ may become obsolete, and we may need to incur significant capital expenditures to update our technology.

Our industry is characterized by rapid technological innovation. Our platforms and solutions interact with the hardware and software technology of systems and devices located at our subscribers' properties and we depend upon cellular, broadband and other telecommunications providers to provide communication paths to our subscribers in a timely and efficient manner. We may be required to implement new technologies or adapt existing technologies in response to changing market conditions, consumer preferences or industry standards, which could require significant capital expenditures. The discontinuation of cellular communication technology, cellular networks or other services by telecommunications service providers can affect our services and require our subscribers to upgrade to alternative and potentially more expensive, technologies. For example, certain cellular carriers have announced their intention to shut down their 3G and CDMA wireless networks by the end of 2022. We intend to work with our service providers to develop a transition plan over the next year to convert or upgrade the equipment of end user accounts reliant upon 3G or CDMA networks, and we expect to incur incremental costs over the next year related to the planned 3G and CDMA network shutdown. If our service providers are not able to convert or upgrade the equipment of their customers

who are currently using 3G or CDMA network technology, then those accounts may be terminated with us when such networks are no longer available.

It is also possible that one or more of our competitors could develop a significant technical advantage that allows them to provide additional or superior quality products or services, or to lower their price for similar products or services, which could put us at a competitive disadvantage. Our inability to adapt to changing technologies, market conditions or consumer preferences in a timely manner could materially and adversely affect our business, financial condition, cash flows or results of operations.

We depend on our suppliers. The loss of any key supplier or the inability of a key supplier to deliver their products to us on time or at the contracted price would materially and adversely affect our business, financial condition, cash flows and results of operations.

Our hardware products depend on the availability and quality of components that we procure from third-party suppliers, some of which are supplied by single or limited source suppliers. Reliance on suppliers, as well as industry supply conditions, generally involves several risks, including the possibility of defective parts, which can adversely affect the reliability and reputation of our platforms and solutions, and a shortage of components and reduced control over delivery schedules and increases in component costs, which can adversely affect our profitability. Further, from time to time we provide advance payments or loans to our vendors to, for example, secure procurement of long lead time parts or to provide bridge financing to ensure continuity of operations. These supply chain risks are heightened in the current environment where continuing travel restrictions and shelter-in-place orders as well as limitations on factory capacity, including labor shortages, and delays in shipping times due to the COVID-19 pandemic have and may continue to adversely affect production of and the timing of delivery of components. For example, there is currently a global shortage of semiconductors used in our video, cellular communicator, and other products. Shortages of essential components of our products or significantly increased lead times for obtaining such components may lead to delays in our production, and we may be unable to fulfill orders for our hardware products on a timely basis or at all. Even if we are able to procure components from alternative sources, we may be required to pay more for them, which could adversely affect our profitability. We are working with our suppliers to secure components and materials to account for longer lead times and limited availability, but we cannot assure you that our efforts will be successful or that demand for our hardware products will continue at the same level. In addition, global transportation disruptions have led to slower shipping times generally, while reductions in passenger air travel have also led to reduced capacity and increased costs for air freight shipments, which may continue to adversely affect the timing and cost of delivery of components, materials and products. Any of these disruptions to our inventory and supply chain could have a material adverse effect on our business, financial condition, cash flows and results of operations. We have several large hardware suppliers from which we procure hardware on a purchase order basis, including three key suppliers that supplied products and components of our inventory which collectively represented over 50% of our hardware and other revenue for the year ended December 31, 2021 (20%, 18% and 15% of hardware and other revenue, respectively). The failure of any of these key suppliers or their subcomponent suppliers to deliver product on time or at the contracted price would materially and adversely affect our business, financial condition, cash flows and results of operations. For example, on February 21, 2022, we were notified of a likely parts shortage of a critical semiconductor subcomponent that impacts products manufactured by our largest key hardware supplier in 2021 and another smaller vendor. We are working with the impacted suppliers and their subcomponent provider to determine the amount and timing of any shortfall and to mitigate risks in this part of our supply chain, but we may not be successful. If our suppliers are unable to continue to provide agreed upon supply, we could experience interruptions in delivery of our platforms and solutions to our service provider partners, which could have a material adverse effect on our business, financial condition, cash flows and results of operations. If we were required to find alternative sources of supply, qualification of alternative suppliers and the establishment of reliable supplies could result in delays, loss of sales and/or less profitable sales, any of which could have a material adverse effect on our business, financial condition, cash flows and results of operations.

Growth of our business will depend on market awareness and a strong brand, and any failure to develop, maintain, protect and enhance our brand would hurt our ability to retain or attract subscribers.

We believe that building and maintaining market awareness, brand recognition and goodwill in a cost-effective manner is important to our overall success in achieving widespread acceptance of our existing and future solutions and is an important element in attracting new service provider partners and subscribers. An important part of our business strategy is to increase service provider and consumer awareness of our brand and to provide marketing leadership, services and support to our service provider partner network. This will depend largely on our ability to continue to provide high-quality solutions, and we may not be able to do so effectively. While we may choose to engage in a broader marketing campaign to further promote our brand, this effort may not be successful. Our efforts in developing our brand may be hindered by the marketing efforts of our competitors and our reliance on our service provider partners and strategic partners to promote our brand. If we are unable to cost-effectively maintain and increase awareness of our brand, our business, financial condition, cash flows and results of operations could be harmed.

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

The market for solutions that bring objects and systems not typically connected to the Internet, such as home automation, security monitoring, video monitoring, energy management and wellness solutions, into an Internet-like structure is still developing, and it is uncertain how rapidly or how consistently this market will continue to develop and the degree to which our platforms and solutions will be accepted into the markets in which we operate. Some consumers may be reluctant or unwilling to use our platforms and solutions for a number of reasons, including satisfaction with traditional solutions, concerns about additional costs, concerns about data privacy and lack of awareness of the benefits of our platforms and solutions. Our ability to expand the sales of our platforms and solutions into new markets depends on several factors, including the awareness of our platforms and solutions, the timely completion, introduction and market acceptance of our platforms and solutions, the ability to attract, retain and effectively train sales and marketing personnel, the ability to develop relationships with service providers, the effectiveness of our marketing programs, the costs of our platforms and solutions and the success of our competitors. If we are unsuccessful in developing and marketing our platforms and solutions into new markets, or if consumers do not perceive or value the benefits of our platforms and solutions, the market for our platforms and solutions might not continue to develop or might develop more slowly than we expect, either of which would harm our revenue and growth prospects.

Risks of liability from our operations are significant.

The nature of the solutions we provide, including our interactive security solutions, and new technologies we may acquire, such as in our acquisition of Shooter Detection Systems, LLC, potentially exposes us to greater risks of liability for data privacy and security, employee acts or omissions, or technology or system failure than may be inherent in other businesses. Substantially all of our service provider partner agreements contain provisions limiting our liability to service provider partners and our subscribers in an attempt to reduce this risk. However, in the event of litigation with respect to these matters, we cannot assure you that these limitations will be enforced, and the costs of such litigation could have a material adverse effect on us. Moreover, in the event of any regulatory investigations or actions against us related to these matters, we could be subject to additional risks and liabilities, including significant fines by U.S. federal and state authorities, foreign data privacy authorities in the EU, Canada, and other countries, in addition to the costs of such investigations, all of which could have a material adverse effect on us. In addition, there can be no assurance that we are adequately insured for these risks. Certain of our insurance policies and the laws of some states may limit or prohibit insurance coverage for punitive or certain other types of damages or liability arising from gross negligence.

Our strategy includes pursuing acquisitions, and our potential inability to successfully integrate newly-acquired technologies, assets or businesses may harm our financial results. Future acquisitions of technologies, assets or businesses which are paid for partially or entirely through the issuance of stock or stock rights could dilute the ownership of our existing stockholders.

We believe part of our growth will continue to be driven by acquisitions of other companies or their technologies, assets and businesses. For example, on October 21, 2019, we acquired 85% of the issued and outstanding shares of capital stock of PC Open Incorporated, doing business as OpenEye, and on December 14, 2020, we acquired Shooter Detection Systems, LLC. Additionally, on December 16, 2021, our EnergyHub subsidiary acquired certain assets of an unrelated third party. Substantially all of the acquired assets consisted of developed technology. We have also acquired other businesses in the past. For example, we acquired the assets of HiValley Technology Inc. in March 2015, assets of ObjectVideo, Inc. in January 2017 and Icontrol's Connect and Piper business units in March 2017. These acquisitions and any other acquisitions we may complete in the future will give rise to certain risks, including:

- incurring higher than anticipated capital expenditures and operating expenses;
- failing to assimilate and integrate the operations and personnel or failing to retain the key personnel of the acquired company or business;
- failing to retain customers and service providers and other third-party business partners seeking to terminate or renegotiate their relationships with us;
- failing to integrate the acquired technologies, or incurring significant expense to integrate acquired technologies into our platforms and solutions;
- disrupting our ongoing business;
- encountering complexities associated with managing a larger, more complex and growing business;

- diverting our management's attention and other company resources;
- failing to maintain uniform standards, controls and policies;
- incurring significant accounting charges;
- impairing relationships with employees, service provider partners or subscribers;
- finding that the acquired technology, asset or business does not further our business strategy, that we overpaid for the technology, asset or business or that we may be required to write off acquired assets or investments partially or entirely;
- failing to realize the expected synergies of the transaction;
- being exposed to unforeseen liabilities and contingencies that were not identified prior to acquiring the company; and
- being unable to generate sufficient revenue and profits from acquisitions to offset the associated acquisition costs.

Fully integrating an acquired technology, asset or business into our operations may take a significant amount of time. We may not be successful in overcoming these risks or any other problems encountered with acquisitions. To the extent we do not successfully avoid or overcome the risks or problems related to any such acquisitions, or fail to manage the acquired business or execute our integration and growth strategy in an efficient and effective manner, our business, financial condition, cash flows and results of operations could be harmed. Acquisitions also could impact our financial position and capital requirements, or could cause fluctuations in our quarterly and annual results of operations. Acquisitions could include significant goodwill and intangible assets, which may result in future impairment charges that would reduce our stated earnings. We may incur significant costs in our efforts to engage in strategic transactions and these expenditures may not result in successful acquisitions.

We expect that the consideration we might pay for any future acquisitions of technologies, assets or businesses could include stock, rights to purchase stock, cash or some combination of the foregoing. If we issue stock or rights to purchase stock in connection with future acquisitions, net income per share and then-existing holders of our common stock may experience dilution.

We may pursue business opportunities that diverge from our current business model, which may cause our business to suffer.

We may pursue business opportunities that diverge from our current business model, including but not limited to expanding our platforms and solutions and investing in new and unproven technologies. We can offer no assurance that any such new business opportunities will prove to be successful. Among other negative effects, our pursuit of such business opportunities could reduce operating margins and require more working capital, subject us to additional federal, state, and local laws and regulations, materially and adversely affect our business, financial condition, cash flows or results of operations.

Evolving government and industry regulation and changes in applicable laws relating to the Internet and data privacy may increase our expenditures related to compliance efforts or otherwise limit the solutions we can offer, which may harm our business and adversely affect our financial condition.

As Internet commerce continues to evolve, federal, state or foreign agencies have adopted and could in the future adopt regulations covering issues such as user privacy and content. We are particularly sensitive to these risks because the Internet is a critical component of our SaaS business model. In addition, taxation of products or services provided over the Internet or other charges imposed by government agencies or by private organizations for accessing the Internet may be imposed. Any regulation imposing greater fees for Internet use or restricting information exchange over the Internet could result in a decline in the use of the Internet and the viability of Internet-based services, which could harm our business.

Our platforms and solutions enable us to collect, manage and store a wide range of data related to our subscribers' interactive security, intelligent automation, video monitoring, energy management and wellness systems. A valuable component of our platforms and solutions is our ability to analyze this data to present the user with actionable business intelligence. We obtain our data from a variety of sources, including our service provider partners, our subscribers and third-party providers. We cannot assure you that the data we require for our proprietary data sets will be available from these sources in the future or that the cost of such data will not increase. The United States federal government and various state governments have adopted or proposed limitations on the collection, distribution, storage and use of personal information. Several foreign jurisdictions, including the European Union and the United Kingdom, have adopted legislation (including directives or regulations) that is more rigorous governing data collection and storage than in the United States.

On June 28, 2018, the State of California enacted the California Consumer Privacy Act of 2018, or CCPA, which took effect on January 1, 2020. The CCPA governs the collection, sale and use of California residents' personal information, and

significantly impacts businesses' handling of personal information and privacy policies and procedures. The CCPA, as well as data privacy laws that have been adopted or proposed in other states, may limit our ability to use, process and store certain data, which may decrease adoption of our platforms and solutions, affect our relationships with service provider partners and our suppliers, increase our costs for compliance, and harm our business, financial condition, cash flows and results of operations. Specifically, the CCPA may subject us to regulatory fines by the State of California, individual claims, class actions, and increased commercial liabilities. In addition, the California Privacy Rights Act of 2020, or CPRA, was approved by California voters and will be effective as of January 1, 2023. The CPRA will, among other things, amend the CCPA by creating additional privacy rights for California consumers and additional obligations on businesses, which could subject us to additional compliance costs as well as potential fines, individual claims, class actions and commercial liabilities.

European data protection laws, including the General Data Protection Regulation, or GDPR, generally restrict the transfer of personal data from Europe, including the European Economic Area, or EEA, UK and Switzerland, to the United States and most other countries unless the parties to the transfer have implemented specific safeguards to protect the transferred personal data. On July 16, 2020, the Court of Justice of the European Union, or CJEU, invalidated the EU-U.S. Privacy Shield framework, a program for transferring personal data from the EEA to the United States. The ruling also raised questions about whether one of the primary alternatives to the EU-U.S. Privacy Shield, namely the European Commission's Standard Contractual Clauses, or SCCs, can lawfully be used for transfers from the EEA to the United States or most other countries. While the CJEU did not invalidate the use of SCCs as a valid mechanism for transferring personal data from the EEA to the United States, the CJEU required entities relying on SCCs to, among other things, verify on a case-by-case basis that the SCCs provide adequate protection of personal data under European Union, or EU, law by providing, where necessary, additional safeguards to those offered by the existing SCCs. For data transfers to the United States, these additional safeguards must be added to the SCCs in order for entities to use SCCs as a valid data transfer mechanism. Furthermore, the CJEU and the European Data Protection Board advised European data protection authorities that they would need to closely examine the laws and practices of countries outside of the EEA where EEA personal data is transferred, with a particular focus on the United States, so data transfers to the United States from the EEA are subject to increasing regulatory scrutiny following the CJEU decision.

We have historically relied on both the EU-U.S. Privacy Shield and SCCs for transferring personal data from the EEA, and as a result of the CJEU ruling, we have transitioned our data transfers covered under the EU-U.S. Privacy Shield to be covered under SCCs. In June 2021, the European Commission adopted a new version of the SCCs, which we began using on September 27, 2021. We have until December 27, 2022 to implement the new SCCs with all of our EEA customers and vendors who are sub-processors and receive access to personal data from our EEA customers. Moreover, the UK data protection regulator is developing new SCCs for transferring personal data from the UK that are expected to be finalized in March 2022. When the new UK-specific SCCs are finalized, we will be required to execute the new UK SCCs with our current and future customers in the UK.

Our transition from relying on the EU-U.S. Privacy Shield to adopting, implementing and complying with the new SCCs may slow down our contracting process and increase our legal and compliance costs (including an increase in exposure to substantial fines under EEA data protection laws as well as injunctions against processing or transferring personal data from the EEA), which could adversely affect our cash flows and financial condition. SCCs with additional safeguards and obligations put in place by EEA data protection authorities or customers may impose new restrictions on our business and could affect our operations in the EEA.

In September 2020, the Swiss Federal Data Protection and Information Commissioner, or FDPIC, determined that the Swiss-U.S. Privacy Shield Framework does not provide an adequate level of data protection for data transfers from Switzerland to the U.S. While the FDPIC does not have the authority to invalidate the Swiss-U.S. Privacy Shield, the FDPIC's announcement casts serious doubt on the viability of the Swiss-U.S. Privacy Shield as a valid mechanism for Swiss-U.S. data transfers. As a result of the FDPIC decision, we will need to transition any data transfers covered under the Swiss-U.S. Privacy Shield to be covered under SCCs, and the FDPIC will likely require us to adopt the new SCCs, as the FDPIC formally recognized the new SCCs adopted by the European Commission in August 2021.

As a result of these ongoing changes, there will continue to be significant regulatory uncertainty surrounding the validity of data transfers from the EEA, UK and Switzerland to the United States. The inability to import personal data from the EEA, UK or Switzerland may require us to increase our data processing capabilities in those jurisdictions at significant expense. Various other non-EU jurisdictions may also choose to impose data localization laws limiting the transfer of personal data out of their respective jurisdictions, or our EEA, UK or Swiss service provider partners may require similar contractual restrictions regarding data localization. Such laws or contractual restrictions may increase our costs for compliance, and harm our business, financial condition, cash flows and results of operations.

The EU's General Data Protection Regulation, or GDPR, went into effect on May 25, 2018. Prior to May 25, 2018, we updated our existing privacy and data security measures to comply with GDPR. As guidance on compliance with GDPR from the EU data protection authorities evolves over time, our privacy or data security measures may be deemed or perceived to be in noncompliance with current or future laws and regulations, which may subject us to litigation, regulatory investigations or other liabilities and could limit the products and services we can offer in certain jurisdictions. Further, in the event of a breach of

personal information that we hold, we may be subject to governmental fines, individual claims, remediation expenses and/or harm to our reputation. Moreover, if future laws, regulations, or court rulings, such as the CJEU's decision invalidating the EU-U.S. Privacy Shield, limit our ability to use and share this data or our ability to store, process and share data over the Internet, demand for our platforms and solutions could decrease, our costs could increase, and our business, financial condition, cash flows and results of operations could be harmed.

Furthermore, Brazil's comprehensive privacy law, the General Data Protection Law, or LGPD, took effect on September 18, 2020 and federal regulatory enforcement began on August 1, 2021. However, private and state-level enforcement of the law began in September 2020. The LGPD creates a new legal framework for the use, processing and storage of Brazilians' personal data, and it adds significant privacy and security obligations for companies processing personal data in Brazil. The LGPD may limit our and our service providers' ability to use, process and store certain data, which may decrease adoption of our platforms and solutions, affect our relationships with our service provider partners and suppliers, increase our costs for compliance, and harm our business, financial condition, cash flows and results of operations. In addition, the LGPD may subject us to regulatory fines by the Brazilian Data Protection Authority and increased commercial liabilities.

Since April 2018 we have offered a solution for certain service provider partners who may be subject to the Health Insurance Portability and Accountability Act of 1996, and its implementing regulations, or HIPAA, which regulates the use and disclosure of Protected Health Information, or PHI. As a result, we are subject to HIPAA when PHI is accessed, created, maintained or transmitted through our solution by these service provider partners. We have implemented additional privacy and security policies and procedures, as well as administrative, physical and technical safeguards to enable our solution to be HIPAA-compliant. Additionally, HIPAA compliance has required us to put in place certain agreements with contracting partners and to appoint a Privacy Officer and Security Officer. If our privacy and security policies or other safeguards for PHI are deemed to be in noncompliance by the United States Department of Health and Human Services, or HHS, we may be subject to litigation, regulatory investigations or other liabilities. In the event of a breach of PHI that we hold, we may be subject to governmental fines, individual claims under state privacy laws governing personal health information, remediation expenses and/or harm to our reputation. Furthermore, if future changes to HIPAA or state privacy laws governing PHI expand the definition of PHI or put more restrictions on our ability to use, process and store PHI, then HIPAA compliance for our solutions as currently constituted may be costly both financially and in terms of administrative resources. Ongoing compliance efforts may take substantial time and require the assistance of external resources, such as attorneys, information technology, and/or other consultants and advisors.

We rely on the performance of our senior management and highly skilled personnel, and if we are unable to attract, retain and motivate well-qualified employees, our business and results of operations could be harmed.

We believe our success has depended, and continues to depend, on the efforts and talents of senior management and key personnel, including Stephen Trundle, our Chief Executive Officer, and our senior information technology managers. Our future success depends on our continuing ability to attract, develop, motivate and retain highly qualified and skilled employees. Qualified individuals are in high demand, and we may incur significant costs to attract them. In addition, the loss of any of our senior management or key personnel, including as a result of the COVID-19 pandemic, could interrupt our ability to execute our business plan, as such individuals may be difficult to replace. If we do not succeed in attracting well-qualified employees or retaining and motivating existing employees, our business and results of operations could be harmed.

We provide minimum service level commitments to certain of our service provider partners, and our failure to meet them could cause us to issue credits for future services or pay penalties, which could harm our results of operations.

Certain of our service provider partner agreements currently, and may in the future, provide minimum service level commitments regarding items such as uptime, functionality or performance. If we are unable to meet the stated service level commitments for these service provider partners or suffer extended periods of service unavailability, we are or may be contractually obligated to provide these service provider partners with credits for future services, provide services at no cost or pay other penalties, which could adversely impact our revenue. We have incurred such penalties in the past, which have reduced our revenue. We do not currently have any reserves on our balance sheet for these commitments.

We have indemnity obligations to certain of our service provider partners for certain expenses and liabilities, which could force us to incur substantial costs.

We have indemnity obligations to certain of our service provider partners for certain claims regarding our platforms and solutions, including security breach, product recall, epidemic failure, and product liability claims. As a result, in the case of any such claims against these service provider partners, we could be required to indemnify them for losses resulting from such claims or to refund amounts they have paid to us. We expect that some of our service provider partners may seek indemnification from us in the event that such claims are brought against them. In addition, we may elect to indemnify service provider partners where we have no contractual obligation to do so and we will evaluate each such request on a case-by-case basis. If a service provider partner elects to invest resources in enforcing a claim for indemnification against us, we could incur significant costs disputing it. If we do not succeed in disputing it, we could face substantial liability. See "We have indemnity obligations to certain of our service provider partners for certain expenses and liabilities resulting from intellectual property infringement claims regarding our platforms and solutions, which could force us to incur substantial costs" below for details on indemnity obligations resulting from intellectual property.

The incurrence or issuance of debt may impact our financial position and subject us to additional financial and operating restrictions.

On October 6, 2017, we entered into a \$125.0 million senior secured revolving credit facility, or the 2017 Facility, with Silicon Valley Bank, or SVB, as administrative agent, PNC Bank, National Association, as documentation agent, and a syndicate of lenders. Upon entry into the 2017 Facility, we borrowed \$72.0 million, which was used to repay the previously outstanding balance under our previous credit facility. On November 30, 2018, we amended the 2017 Facility to incorporate the parameters that must be met for us to repurchase our outstanding common stock under the stock repurchase program authorized by our board of directors on November 29, 2018. On January 20, 2021, we issued \$500.0 million aggregate principal amount of 0% convertible senior notes due January 15, 2026 in a private placement to qualified institutional buyers, or the 2026 Notes. We received proceeds from the issuance of the 2026 Notes of \$484.3 million, net of \$15.7 million of transaction fees and other debt issuance costs. We used some of the proceeds to repay the \$110.0 million outstanding principal balance under our 2017 Facility and also used some of the proceeds to pay accrued interest, fees and expenses related to the 2017 Facility. We terminated the 2017 Facility effective January 20, 2021. We intend to invest a portion of the proceeds in a portfolio of securities and other investments and although we plan to follow an established investment policy and seek to minimize the credit risk associated with investments by limiting exposure to any one issuer depending on credit quality, we cannot give assurances that the assets in our investment portfolio will not lose value, become impaired or suffer from illiquidity.

Our overall leverage and certain obligations contained in the related documentation could adversely affect our financial health and business and future operations by, among other things:

- making it more difficult to satisfy our obligations, including under the terms of the 2026 Notes;
- limiting our ability to refinance our debt on terms acceptable to us or at all;
- limiting our flexibility to plan for and adjust to changing business and market conditions and increasing our vulnerability to general adverse economic and industry conditions;
- limiting our ability to use our available cash flow to fund future acquisitions, working capital, business activities, and other general corporate requirements; and
- limiting our ability to obtain additional financing for working capital, to fund growth or for general corporate purposes, even when necessary to maintain adequate liquidity.

Any of the foregoing could have a material adverse effect on our business, financial condition, cash flows or results of operations.

We may not be able to secure additional financing on favorable terms, or at all, to meet our future capital needs.

In the future, we may require additional capital to respond to business opportunities, challenges, acquisitions or unforeseen circumstances and may determine to engage in equity or debt financings or enter into credit facilities for other reasons. For example, on January 20, 2021, we issued the 2026 Notes. We received proceeds from the issuance of the 2026 Notes of \$484.3 million, net of \$15.7 million of transaction fees and other debt issuance costs. We may require additional capital to respond to the significant uncertainty arising from the COVID-19 pandemic and we may not be able to timely secure additional debt or equity financing on favorable terms or at all. Any debt financing obtained by us in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. If we raise additional funds through further issuances of equity, convertible debt securities or other securities convertible into equity, our existing stockholders could suffer significant dilution in their percentage ownership of our company, and any new equity securities we issue could have rights, preferences and privileges senior to those of holders of our common stock. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to continue to grow or support our business and to respond to business challenges could be limited. See "Risks Related to our Outstanding Convertible Senior Notes" below for further details on risks related to the 2026 Notes.

Goodwill and other identifiable intangible assets represent a significant portion of our total assets, and we may never realize the full value of our intangible assets.

As of December 31, 2021, we had \$204.3 million of goodwill and identifiable intangible assets. Goodwill and other identifiable intangible assets are recorded at fair value on the date of acquisition. We review such assets for impairment at least annually. Impairment may result from, among other things, deterioration in performance, adverse market conditions, including adverse market conditions arising from the COVID-19 pandemic, adverse changes in applicable laws or regulations, including changes that restrict the activities of or affect the solutions we offer, challenges to the validity of certain registered intellectual property, reduced sales of certain products or services incorporating registered intellectual property, increased attrition and a variety of other factors. The amount of any quantified impairment must be expensed immediately as a charge to results of operations. Depending on future circumstances, it is possible that we may never realize the full value of our intangible assets. Any future determination of impairment of goodwill or other identifiable intangible assets could have a material adverse effect on our financial position and results of operations.

Comprehensive tax reform bills could adversely affect our business and financial condition.

Proposed legislative changes in the U.S. and other countries could increase our tax liability and adversely affect our after-tax profitability. For example, the House of Representatives has introduced legislation proposing an increase to the U.S. corporate tax rate from 21% to 26.5% in addition to other changes in U.S. tax law that would increase our U.S. tax burden. Additionally, the Biden Administration has introduced proposals to increase U.S. taxation of our international business operations by reducing the deduction for Foreign-Derived Intangible Income, or FDII. As these proposals have not yet been passed by Congress and enacted into law, we have not yet determined the impact on our effective tax rate, though we continue to monitor the progression of these, and other, tax proposals. Current economic and political considerations make tax rules in the United States and other applicable jurisdictions subject to significant change, and changes in applicable tax laws and regulations, or their interpretation and application, including the possibility of retroactive effect, could affect our income tax expense and profitability.

The Group of Seven countries has proposed a global minimum tax of 15%, which is supported by leadership within the U.S. government and anticipated to become effective in 2023. Additionally, there is a continued interest within the European Union, Canada and other jurisdictions to apply new taxes on companies participating in the digital economy. Such tax rule changes could materially and adversely affect our cash flows, deferred tax assets and financial results.

We may be subject to additional tax liabilities, which would harm our results of operations.

We are subject to income, sales, use, value added and other taxes in the United States and other countries in which we conduct business, which laws and rates vary greatly by jurisdiction. Certain jurisdictions in which we do not collect sales, use, value added or other taxes on our sales may assert that such taxes are applicable, which could result in tax assessments, penalties and interest, and we may be required to collect such taxes in the future. Additionally, longstanding international tax norms that determine each country's jurisdiction to tax cross-border international trade are subject to potential evolution. An outgrowth of the original Base Erosion and Profit Shifting project is a project undertaken by the more than 130 member countries of the expanded Organization for Economic Cooperation and Development Inclusive Framework focused on "Addressing the Challenges of the Digitalization of the Economy." The breadth of this project is likely to impact all multinational businesses by potentially redefining jurisdictional taxation rights. Significant judgment is required in determining our worldwide provision for income taxes. These determinations are highly complex and require detailed analysis of the available information and applicable statutes and regulatory materials. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be different from our historical tax practices, provisions and accruals. If we receive an adverse ruling as a result of an audit, or we unilaterally determine that we have misinterpreted provisions of the tax regulations to

which we are subject, our tax provision, results of operations or cash flows could be harmed. In addition, liabilities associated with taxes are often subject to an extended or indefinite statute of limitations period. Therefore, we may be subject to additional tax liability (including penalties and interest) for a particular year for extended periods of time.

If the U.S. insurance industry were to change its practice of providing incentives to homeowners for the use of alarm monitoring services, we could experience a reduction in new subscriber growth or an increase in our subscriber attrition rate.

It has been common practice in the U.S. insurance industry to provide a reduction in rates for policies written on residences that have monitored alarm systems. There can be no assurance that insurance companies will continue to offer these rate reductions. If these incentives were reduced or eliminated, new homeowners who otherwise may not feel the need for alarm monitoring services would be removed from our potential subscriber pool, which could hinder the growth of our business, and existing subscribers may choose to disconnect or not renew their service contracts, which could increase our attrition rates. In either case, our results of operations and growth prospects could be adversely affected.

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

We conduct our business in the United States and in various other countries. We are subject to regulation by various federal, state, local and foreign governmental agencies, including, but not limited to, agencies and regulatory bodies or authorities responsible for monitoring and enforcing product safety and consumer protection laws, data privacy and security laws and regulations, employment and labor laws, workplace safety laws and regulations, environmental laws and regulations, antitrust laws, federal securities laws and tax laws and regulations.

We are subject to the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. Travel Act, and possibly other anti-bribery laws, including those that comply with the Organization for Economic Cooperation and Development, or OECD, Convention on Combating Bribery of Foreign Public Officials in International Business Transactions and other international conventions. Anti-corruption laws are interpreted broadly and prohibit our company from authorizing, offering, or providing directly or indirectly improper payments or benefits to recipients in the public or private-sector. Certain laws also prohibit us from soliciting or accepting bribes or kickbacks. Our company has direct government interactions and in several cases uses third-party representatives, including dealers, for regulatory compliance, sales and other purposes in a variety of countries. These factors increase our anti-corruption risk profile. We can be held liable for the corrupt activities of our employees, representatives, contractors, partners and agents, even if we did not explicitly authorize such activity. Although we have implemented policies and procedures designed to ensure compliance with anti-corruption laws, there can be no assurance that all of our employees, representatives, contractors, partners, and agents will comply with these laws and policies.

Our global operations require us to import from and export to several countries, which geographically stretches our compliance obligations. We are also subject to anti-money laundering laws such as the USA PATRIOT Act and may be subject to similar laws in other jurisdictions. Our platforms and solutions are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, and various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls. Exports of our platforms and solutions must be made in compliance with these laws and regulations. We may also be subject to import/export laws and regulations in other jurisdictions in which we conduct business. If we fail to comply with these laws and regulations, we and certain of our employees could be subject to substantial civil or criminal penalties, including the possible loss of export or import privileges; fines, which may be imposed on us and responsible employees or managers; and, in extreme cases, the incarceration of responsible employees or managers. In addition, if our service provider partners fail to obtain appropriate import, export or re-export licenses or authorizations, we may also be adversely affected through reputational harm and penalties. Obtaining the necessary authorizations, including any required license, for a particular sale may be time-consuming, is not guaranteed and may result in the delay or loss of sales opportunities. In addition, changes in our platforms or solutions or changes in applicable export or import laws and regulations may create delays in the introduction and sale of our platforms and solutions in international markets, prevent our service provider partners with international operations from deploying our platforms and solutions or, in some cases, prevent the export or import of our platforms and solutions to certain countries, governments or persons altogether. Any change in export or import laws and regulations, shift in the enforcement or scope of existing laws and regulations, or change in the countries, governments, persons or technologies targeted by such laws and regulations, could also result in decreased use of our platforms and solutions, or in our decreased ability to export or sell our platforms and solutions to existing or potential service provider partners with international operations. Any decreased use of our platforms and solutions or limitation on our ability to export or sell our platforms and solutions would likely adversely affect our business, financial condition, cash flows and results of operations.

In addition, our software contains encryption technologies, certain types of which are subject to U.S. and foreign export control regulations and, in some foreign countries, restrictions on importation and/or use. Any failure on our part to comply with encryption or other applicable export control requirements could result in financial penalties or other sanctions under the U.S. export regulations, including restrictions on future export activities, which could harm our business and operating results.

Regulatory restrictions could impair our access to technologies needed to improve our platforms and solutions and may also limit or reduce the demand for our platforms and solutions outside of the United States.

Furthermore, U.S. export control laws and economic sanctions programs prohibit the shipment of certain products and services to countries, governments and persons that are subject to U.S. economic embargoes and trade sanctions. Even though we take precautions to prevent our platforms and solutions from being shipped or provided to U.S. sanctions targets, our platforms and solutions could be shipped to those targets or provided by third-parties despite such precautions. Any such shipment could have negative consequences, including government investigations, penalties and reputational harm. Furthermore, any new embargo or sanctions program, or any change in the countries, governments, persons or activities targeted by such programs, could result in decreased use of our platforms and solutions, or in our decreased ability to export or sell our platforms and solutions to existing or potential service provider partners, which would likely adversely affect our business, financial condition, cash flows and results of operations.

Changes in laws that apply to us could result in increased regulatory requirements and compliance costs which could harm our business, financial condition, cash flows and results of operations. In certain jurisdictions, regulatory requirements may be more stringent than in the United States. Noncompliance with applicable regulations or requirements could subject us to whistleblower complaints, investigations, sanctions, settlements, mandatory product recalls, enforcement actions, disgorgement of profits, fines, damages, civil and criminal penalties or injunctions, suspension or debarment from contracting with certain governments or other customers, the loss of export privileges, multi-jurisdictional liability, reputational harm, and other collateral consequences. If any governmental or other sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, financial condition, cash flows and results of operations could be materially harmed. In addition, responding to any action will likely result in a materially significant diversion of management's attention and resources and an increase in defense costs and other professional fees. Enforcement actions and sanctions could further harm our business, financial condition, cash flows and results of operations.

We face many risks associated with our international business operations and our plans to expand internationally, which could harm our business, financial condition, cash flows and results of operations.

We anticipate that our efforts to operate and continue to expand our business internationally will entail additional costs and risks as we establish our international offerings and develop relationships with service provider partners to market, sell, install, and support our platforms, solutions and brand in other countries. Revenue in countries outside of North America accounted for 3% of our total revenue for each of the years ended December 31, 2021, 2020 and 2019. We have limited experience in selling our platforms and solutions in international markets outside of North America or in conforming to the local cultures, standards, or policies necessary to successfully compete in those markets, and we may be required to invest significant resources in order to do so. We may not succeed in these efforts or achieve our consumer acquisition, service provider expansion or other goals. In some international markets, consumer preferences and buying behaviors may be different, and we may use business or pricing models that are different from our traditional model to provide our platforms and solutions to consumers in those markets or we may be unsuccessful in implementing the appropriate business model. Our revenue from new foreign markets may not exceed the costs of establishing, marketing, and maintaining our international offerings. In addition, current global instability could have many adverse consequences on our international expansion. These could include sovereign default, liquidity and capital pressures on financial institutions in other parts of the world including the eurozone, reducing the availability of credit and increasing the risk of financial sector failures and the risk of one or more eurozone member states leaving the euro, resulting in the possibility of capital and exchange controls and uncertainty about the impact of contracts and currency exchange rates.

In addition, conducting expanded international operations subjects us to additional risks that we do not generally face in our North American markets. These risks include:

- localization of our solutions, including the addition of foreign languages and adaptation to new local practices, as well as certification, registration and other regulatory requirements;
- lack of experience in other geographic markets;
- strong local competitors;
- the cost and burden of complying with, lack of familiarity with, and unexpected changes in, foreign legal and regulatory requirements, including the development of policies and procedures for different countries when requirements under privacy regulations in such countries may conflict or be inconsistent with one another;
- difficulties in managing and staffing international operations;
- increased costs due to new or potential tariffs, penalties, trade restrictions and other trade barriers, which may increase our cost of hardware revenue and reduce our hardware revenue margins in the future;

- fluctuations in currency exchange rates or restrictions on foreign currency;
- potentially adverse tax consequences, including the complexities of transfer pricing, value added or other tax systems, double taxation and restrictions and/or taxes on the repatriation of earnings;
- dependence on third parties, including commercial partners with whom we do not have extensive experience;
- increased financial accounting and reporting burdens and complexities;
- political, social, and economic instability, terrorist attacks, and security concerns in general; and
- reduced or varied protection for intellectual property rights in some countries.

Operating in international markets also requires significant management attention and financial resources. The investment and additional resources required to establish operations and manage growth in other countries may not produce desired levels of revenue or profitability.

Our software contains encryption technologies, certain types of which are subject to U.S. and foreign export control regulations and, in some foreign countries, restrictions on importation and/or use. Any failure on our part to comply with encryption or other applicable export control requirements could result in financial penalties or other sanctions under the U.S. export regulations, including restrictions on future export activities, which could harm our business and operating results. Regulatory restrictions could impair our access to technologies needed to improve our platforms and solutions and may also limit or reduce the demand for our platforms and solutions outside of the United States.

Enhanced United States tax, tariff, import/export restrictions, or other trade barriers may have an adverse impact on global economic conditions, financial markets and our business.

There is currently significant uncertainty about the future relationship between the United States and various other countries, including China, the European Union, Canada, and Mexico, with respect to trade policies, treaties, tariffs and customs duties, and taxes. Since 2019, the U.S. government has implemented significant changes to U.S. trade policy with respect to China. Tariffs have subjected certain Alarm.com products manufactured overseas to additional import duties of up to 25%. The amount of the import tariff and the number of products subject to tariffs have changed numerous times based on action by the U.S. government. We are addressing the risks related to these imposed and announced tariffs, which have affected, or have the potential to affect, at least some of our imports from China.

Between one-fifth to one-half of the hardware products that we sell to our customers are imported from China and could be subject to increased tariffs. Other Alarm.com hardware products that are not manufactured in China may contain subcomponents made in China that could also be subject to increased tariffs. While the additional import duties have resulted in an increase to our cost of hardware revenue, these import duties had a modest impact on hardware revenue margins. If tariffs, trade restrictions, or trade barriers are expanded or interpreted by a court or governmental agency to apply to more of our products, then our exposure to future taxes and duties on such imported products and components could be significant and could have a material effect on our financial results. If our products are deemed to be subject to additional duties and taxes as determined by a court or governmental agency, we may suffer additional hardware revenue margin erosion or be required to raise our prices on certain imported products. There can be no assurance that we will not experience a disruption in our business or harm to our financial condition related to these or other changes in trade practices, and any changes to our operations or our sourcing strategy in order to mitigate any such tariff costs could be complicated, time-consuming, and costly. Furthermore, our business may be adversely affected by retaliatory trade measures taken by China and other countries, which could materially harm our business, financial condition and results of operations. Trade barriers, or the perception that any of them could be imposed, may have a negative effect on global economic conditions and the stability of global financial markets, and may significantly reduce global trade and, in particular, trade between these nations and the United States. Any of these factors could have a material adverse effect on our business, financial condition and results of operations.

On June 17, 2021, the U.S. Federal Communications Commission, or the FCC, adopted a proposed rule that would effectively ban in the United States all communications equipment provided by entities identified on a "Covered List" that it maintains pursuant to the Secure and Trusted Communications Networks Act of 2019. The Covered List currently consists of video surveillance and telecommunications equipment produced by five Chinese electronics companies, including one of our suppliers. Although the proposed rule does not include language regarding retroactive application of the proposed ban, the FCC has asked for comment on whether and under what circumstances it should revoke existing authorizations of communications equipment from companies on the Covered List. On November 11, 2021, President Biden signed into law the Secure Equipment Act of 2021 which requires the FCC to adopt rules clarifying that it will no longer review or approve any authorization application for equipment that poses an unacceptable risk to national security. If the final rule issued by the FCC restricts our ability to sell any of our existing inventory of products on the Covered List or applies retroactively to products already sold, this would likely adversely affect our business, financial condition, cash flows and results of operations.

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

Our accounting policies are critical to the manner in which we present our results of operations and financial condition. Many of these policies are highly complex and involve many assumptions, estimates and judgments. A change in accounting standards or practices, in particular with respect to revenue recognition, could harm our operating results and may even affect our reporting of transactions completed before the change is effective. GAAP rules are subject to interpretation by the Financial Accounting Standards Board, or FASB, the SEC and other various bodies formed to promulgate and interpret appropriate accounting principles. See Note 2 to our consolidated financial statements for new accounting pronouncements. Implementation of new accounting standards could have a significant effect on our financial results, and any difficulties in implementing these pronouncements could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors' confidence in us.

Our accounting is becoming more complex, and relies upon estimates or judgments relating to our critical accounting policies. If our accounting is erroneous or based on assumptions that change or prove to be incorrect, our operating results could fall below 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, and also to comply with many complex requirements and standards. Because of the use of estimates inherent in the financial reporting process, actual results could differ from those estimates and any such differences may be material. We devote substantial resources to compliance with accounting requirements and we base our estimates on our best judgment, historical experience, information derived from third parties, and on various other assumptions that we believe to be reasonable under the circumstances, 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. However, various factors are causing our accounting to become complex. Ongoing evolution of our business, and the COVID-19 pandemic and resulting uncertainty have, and any future acquisitions may, compound these complexities. Our operating results may be adversely affected if we make accounting errors or our judgments prove to be wrong, assumptions change or actual circumstances differ from those in our assumptions, which could cause our operating results to fall below the expectations of securities analysts and investors or guidance we may have provided, resulting in a decline in our stock price and potential legal claims. Significant judgments, assumptions and estimates used in preparing our consolidated financial statements include those related to revenue recognition, stock-based compensation, business combinations, and income taxes.

Risks Related to Our Intellectual Property

If we fail to protect our intellectual property and proprietary rights adequately, our business could be harmed.

We believe that our proprietary technology is essential to establishing and maintaining our leadership position. We seek to protect our intellectual property through trade secrets, copyrights, confidentiality, non-compete and nondisclosure agreements, patents, trademarks, domain names and other measures, some of which afford only limited protection. We also rely on patent, trademark, trade secret and copyright laws to protect our intellectual property. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our technology or to obtain and use information that we regard as proprietary. Our means of protecting our proprietary rights may not be adequate or our competitors may independently develop similar or superior technology, or design around our intellectual property. In addition, the laws of some foreign countries do not protect our proprietary rights to as great an extent as the laws of the United States. Intellectual property protections may also be unavailable, limited or difficult to enforce in some countries, which could make it easier for competitors to capture market share. Our failure or inability to adequately protect our intellectual property and proprietary rights could harm our business, financial condition, cash flows and results of operations.

To prevent substantial unauthorized use of our intellectual property rights, it may be necessary to prosecute actions for infringement and/or misappropriation of our proprietary rights against third parties. See the section of this Annual Report titled "Legal Proceedings" for additional information on related intellectual property litigation matters. Any such action could result in significant costs and diversion of our resources and management's attention, and we cannot assure you that we will be successful in such action. Furthermore, many of our current and potential competitors have the ability to dedicate substantially greater resources to enforce their intellectual property rights than we do. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating our intellectual property.

An assertion by a third party that we are infringing its intellectual property could subject us to costly and time-consuming litigation or expensive licenses that could harm our business and results of operations.

The industries in which we compete are characterized by the existence of a large number of patents, copyrights, trademarks and trade secrets, and by frequent litigation based on allegations of infringement or other violations of intellectual property rights. We have been involved with patent litigation suits in the past and we may be involved with and subject to similar litigation in the future to defend our intellectual property position. For example, on June 2, 2015, Vivint filed a lawsuit against us in U.S. District

Court, District of Utah, alleging that our technology directly and indirectly infringes six patents that Vivint purchased. Vivint is seeking permanent injunctions, enhanced damages and attorneys' fees. Should Vivint prevail on its claims that one or more elements of our solution infringe one or more of its patents, we could be required to pay damages of Vivint's lost profits and/or a reasonable royalty for sales of our solution, enjoined from making, using, and selling our solution if a license or other right to continue selling such elements is not made available to us or we are unable to design around such patents, and required to pay ongoing royalties and comply with unfavorable terms if such a license is made available to us. While we believe we have valid defenses to Vivint's claims, any of these outcomes could result in a material adverse effect on our business.

In addition, on January 10, 2022, EcoFactor, filed a lawsuit against us in U.S. District Court, District of Oregon, alleging Alarm.com's products and services directly and indirectly infringe five U.S. patents owned by EcoFactor. EcoFactor is seeking permanent injunctions, enhanced damages and attorneys' fees. See the section of this Annual Report titled "Legal Proceedings" for additional information on each of these matters. Should EcoFactor prevail in either of its district court lawsuits we could be required to pay damages in the amount of EcoFactor's lost profits and/or a reasonable royalty for sales of our solution, we could be enjoined from making, using and selling our solution if a license or other right to continue selling such elements is not made available to us or we are unable to design around such patents, and we could be required to pay ongoing royalties and comply with unfavorable terms if such a license is made available to us. While we believe we have valid defenses to EcoFactor's claims, any of these outcomes could result in a material adverse effect on our business.

On July 22, 2021, Causam filed a lawsuit against us in U.S. District Court, Western District of Texas, alleging that Alarm.com's smart thermostats infringe four U.S. patents owned by Causam. Causam is seeking preliminary and permanent injunctions, enhanced damages and attorneys' fees. On July 28, 2021, Causam filed a complaint with the ITC alleging infringement of the same four patents. Causam is seeking a permanent limited exclusion order and permanent cease and desist order. See the section of this Annual Report titled "Legal Proceedings" for additional information on each of these matters. Should Causam prevail in an ITC investigation, Alarm.com thermostats manufactured abroad could be excluded from importation into the United States. Should Causam prevail in its district court lawsuit we could be required to pay damages and/or a reasonable royalty for sales of our solution, we could be enjoined from making, using and selling our solution if a license or other right to continue selling such elements is not made available to us, and we could be required to pay ongoing royalties and comply with unfavorable terms if such a license is made available to us. While we believe we have valid defenses to Causam's claims, the outcome of these legal claims cannot be predicted with certainty, and any of these outcomes could result in an adverse effect on our business.

Even if we were to prevail in any of these matters, ongoing litigation could continue to be costly and time-consuming, divert the attention of our management and key personnel from our business operations and dissuade potential customers from purchasing our solution, which would also materially harm our business. During the course of each of these litigation matters, we anticipate announcements of the results of hearings and motions, and other interim developments related to the litigation matters at hand. If securities analysts or investors regard these announcements as negative, the market price of our common stock may decline.

We might not prevail in any intellectual property infringement litigation given the complex technical issues and inherent uncertainties in such litigation and our service provider partner contracts may require us to indemnify them against certain liabilities they may incur as a result of our infringement or alleged infringement of any third party intellectual property. Defending such claims, regardless of their merit, could be time-consuming and distracting to management, result in costly litigation or settlement, cause development delays or require us to enter into royalty or licensing agreements. In addition, we currently have a limited portfolio of issued patents compared to our larger competitors, and therefore may not be able to effectively utilize our intellectual property portfolio to assert defenses or counterclaims in response to patent infringement claims or litigation brought against us by third parties. Further, litigation may involve patent holding companies or other adverse patent owners who have no relevant products or revenues and against which our potential patents provide no deterrence, and many other potential litigants have the capability to dedicate substantially greater resources to enforce their intellectual property rights and to defend claims that may be brought against them. Given that our platforms and solutions integrate with many aspects of a property, the risk that our platforms and solutions may be subject to these allegations is exacerbated. As we seek to extend our platforms and solutions, we could be constrained by the intellectual property rights of others. If our platforms and solutions exceed the scope of in-bound licenses or violate any third party proprietary rights, we could be required to withdraw those solutions from the market, re-develop those solutions or seek to obtain licenses from third parties, which might not be available on reasonable terms or at all. Any efforts to re-develop our platforms and solutions, obtain licenses from third parties on favorable terms or license a substitute technology might not be successful and, in any case, might substantially increase our costs and harm our business, financial condition, cash flows and results of operations. If we were compelled to withdraw any of our platforms and solutions from the market, our business, financial condition, cash flows and results of operations could be harmed.

We have indemnity obligations to certain of our service provider partners for certain expenses and liabilities resulting from intellectual property infringement claims regarding our platforms and solutions, which could force us to incur substantial costs.

We have indemnity obligations to certain of our service provider partners for intellectual property infringement claims regarding our platforms and solutions. As a result, in the case of infringement claims against these service provider partners, we could be required to indemnify them for losses resulting from such claims or to refund amounts they have paid to us. We expect that some of our service provider partners may seek indemnification from us in connection with infringement claims brought against them. In addition, we may elect to indemnify service provider partners where we have no contractual obligation to indemnify them and we will evaluate each such request on a case-by-case basis. If a service provider partner elects to invest resources in enforcing a claim for indemnification against us, we could incur significant costs disputing it. If we do not succeed in disputing it, we could face substantial liability. See the section of this Annual Report titled "Legal Proceedings" for additional information regarding this matter and the other legal proceedings we are involved in.

The use of open source software in our platforms and solutions may expose us to additional risks and harm our intellectual property.

Some of our platforms and solutions use or incorporate software that is subject to one or more open source licenses and we may incorporate open source software in the future. Open source software is typically freely accessible, usable and modifiable. Certain open source software licenses require a user who intends to distribute the open source software as a component of the user's software to disclose publicly part or all of the source code to the user's software. In addition, certain open source software licenses require the user of such software to make any derivative works of the open source code available to others on potentially unfavorable terms to us or at no cost.

The terms of many open source licenses to which we are subject have not been interpreted by U.S. or foreign courts, and accordingly there is a risk that those licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to commercialize our platforms and solutions. In that event, we could be required to seek licenses from third parties in order to continue offering our platforms and solutions, to re-develop our platforms and solutions, to discontinue sales of our platforms and solutions or to release our proprietary software code under the terms of an open source license, any of which could harm our business. Further, given the nature of open source software, it may be more likely that third parties might assert copyright and other intellectual property infringement claims against us based on our use of these open source software programs. Litigation could be costly for us to defend, have a negative effect on our business, financial condition, cash flows and results of operations or require us to devote additional research and development resources to change our solutions.

Although we are not aware of any use of open source software in our platforms and solutions that would require us to disclose all or a portion of the source code underlying our core solutions, it is possible that such use may have inadvertently occurred in deploying our platforms and solutions. Additionally, if a third party software provider has incorporated certain types of open source software into software we license from such third party for our platforms and solutions without our knowledge, we could, under certain circumstances, be required to disclose the source code to our platforms and solutions. This could harm our intellectual property position as well as our business, financial condition, cash flows and results of operations.

Risks Related to Ownership of Our Common Stock

The market price of our common stock has been and will likely continue to be volatile.

The market price of our common stock may be highly volatile and may fluctuate substantially as a result of a variety of factors, some of which are related in complex ways. The market price of our common stock may decline regardless of our operating performance, resulting in the potential for substantial losses for our stockholders, and may fluctuate significantly in response to numerous factors, many of which are beyond our control, including the factors listed below and other factors described in this "Risk Factors" section:

- actual or anticipated fluctuations in our financial condition and operating results;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- failure of securities analysts to initiate or maintain coverage of our company, changes in financial estimates by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- ratings changes by any securities analysts who follow our company;
- variance in our financial performance from expectations of securities analysts;

- announcements by us or our competitors of significant business developments, technical innovations, acquisitions or new solutions;
- changes in the prices of our platforms and solutions;
- changes in our projected operating and financial results;
- changes in laws or regulations applicable to our platforms and solutions or marketing techniques, or our industry in general;
- our involvement in any litigation, including any lawsuits threatened or filed against us;
- repurchases of our common stock under the stock repurchase program authorized by our board of directors or our sale of our common stock or other securities in the future;
- changes in senior management or key personnel;
- trading volume of our common stock;
- changes in the anticipated future size and growth rate of our market; and
- general economic, regulatory and market conditions in the United States and abroad as well as the uncertainty resulting from the COVID-19 pandemic.

The stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry fluctuations, as well as general economic, political, regulatory and market conditions, may negatively impact the market price of our common stock. In the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial costs and divert our management's attention.

Sales of a substantial number of shares of our common stock in the public market could cause our market price to decline.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales, particularly sales by our directors, executive officers, and significant stockholders, may have on the prevailing market price of our common stock. Additionally, the shares of common stock subject to outstanding options under our equity incentive plans and the shares reserved for future issuance under our equity incentive plans, as well as shares issuable upon vesting of restricted stock awards, will become eligible for sale in the public market in the future, subject to certain legal and contractual limitations. Moreover, some holders of shares of our common stock have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or our stockholders. We have also registered shares of common stock that we may issue under our employee equity incentive plans. Accordingly, these shares may be able to be sold freely in the public market upon issuance as permitted by any applicable vesting requirements. See "Conversion of the 2026 Notes may dilute the ownership interest of our stockholders or may otherwise depress the price of our common stock" below for further details on the risks related to the dilutive impact of the 2026 Notes.

We are obligated to develop and maintain a system of effective internal controls over financial reporting. These internal controls may be determined to be not effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We have been and are required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting on an annual basis. This assessment includes disclosure of any material weaknesses identified by our management in our internal control over financial reporting. During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal controls are effective and would be required to disclose any material weaknesses identified in Management's Report on Internal Control over Financial Reporting. While we have established certain procedures and control over our financial reporting processes, we cannot assure you that these efforts will prevent restatements of our financial statements in the future.

Our independent registered public accounting firm is also required, pursuant to Section 404 of the Sarbanes-Oxley Act, to report on the effectiveness of our internal control over financial reporting. For future reporting periods, our independent registered

public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our controls are documented, designed or operating. We may not be able to remediate any future material weaknesses, or to complete our evaluation, testing and any required remediation in a timely fashion.

If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion that our internal controls over financial reporting are effective, investors could lose confidence in the accuracy and completeness of our financial reports, which could cause the price of our common stock to decline, and we could be subject to sanctions or investigations by regulatory authorities, including the SEC and Nasdaq. Failure to remediate any material weakness in our internal control over financial reporting, or to maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

If securities or industry analysts publish negative reports about our business, or cease coverage of our company, our share price and trading volume could decline.

The trading market for our common stock depends, in part, on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If our financial performance fails to meet analyst estimates or one or more of the analysts who cover us downgrade our shares or change their opinion of our shares, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail 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 do not intend to pay dividends for the foreseeable future and, as a result, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We do not intend to pay any cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the development of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors and may be subject to any restrictions on paying dividends in any future indebtedness. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

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

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

- authorize our board of directors to issue preferred stock, without further stockholder action and with voting liquidation, dividend and other rights superior to our common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent, and limit the ability of our stockholders to call special meetings;
- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for director nominees;
- prohibit cumulative voting in the election of directors; and
- provide that vacancies on our board of directors may be filled only by the vote of a majority of directors then in office, even though less than a quorum.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder. Any of the foregoing provisions could limit the price that investors might be willing to pay in the future for shares of our common stock, and they could deter potential acquirers of our company, thereby reducing the likelihood that you would receive a premium for your common stock in an acquisition.

Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware and, to the extent enforceable, the federal district courts of the United States of America as the exclusive forums for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us.

Pursuant to our amended and restated certificate of incorporation, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws or (4) any action asserting a claim governed by the internal affairs doctrine. Notwithstanding the foregoing, this choice of forum provision will not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended, or any other claim for which the federal courts have exclusive jurisdiction. Accordingly, both state and federal courts have jurisdiction to entertain such claims. Our amended and restated certificate of incorporation provides that any person or entity purchasing or otherwise acquiring any interest in shares of our common stock is deemed to have notice of and consented to the foregoing provision. Furthermore, our amended and restated bylaws provide that unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any claims arising under the Securities Act. The forum selection clause in our amended and restated certificate of incorporation may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us.

Risks Related to our Outstanding Convertible Senior Notes

We may not have the ability to raise the funds necessary to settle cash conversions of the 2026 Notes or to repurchase the 2026 Notes upon a fundamental change, and our future debt may contain limitations on our ability to pay cash upon conversion or repurchase of the 2026 Notes.

On January 20, 2021, we issued the 2026 Notes. The terms of the 2026 Notes are governed by an Indenture, or the Indenture, by and between Alarm.com Holdings, Inc. and U.S. Bank National Association, as trustee. The 2026 Notes are senior unsecured obligations that do not bear regular interest and the principal amount of the 2026 Notes will not accrete. The 2026 Notes may bear special interest under specified circumstances related to our failure to comply with our reporting obligations under the Indenture. Special interest, if any, will be payable semiannually in arrears on January 15 and July 15 of each year, beginning on July 15, 2021. We received proceeds from the issuance of the 2026 Notes of \$484.3 million, net of \$15.7 million of transaction fees and other debt issuance costs. Holders of the 2026 Notes will have the right, subject to certain conditions and limited exceptions, to require us to repurchase all or a portion of their notes upon the occurrence of a fundamental change at a fundamental change repurchase price equal to 100% of the principal amount of the 2026 Notes to be repurchased, plus accrued and unpaid special interest, if any, as defined in the Indenture. In addition, upon conversion of the 2026 Notes, unless we elect to deliver solely shares of our common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the 2026 Notes being converted as defined in the Indenture. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of 2026 Notes surrendered therefor or pay cash with respect to 2026 Notes being converted. In addition, our ability to repurchase the 2026 Notes or to pay cash upon conversions of the 2026 Notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness. Our failure to repurchase the 2026 Notes at a time when the repurchase is required by the Indenture or to pay any cash payable on future conversions of the 2026 Notes as required by the Indenture would constitute a default under the Indenture. A default under the Indenture governing the 2026 Notes or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the 2026 Notes or make cash payments upon conversions thereof.

The conditional conversion feature of the 2026 Notes, if triggered, may adversely affect our financial condition and operating results.

In the event the conditional conversion feature of the 2026 Notes is triggered, holders of 2026 Notes will be entitled to convert the 2026 Notes at any time during specified periods at their option. If one or more holders elect to convert their 2026 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 do not elect to convert their notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

Conversion of the 2026 Notes may dilute the ownership interest of our stockholders or may otherwise depress the price of our common stock.

The conversion of some or all of the 2026 Notes may dilute the ownership interests of our stockholders. Upon conversion of the 2026 Notes, we have the option to pay or deliver, as the case may be, cash, shares of our common stock, or a combination of cash and shares of our common stock. If we elect to settle our conversion obligation in shares of our common stock or a combination of cash and shares of our common stock, any sales in the public market of our common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the 2026 Notes may encourage short selling by market participants because the conversion of the 2026 Notes could be used to satisfy short positions, or anticipated conversion of the 2026 Notes into shares of our common stock could depress the price of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our Facilities

Our principal office is located in Tysons, Virginia, where we currently occupy 189,881 square feet of commercial space under a lease we entered into in August 2014 which expires in 2026. We previously amended our lease to expand our square footage as we continued to grow. Our Alarm.com segment uses this facility for sales and marketing, research and development, customer service and administrative purposes.

Our Alarm.com segment leases offices in Bloomington, Minnesota and Redwood City, California as well as in other locations. Our Other segment leases an office in Brooklyn, New York as well as in other locations. We also own a commercial building located in Liberty Lake, Washington. These facilities are used for sales and training, research and development, technical support, warehousing and administrative purposes.

ITEM 3. LEGAL PROCEEDINGS

On June 2, 2015, Vivint, Inc., or Vivint, filed a lawsuit against us in U.S. District Court, District of Utah, alleging that our technology directly and indirectly infringes six patents that Vivint purchased. Vivint is seeking permanent injunctions, enhanced damages and attorneys' fees. We answered the complaint on July 23, 2015. Among other things, we asserted defenses based on non-infringement and invalidity of the patents in question. In 2017 and 2019, the U.S. Patent Trial and Appeal Board, or PTAB, issued final written decisions in inter partes reviews finding all or some of the claims in five of the asserted patents unpatentable. These decisions were affirmed on appeal. Vivint is proceeding with its case on three patents. Discovery closed on October 29, 2021. Vivint has moved for partial summary judgment and Alarm.com has moved for summary judgment; both motions are pending decision. No trial date has been set. On February 12, 2021, we filed an action in U.S. District Court, Eastern District of Virginia challenging the refusal by the U.S. Patent and Trademark Office, or PTO, to proceed with ex parte reexaminations of the remaining patent claims asserted in the lawsuit. The U.S. District Court, Eastern District of Virginia granted the PTO's motion to dismiss the case for lack of jurisdiction on June 22, 2021. We appealed the dismissal to the Federal Circuit on June 24, 2021.

Should Vivint prevail in proving Alarm.com infringes one or more of its patent claims, we could be required to pay damages of Vivint's lost profits and/or a reasonable royalty for sales of our solution. Since all remaining patent claims in the litigation have expired, Vivint shall not be entitled to injunctive relief as a remedy in this matter. While we believe we have valid defenses to Vivint's claims, any of these outcomes could result in a material adverse effect on our business. Even if we were to prevail, this litigation could continue to be costly and time-consuming, divert the attention of our management and key personnel from our business operations and dissuade potential customers from purchasing our solution, which would also materially harm our business. During the course of the litigation, we anticipate announcements of the results of hearings and motions, and other interim developments related to the litigation. If securities analysts or investors regard these announcements as negative, the market price of our common stock may decline.

On January 10, 2022, EcoFactor, Inc., or EcoFactor, filed a lawsuit against us in U.S. District Court, District of Oregon, alleging Alarm.com's products and services directly and indirectly infringe five U.S. patents owned by EcoFactor. EcoFactor is seeking permanent injunctions, enhanced damages and attorneys' fees. Our response to the complaint is due on March 28, 2022. EcoFactor had previously asserted two of the same patents against us in an October 2019 complaint with the U.S. International Trade Commission, or ITC. In July 2021, the ITC found in favor of Alarm.com. EcoFactor appealed the decision but withdrew its appeal in December 2021. The other three asserted patents are currently in ex parte reexamination proceedings at the PTO, and one of them is also the subject of a pending inter partes review before the PTAB.

Should EcoFactor prevail in its lawsuit we could be required to pay damages and/or a reasonable royalty for sales of our solution, we could be enjoined from making, using and selling our solution if a license or other right to continue selling such elements is not made available to us, and we could be required to pay ongoing royalties and comply with unfavorable terms if such a license is made available to us. While we believe we have valid defenses to EcoFactor's claims, the outcome of these legal claims cannot be predicted with certainty and any of these outcomes could result in an adverse effect on our business.

On July 22, 2021, Causam Enterprises, Inc., or Causam, filed a lawsuit against us in U.S. District Court, Western District of Texas, alleging that Alarm.com's smart thermostats infringe four U.S. patents owned by Causam. Causam is seeking preliminary and permanent injunctions, enhanced damages and attorneys' fees. We have not yet responded to the complaint. On September 3, 2021, the court issued an order staying the lawsuit until the ITC investigation described below is finally resolved.

On July 28, 2021, Causam filed a complaint with the ITC naming Alarm.com Incorporated, Alarm.com Holdings, Inc., and EnergyHub, Inc., among others, as proposed respondents. The complaint alleges infringement of the same four patents Causam asserted in district court. Causam is seeking a permanent limited exclusion order and permanent cease and desist order. On August 27, 2021, the ITC instituted an investigation into Causam's allegations naming Alarm.com Incorporated, Alarm.com Holdings, Inc., EnergyHub Inc. and others as respondents. We answered the complaint on October 4, 2021. Among other things,

we asserted defenses based on non-infringement and invalidity of the patents in question. The administrative law judge presiding over the hearing has scheduled an evidentiary hearing in the investigation to begin on June 29, 2022. The target date for completion of the investigation is March 16, 2023.

Should Causam prevail in an ITC investigation, Alarm.com thermostats manufactured abroad could be excluded from importation into the United States. Should Causam prevail in its district court lawsuit we could be required to pay damages and/or a reasonable royalty for sales of our solution, we could be enjoined from making, using and selling our solution if a license or other right to continue selling such elements is not made available to us, and we could be required to pay ongoing royalties and comply with unfavorable terms if such a license is made available to us. While we believe we have valid defenses to Causam's claims, the outcome of these legal claims cannot be predicted with certainty, and any of these outcomes could result in an adverse effect on our business.

In addition to the matters described above, we may be required to provide indemnification to certain of our service provider partners for certain claims regarding our solutions. For example, we are incurring costs associated with the indemnification of our service provider ADT, LLC in ongoing patent infringement suits.

On February 25, 2021, Vivint filed a lawsuit against ADT LLC a/k/a ADT LLC of Delaware d/b/a ADT Security Services in U.S. District Court, District of Utah, alleging that ADT Pulse, Control, and Blue each infringe one or more of six patents owned by Vivint. Vivint is seeking damages and attorneys' fees. Vivint filed an amended complaint on March 24, 2021. ADT answered the amended complaint on April 30, 2021 and asserted defenses based on non-infringement and invalidity of all the patents in question, and inequitable conduct as to one of the patents. On August 6, 2021, the parties to the case stipulated to the dismissal of Vivint's claims as to one of the six patents, leaving five in the case. On June 25, 2021, ADT filed a motion for judgment on the pleadings seeking judgment in its favor on the grounds that the claimed inventions are directed to ineligible subject matter. On February 22, 2022, the court denied the motion without prejudice and granted Vivint leave to file a second amended complaint. The case is currently in discovery, and no trial date has been set. One of the asserted patents is under inter partes review at the PTAB, and ADT has filed petitions for inter partes review for three other asserted patents for which decisions on institution are pending.

Should Vivint prevail on the claims that one or more elements of ADT's products infringe, we could be required to indemnify ADT for damages in the form of a reasonable royalty or ADT could be enjoined from making, using and selling our solution if a license or other right to continue selling our technology is not made available or we are unable to design around such patents, and required to pay ongoing royalties and comply with unfavorable terms if such a license is made available to us. The outcome of these legal claims cannot be predicted with certainty.

We may also be a party to litigation and subject to claims incident to the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors. For a description of our legal proceedings, see Note 13 to our consolidated financial statements for additional information.

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 commenced trading on The Nasdaq Global Select Market on June 26, 2015 and trades under the symbol "ALRM." Prior to June 26, 2015, there was no public market for our common stock. On February 17, 2022, the closing price of our common stock on The Nasdaq Global Select Market was \$70.04 per share.

Holdings

As of February 17, 2022, there were 22 stockholders of record of our common stock, one of which is Cede & Co., a nominee for Depository Trust Company, or DTC. All of the shares of common stock held by brokerage firms, banks and other financial institutions as nominees for beneficial owners are deposited into participant accounts at DTC, and are considered to be held of record by Cede & Co. as one stockholder.

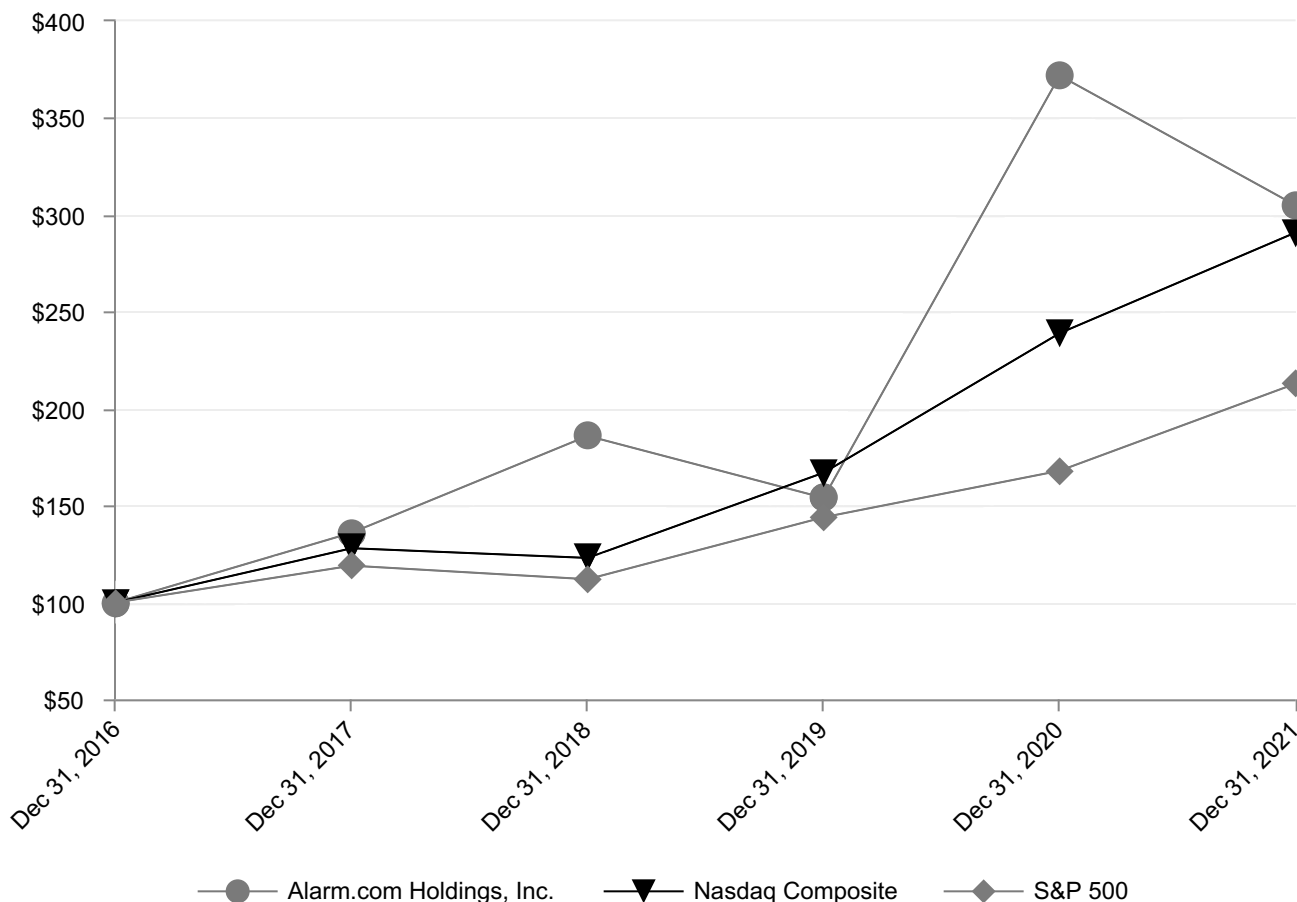
Dividends

We cannot provide any assurance that we will declare or pay cash dividends on our common stock in the future. We currently anticipate that we will retain all of our future earnings, if any, for use in the operation and expansion of our business and we do not anticipate paying cash dividends in the foreseeable future. Additionally, our ability to pay dividends on our common stock was limited during a portion of 2021 by restrictions under the terms of the agreements governing our 2017 Facility with SVB, as amended, as further disclosed under "Sources of Liquidity" in Part II Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations." Payment of future cash dividends, if any, will be at the discretion of the board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs, the requirements of current or then-existing debt instruments and other factors the board of directors deems relevant.

Stock Performance Graph

This performance graph shall not be deemed "soliciting material" or to be "filed" with the SEC 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.

The following graph shows a comparison for the period from December 31, 2016 through December 31, 2021 of the cumulative total return for (i) our common stock, (ii) the Nasdaq Composite Index and (iii) Standard & Poor's 500 Index, or S&P 500 Index assuming an initial investment of \$100 on the last trading day for the fiscal year ended December 31, 2016 and reinvestment of all dividends. The returns in the graph are not intended to forecast or be indicative of possible future performance of our common stock.



Recent Sales of Unregistered Securities

In January 2021, we issued \$500.0 million aggregate principal amount of 0% convertible senior notes due January 15, 2026, or the 2026 Notes, in a private offering pursuant to Rule 144A under the Securities Act. The offer and sale of the 2026 Notes to the initial purchasers for the 2026 Notes was made in reliance on the exemption from registration provided by Section 4(a)(2) of the Securities Act. We relied on this exemption from registration based in part on representations made by the initial purchasers, including that such initial purchasers would only offer, sell or deliver the 2026 Notes to persons whom they reasonably believe to be qualified institutional buyers within the meaning of Rule 144A under the Securities Act.

For more information related to the 2026 Notes, see Note 13 to our consolidated financial statements included in this Annual Report on Form 10-K.

Use of Proceeds

None.

Issuer Purchases of Equity Securities

No shares were repurchased under our stock repurchase program during the quarter ended December 31, 2021. The following table contains information relating to the repurchases of our common stock made by us in the quarter ended December 31, 2021:

Period	Total Number of Shares Purchased ⁽¹⁾	Average Price Paid per Share	Total Number of Shares Purchased as a Part of a Publicly Announced Program ⁽¹⁾⁽²⁾	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program
October 1 to October 31, 2021	—	\$ —	—	\$ 100,000,000
November 1 to November 30, 2021	—	—	—	100,000,000
December 1 to December 31, 2021	—	—	—	100,000,000
Total	—	\$ —	—	

(1) We withhold shares of common stock in connection with the vesting of restricted stock unit awards issued to employees to satisfy applicable tax withholding requirements. These withheld shares are not issued or considered common stock repurchases under our stock repurchase program and therefore, are excluded from the table above.

(2) On December 3, 2020, our board of directors authorized a stock repurchase program, under which we are authorized to purchase up to an aggregate of \$100.0 million of our outstanding common stock from time to time on the open market or in privately negotiated transactions, block trades, tender offers and by any combination of the foregoing, in accordance with federal securities laws, during the three-year period ending December 3, 2023.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and the related notes and other financial information included elsewhere in this Annual Report. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. You should review Item 1A. "Risk Factors" and "Special Note Regarding Forward-Looking Statements" in this Annual Report for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

Alarm.com is the leading platform for the intelligently connected property. We offer a comprehensive suite of cloud-based solutions for smart residential and commercial properties, including interactive security, video monitoring, intelligent automation, access control, energy management and wellness solutions. Millions of property owners depend on our technology to intelligently secure, automate and manage their residential and commercial properties. In the last year alone, our platforms processed more than 200 billion data points generated by over 100 million connected devices. We believe that this scale of subscribers, connected devices and data operations makes us the leader in the connected property market.

Our solutions are delivered through an established network of over 10,900 trusted service providers, who are experts at selling, installing and supporting our solutions. We primarily generate Software-as-a-Service, or SaaS, and license revenue through our service provider partners, who resell these services and pay us monthly fees. These service provider contracts typically have an initial term of one year, with subsequent renewal terms of one year. Our service provider partners have indicated that they typically have three to five-year service contracts with residential and commercial property owners who use our solutions. We also generate hardware and other revenue, primarily from our service provider partners and distributors. Our hardware sales include connected devices that enable our services, such as video cameras, video recorders, gunshot detection sensors, gateway modules and smart thermostats. We believe that the length of our service relationships with residential and commercial property owners, combined with our robust platforms and over 20 years of operating experience, contribute to a compelling business model.

Our solutions are designed to make both residential and commercial properties safer, smarter and more efficient. Our technology platforms support all participants in what we refer to as the connected property market. This market includes the residential and commercial property owners who subscribe to our services, the hardware partners who manufacture devices that integrate with our platforms and the service provider partners who install and maintain our solutions.

The Alarm.com platform enables our service provider partners to deploy our interactive security, video monitoring, intelligent automation, energy management and wellness solutions as stand-alone offerings or as combined solutions to address the needs of a broad range of customers.

Executive Overview and Highlights of 2021 and 2020 Results

We primarily generate SaaS and license revenue, our largest source of revenue, through our service provider partners who resell our services and pay us monthly fees. Our service provider partners sell, install and support Alarm.com solutions that enable residential and commercial property owners to intelligently secure, connect, control and automate their properties. Our subscribers consist of all of the properties maintained by those residential and commercial property owners to which we are delivering at least one of our solutions. We derive a portion of our revenue from licensing our intellectual property to third parties on a per customer basis. SaaS and license revenue represented 61%, 64% and 67% of our revenue in 2021, 2020 and 2019, respectively.

We also generate SaaS and license revenue from monthly fees charged to service providers on a per subscriber basis for access to our non-hosted software platform, or Software platform. The non-hosted software for interactive security, automation and related solutions is typically deployed and operated by the service provider in its own network operations center. Software license revenue represented 4%, 6% and 9% of our revenue in 2021, 2020 and 2019, respectively.

We also generate revenue from the sale of many types of hardware, including video cameras, video recorders, cellular radio modules, thermostats, image sensors, gunshot detection sensors and other peripherals, that enable our solutions. Our hardware and other revenue also includes our revenue from the sale of perpetual licenses that provide our customers in the commercial market the right to use our video surveillance software for an indefinite period of time in exchange for a one-time license fee. Our hardware and other revenue also includes our revenue from the sale of licenses that provide our customers the right to use our gunshot detection solution in exchange for license fees. Hardware and other revenue represented 39%, 36% and 33% of our revenue in 2021, 2020 and 2019, respectively. We typically expect hardware and other revenue to fluctuate as a percentage of total revenue.

Highlights of our financial performance for the periods covered in this Annual Report include:

- SaaS and license revenue increased 17% to \$460.4 million in 2021 from \$393.3 million in 2020. SaaS and license revenue increased 17% to \$393.3 million in 2020 from \$337.4 million in 2019.
- Total revenue increased 21% to \$749.0 million in 2021 from \$618.0 million in 2020. Total revenue increased 23% to \$618.0 million in 2020 from \$502.4 million in 2019.
- Net income decreased 33% to \$51.2 million in 2021 from \$76.7 million in 2020. Net income increased 44% to \$76.7 million in 2020 from \$53.3 million in 2019. Net income attributable to common stockholders decreased 33% to \$52.3 million in 2021 from \$77.9 million in 2020. Net income attributable to common stockholders increased 45% to \$77.9 million in 2020 from \$53.5 million in 2019.
- Adjusted EBITDA, a non-GAAP measurement of operating performance, increased to \$142.5 million in 2021 from \$125.3 million in 2020. Adjusted EBITDA increased to \$125.3 million in 2020 from \$108.3 million in 2019.

Please see *Non-GAAP Measures* below in this section of this Annual Report for a discussion of the limitations of Adjusted EBITDA (a non-GAAP measure) and a reconciliation of Adjusted EBITDA to net income, the most comparable GAAP measure, for the years ended December 31, 2021, 2020 and 2019.

Historical Trends within the Financial Results

Information about current period and prior period acquisitions that may affect the comparability of our historical financial information is included in Item 1. Business. Information about the 2026 Notes issued in January 2021 and the related interest expense, which may affect the comparability of historical financial information, is disclosed in the Comparison of Years Ended December 31, 2021 to December 31, 2020 section below within Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations." Information about the \$24.7 million gain on the sale of an investment recorded in other (expense) / income, net, in 2020, which relates to the sale of an investment in one of our platform partners, and may affect the comparability of historical financial information, is disclosed in the Comparison of Years Ended December 31, 2021 to December 31, 2020 section below within Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Geographic Areas

We believe there is significant opportunity to expand our international business, as 3% of our total revenue during the year ended December 31, 2021 originated from customers located outside of North America. Our products are currently localized and available in approximately 40 countries outside of North America.

Recent Developments

The COVID-19 pandemic disrupted and may continue to disrupt our supply chain for an unknown period of time due to its impact on manufacturing, production and global transportation. The COVID-19 pandemic also disrupted and may intermittently continue to disrupt our sales channels due to restrictions on our service providers' ability to meet with residential and commercial property owners who use our solutions. We have taken precautionary measures intended to help protect our employees, service providers and subscribers, as well as the communities in which we participate, including enabling substantially all of our employees to work remotely. In addition, the COVID-19 pandemic resulted in a global slowdown of economic activity and a recession in the United States and the economic situation remains fluid as parts of the economy appear to be recovering while others continue to struggle. While vaccines have been approved for use in the United States and in many other countries, and vaccination efforts are well underway, it remains difficult to assess or predict the ultimate duration and economic impact of the COVID-19 pandemic due to a resurgence of COVID-19 and the emergence and severity of COVID-19 variants. Prolonged uncertainty with respect to COVID-19 could cause further economic slowdown or cause other unpredictable events, each of which could adversely affect our business, results of operations or financial condition.

While our business and those of our service providers showed some resiliency beginning in 2020, with the start of the pandemic, and continuing into 2021, if the economy fails to fully recover or there are additional shutdowns of non-essential businesses due to a resurgence of COVID-19 and the emergence and severity of COVID-19 variants, our SaaS and license revenue growth rate may be lower in future periods, with a corresponding reduction in hardware revenue, if some consumers or small businesses defer or cancel previously anticipated purchases. The challenges posed by COVID-19 on our business continue to evolve rapidly and we will continue to evaluate our business and operations in light of future developments.

On December 16, 2021, EnergyHub, Inc., one of our wholly-owned subsidiaries, acquired certain assets of an unrelated third party. Substantially all of the acquired assets consisted of developed technology. We believe the acquisition of the developed technology will continue to advance our load-shaping energy management solution allowing additional devices to participate in utility programs that reduce or shift power consumption during peak demand periods. In consideration for the purchase of the developed technology, we paid \$4.2 million in cash in December 2021, with the remaining \$0.9 million expected to be paid 18 months following the acquisition date, subject to offset for any indemnification obligations. Additionally, we incurred \$0.2 million in direct transaction costs related to legal fees during 2021 that were capitalized as a component of the consideration transferred. The combined \$5.3 million consideration related to developed technology was recorded as an intangible asset at the time of the asset acquisition and will be amortized on a straight-line basis over an estimated useful life of seven years.

Other Business Metrics

We regularly monitor a number of financial and operating metrics in order to measure our current performance and estimate our future performance. Our other business metrics may be calculated in a manner different from the way similar business metrics used by other companies are calculated and include the following (dollars in thousands):

	Year Ended December 31,		
	2021	2020	2019
SaaS and license revenue	\$ 460,372	\$ 393,257	\$ 337,375
Adjusted EBITDA	142,472	125,257	108,307
SaaS and license revenue renewal rate	94 %	94 %	94 %

SaaS and License Revenue

SaaS and license revenue is a GAAP measure that we use to measure our current performance and estimate our future performance. We believe that SaaS and license revenue is an indicator of the productivity of our existing service provider partners and their ability to activate and maintain subscribers using our intelligently connected property solutions, our ability to add new service provider partners reselling our solutions, the demand for our intelligently connected property solutions and the pace at which the market for these solutions is growing.

Adjusted EBITDA

Adjusted EBITDA is a non-GAAP measure that represents our net income before interest expense, interest income, other (expense) / income, net, (benefit from) / provision for income taxes, amortization and depreciation expense, stock-based compensation expense, secondary offering expense, acquisition-related expense and legal costs and settlement fees incurred in connection with non-ordinary course litigation and other disputes, particularly costs involved in ongoing intellectual property litigation. We do not consider these items to be indicative of our core operating performance. The non-cash items include amortization and depreciation expense, amortization of debt discount and debt issuance costs for the 2026 Notes included in interest expense and stock-based compensation expense related to restricted stock units and other forms of equity compensation, including, but not limited to, the sale of common stock. We do not adjust for ordinary course legal expenses resulting from maintaining and enforcing our intellectual property portfolio and license agreements.

We record interest expense primarily related to our debt facility and the 2026 Notes. We exclude interest expense in calculating Adjusted EBITDA because we believe that the exclusion of interest expense will provide for more meaningful information about our financial performance. We exclude interest income and other (expense) / income, net from Adjusted EBITDA because we do not consider it part of our ongoing results of operations. We exclude the impact related to our (benefit from) / provision for income taxes from Adjusted EBITDA because we do not consider this tax adjustment to be part of our ongoing results of operations.

GAAP requires that operating expenses include the amortization of acquired intangible assets, which principally include acquired customer relationships, developed technology and trade names. We exclude amortization of intangibles from Adjusted EBITDA because we do not consider amortization expense when we evaluate our ongoing business operations, nor do we factor amortization expense into our evaluation of potential acquisitions, or our measurement of the performance of those acquisitions. We believe that the exclusion of amortization expense enables the comparison of our performance to other companies in our industry as other companies may be more or less acquisitive than us and therefore, amortization expense may vary significantly by company based on their acquisition history. Although we exclude amortization of acquired intangible assets from Adjusted EBITDA, management believes that it is important for investors to understand that such intangible assets were recorded as part of purchase accounting and contribute to revenue generation.

We record depreciation primarily for investments in property and equipment. We exclude depreciation in calculating Adjusted EBITDA because we do not consider depreciation when we evaluate our ongoing business operations.

We exclude stock-based compensation expense, which relates to restricted stock units and other forms of equity incentives primarily awarded to employees of Alarm.com, because they are non-cash charges that we do not consider when assessing the operating performance of our business. Additionally, the determination of stock-based compensation expense can be calculated using various methodologies and is dependent upon subjective assumptions and other factors that vary on a company-by-company basis. Therefore, we believe that excluding stock-based compensation expense from Adjusted EBITDA improves the comparability of our results to the results of other companies in our industry.

We exclude secondary offering expense because we do not consider costs associated with the secondary offering to be indicative of our core operating performance and we believe that the exclusion of this expense allows us to better provide meaningful information about our operating performance, facilitates comparisons to our historical operating results and improves the comparability of our results to the results of other companies in our industry.

Included in operating expenses are incremental costs directly related to business and asset acquisitions as well as changes in the fair value of contingent consideration liabilities, when applicable. We exclude acquisition-related expense from Adjusted EBITDA because we believe that the exclusion of this expense allows us to better provide meaningful information about our operating performance, facilitates comparisons to our historical operating results, improves the comparability of our results to the results of other companies in our industry, and ultimately, we believe helps investors better understand the acquisition-related expense and the effects of the transaction on our results of operations.

We exclude non-ordinary course litigation expense because we do not consider legal costs and settlement fees incurred in litigation and litigation-related matters of non-ordinary course lawsuits and other disputes, particularly costs incurred in ongoing intellectual property litigation, to be indicative of our core operating performance. We do not adjust for ordinary course legal expenses, including those expenses resulting from maintaining and enforcing our intellectual property portfolio and license agreements.

Adjusted EBITDA is a key measure that our management uses to understand and evaluate our core operating performance and trends to generate future operating plans, to make strategic decisions regarding the allocation of capital, and to make investments in initiatives that are focused on cultivating new markets for our solutions. In particular, the exclusion of certain expenses in calculating Adjusted EBITDA facilitates comparisons of our operating performance on a period-to-period basis and, in the case of exclusion of acquisition-related adjustments and certain historical legal expenses, excludes items that we do not consider to be indicative of our core operating performance. Adjusted EBITDA is not a measure calculated in accordance with

GAAP and should not be considered in isolation from, or as a substitute for, financial information prepared in accordance with GAAP. Please see *Non-GAAP Measures* in this section for a discussion of the limitations of Adjusted EBITDA and a reconciliation of Adjusted EBITDA to net income, the most comparable GAAP measurement, for the years ended December 31, 2021, 2020 and 2019.

SaaS and License Revenue Renewal Rate

Our SaaS and license revenue renewal rate is an operating metric. We measure our SaaS and license revenue renewal rate on a trailing 12-month basis by dividing (a) the total SaaS and license revenue recognized during the trailing 12-month period from our subscribers on our Alarm.com platform who were subscribers on the first day of the period, by (b) total SaaS and license revenue we would have recognized during the period from those same subscribers assuming no terminations, or service level upgrades or downgrades. The SaaS and license revenue renewal rate represents both residential and commercial properties. Our SaaS and license revenue renewal rate is expressed as an annualized percentage and it is calculated across our entire subscriber base on the Alarm.com platform excluding subscribers of service providers that may use one of our other platforms as a substitute for the Alarm.com platform. Our service provider partners, who resell our services to our subscribers, have indicated that they typically have three to five-year service contracts with our subscribers. Our SaaS and license revenue renewal rate is calculated across our entire subscriber base on the Alarm.com platform, including subscribers whose contract with their service provider reached the end of its contractual term during the measurement period, as well as subscribers whose contract with their service provider has not reached the end of its contractual term during the measurement period, and is not intended to estimate the rate at which our subscribers renew their contracts with our service provider partners. We believe that our SaaS and license revenue renewal rate allows us to measure our ability to retain and grow our SaaS and license revenue and serves as an indicator of the lifetime value of our subscriber base.

Components of Operating Results

Our fiscal year ends on December 31. The key elements of our operating results include:

Revenue

We derive our revenue from three primary sources: the sale of cloud-based SaaS services on our integrated Alarm.com platform, the sale of licenses and services on the Software platform and the sale of hardware products. We sell our platform and hardware solutions to service provider partners that resell our solutions and hardware to residential and commercial property owners, who are the service provider partners' customers.

SaaS and License Revenue. We generate the majority of our SaaS and license revenue primarily from monthly fees charged to our service provider partners on a per subscriber basis for access to our cloud-based intelligently connected property platform and related solutions. Our fees per subscriber vary based upon the service plan and features utilized.

We offer multiple service level packages for our platform solutions including a range of solutions and a range of a la carte add-ons for additional features. The fee paid by our service provider partners each month for the delivery of our solutions is based on the combination of packages and add-ons enabled for each subscriber. We utilize tiered pricing plans where our service provider partners may receive prospective pricing discounts driven by volume.

We also generate SaaS and license revenue from the fees paid to us when we license our intellectual property to third parties for use of our patents. In addition, in certain markets, our EnergyHub subsidiary sells its demand response service for an annual service fee, with pricing based on the number of subscribers or amount of aggregate electricity demand made available for a utility's or market's control.

Software License Revenue. Our SaaS and license revenue also includes our software license revenue from monthly fees charged to service providers on a per subscriber basis for access to our Software platform. The non-hosted software for interactive security, automation and related solutions is typically deployed and operated by the service provider in its own network operations center. Our agreements for the Software platform solution typically include software and services, such as post-contract customer support, or PCS. Software license revenue included in SaaS and license revenue is expected to continue to decline over time as we transition subscribers to our cloud-based hosted platform.

Hardware and Other Revenue. We generate hardware and other revenue primarily from the sale of video cameras, video recorders and cellular radio modules that provide access to our cloud-based platforms and, to a lesser extent, the sale of other devices, including image sensors, gunshot detection sensors and peripherals. We primarily transfer hardware to our customers upon delivery to the customer, which corresponds with the time at which the customer obtains control of the hardware. We record a reserve against revenue for hardware returns based on historical returns.

Our hardware and other revenue also includes our revenue from the sale of perpetual licenses that provide our customers in the commercial market the right to use our OpenEye video surveillance software for an indefinite period of time in exchange for a

one-time license fee, which is generally paid at contract inception. Our hardware and other revenue also includes our revenue from Shooter Detection Systems related to the sale of licenses that provide our customers the right to use our indoor gunshot detection solution in exchange for license fees, which are generally paid at contract inception. Hardware and other revenue may also include activation fees charged to some of our service provider partners for activation of a new subscriber account on our platforms, as well as fees paid by service provider partners for our marketing services. The decision whether to charge an activation fee is based in part on the expected number of subscribers to be added by our service provider partners and as a result, many of our largest service provider partners do not pay an activation fee.

As a result of the COVID-19 pandemic, governments, public institutions and other organizations in many countries and localities where COVID-19 has been detected have taken certain emergency measures, and may from time to time take additional emergency measures, to combat its spread, including imposing lockdowns, shelter-in-place orders, quarantines, restrictions on travel and gatherings and the extended shutdown non-essential businesses that cannot be conducted remotely. These emergency measures remain in place to varying degrees. We have seen and anticipate we may continue to see disruption to our hardware supply chain, including limited inventory availability, increased lead times, and shipping delays, due to the impact of COVID-19 on manufacturing, production and global transportation, as well as to our sales channels due to restrictions on our service providers' ability to meet with residential and commercial property owners who use our solutions, reluctance of service providers and property owners to meet even where such restrictions have been lifted and general economic conditions. In addition, the COVID-19 pandemic has resulted in a global slowdown of economic activity and a recession in the United States and the economic situation remains fluid as parts of the economy appear to be recovering while others continue to struggle. While vaccines have been approved for use in the United States and in many other countries, and vaccination efforts are well underway, it remains difficult to assess or predict the ultimate duration and economic impact of the COVID-19 pandemic due to a resurgence of COVID-19 and the emergence and severity of COVID-19 variants. As the future impact on global supply chains from COVID-19 is difficult to predict, the extent to which COVID-19 may negatively affect our hardware revenue is uncertain; however, if the economy fails to fully recover or there are additional shutdowns of non-essential businesses due to a resurgence of COVID-19 and the emergence and severity of COVID-19 variants, our SaaS and license revenue growth rate may be lower in future periods, with a corresponding reduction in hardware revenue, if some consumers or small businesses defer or cancel previously anticipated purchases.

Cost of Revenue

Our cost of SaaS and license revenue primarily includes the amounts paid to wireless network providers and, to a lesser extent, the costs of running our network operations centers which are expensed as incurred, as well as patent and royalty costs in connection with technology licensed from third-party providers and amounts paid to distributed energy resource providers. Our cost of SaaS and license revenue also includes our cost of software license revenue, which primarily includes the payroll and payroll-related costs of the department dedicated to providing service exclusively to those service providers that host the Software platform. Our cost of hardware and other revenue primarily includes cost of raw materials, tooling and amounts paid to our third-party manufacturer for production and fulfillment of our cellular radio modules and image sensors, and procurement costs for our video cameras, video recorders and gunshot detection sensors, which we purchase from an original equipment manufacturer, and other devices. Our cost of hardware and other revenue also includes royalty costs in connection with technology licensed from third-party providers.

We record the cost of SaaS and license revenue as expenses are incurred, which corresponds to the delivery period of our services to our subscribers. We record the cost of hardware and other revenue primarily when the hardware and other services are delivered to the service provider partner, which occurs when control of the hardware and other services transfers to the service provider partner. Our cost of revenue excludes amortization and depreciation shown in operating expenses.

Since 2019, the U.S. government has implemented and imposed significant changes to U.S. trade policy with respect to China. Tariffs have subjected certain Alarm.com products manufactured overseas to additional import duties of up to 25%. The amount of the import tariff and the number of products subject to tariffs have changed numerous times based on action by the U.S. government. Approximately one-fifth to one-half of the hardware products that we sell to our service provider partners are imported from China and could be subject to increased tariffs. While the additional import duties have resulted in an increase to our cost of hardware revenue, these import duties had a modest impact on hardware revenue margins. If tariffs are increased or are expanded to apply to more of our products, such actions may increase our cost of hardware revenue and reduce our hardware revenue margins in the future. We continue to monitor the changes in tariffs.

Our costs of hardware revenue increased during the second half of 2021 primarily due to an increase in costs for freight shipments, including expedited shipping costs, as well as an increase in inventory component costs. We currently expect our hardware revenue margins to increase in 2022 as compared to the hardware revenue margins we experienced during the fourth quarter of 2021 as a result of price increases we have implemented on some of our products in 2022 to cover some of our increases in costs.

Operating Expenses

Our operating expenses consist of sales and marketing, general and administrative, research and development and amortization and depreciation expenses. Salaries, bonuses, stock-based compensation, benefits and other personnel related costs are the most significant components of each of these expense categories, excluding amortization and depreciation. We include stock-based compensation expense in connection with the grant of restricted stock units and other forms of equity compensation, including equity compensation with performance conditions, in the applicable operating expense category based on the respective equity award recipient's function (sales and marketing, general and administrative or research and development). We grew from 1,404 employees as of January 1, 2021 to 1,500 employees as of December 31, 2021, and we expect to continue to hire new employees to support the projected future growth of our business.

Sales and Marketing Expense. Sales and marketing expense consists primarily of personnel and related expenses for our sales and marketing teams, including salaries, bonuses, stock-based compensation, benefits, travel, and commissions. Our sales and marketing teams engage in sales, account management, service provider partner support, advertising, promotion of our products and services and marketing.

The number of employees in sales and marketing functions increased from 461 as of January 1, 2021 to 476 as of December 31, 2021. We expect to continue to invest in our sales and marketing activities to expand our business both domestically and internationally. We intend to increase the size of our sales force and our service provider partner support team to provide additional support to our existing service provider partner base to drive their productivity in selling our solutions as well as to enroll new service provider partners in North America and in international markets.

General and Administrative Expense. General and administrative expense consists primarily of personnel and related expenses for our administrative, legal, human resources, finance and accounting personnel, including salaries, bonuses, stock-based compensation, benefits and other personnel costs. Additional expenses included in this category are legal costs, including those that are incurred to defend and license our intellectual property, as well as non-personnel costs, such as travel related expenses, rent, subcontracting and professional fees, audit fees, tax services, and insurance expenses. Also included in general and administrative expenses are credit losses and acquisition-related expenses, which consist primarily of legal, accounting and professional service fees directly related to acquisitions and valuation gains or losses on acquisition-related contingent liabilities.

The number of employees in general and administrative functions increased from 163 as of January 1, 2021 to 187 as of December 31, 2021. Excluding intellectual property litigation and acquisition-related expense, we expect general and administrative costs to increase prospectively as our business grows. This includes cost increases related to human resources, accounting, finance, and legal personnel, additional external legal, audit fees and other expenses associated with regulations governing public companies. While somewhat unpredictable, we also expect to continue to incur costs related to litigation involving intellectual property. See the section of this Annual Report titled "Legal Proceedings" for additional information regarding litigation matters.

Research and Development Expense. Research and development expense consists primarily of personnel and related expenses for our employees working on our product development and software and device engineering teams, including salaries, bonuses, stock-based compensation, benefits and other personnel costs. Also included are non-personnel costs such as consulting and professional fees paid to third-party development resources as well as acquisition costs of IPR&D with no alternative future use.

The number of employees in research and development functions grew from 780 as of January 1, 2021 to 837 as of December 31, 2021. Our research and development efforts are focused on innovating new features and enhancing the functionality of our platforms and the solutions we offer to our service provider partners and subscribers. We will also continue to invest in efforts to extend our platforms to adjacent markets and internationally to maintain our leadership position in the development of intelligently connected property technology, and continued enhancement of our Partner Services Platform, a comprehensive suite of enterprise-grade business management solutions for our service provider partners.

Amortization and Depreciation. Amortization and depreciation consists of amortization of intangible assets originating from our acquisitions as well as our internally-developed capitalized software. Our depreciation expense is related to investments in property and equipment. Acquired intangible assets include developed technology, customer related intangibles, trademarks and trade names. We expect in the near term that amortization and depreciation may fluctuate based on our acquisition activity, development of our platforms and capitalized expenditures.

Interest Expense

We record interest expense associated with our 2026 Notes and our 2017 Facility, which was terminated in January 2021. Interest expense is expected to decrease in 2022, as compared to 2021, due to the adoption of Accounting Standards Update, or ASU, 2020-06, "Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity" as of

January 1, 2022, which will eliminate the non-cash interest expense related to the amortization of the debt discount associated with the equity component for 2026 Notes issued on January 20, 2021. However, there will be no impact to our liquidity or cash flows as a result of the adopting this guidance.

Interest Income

Interest income consists of interest income earned on our cash and cash equivalents and our notes receivable.

Other (Expense) / Income, Net

Other (expense) / income, net primarily consists of gains earned on the sale of our investments, changes in the fair value of our investments and gains earned on our notes receivable and conversion of our outstanding notes receivable balance into an equity investment, partially offset by an impairment of one of our investments and one of our intangible assets.

(Benefit from) / Provision for Income Taxes

We are subject to U.S. federal, state and local income taxes as well as foreign income taxes. During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. As a result, we recognize tax liabilities based on estimates of whether additional taxes will be due. Our effective tax rates were below the statutory rate primarily due to tax windfall benefits from employee stock-based payment transactions, research and development tax credits claimed and foreign derived intangible income deductions, partially offset by the impact of foreign withholding taxes, nondeductible compensation and other nondeductible expenses. We recognize excess tax windfall benefits on a discrete basis during the quarter in which they occur, and we anticipate that our effective tax rate will vary from quarter to quarter depending on our stock price and exercises of stock options under our equity incentive plans each period.

Results of Operations

The following table sets forth our selected consolidated statements of operations and data as a percentage of revenue for the periods presented (in thousands):

Consolidated Statements of Operations

	Year Ended December 31,					
	2021		2020		2019	
	\$	%	\$	%	\$	%
Revenue:						
SaaS and license revenue	\$ 460,372	61 %	\$ 393,257	64 %	\$ 337,375	67 %
Hardware and other revenue	288,597	39	224,746	36	164,988	33
Total revenue	748,969	100	618,003	100	502,363	100
Cost of revenue ⁽¹⁾ :						
Cost of SaaS and license revenue	66,758	9	53,539	9	50,066	10
Cost of hardware and other revenue	239,141	32	173,889	28	133,533	27
Total cost of revenue	305,899	41	227,428	37	183,599	37
Operating expenses:						
Sales and marketing ⁽²⁾	86,664	11	75,967	12	61,815	12
General and administrative ⁽²⁾	87,406	12	78,643	13	69,959	14
Research and development ⁽²⁾	177,713	24	152,147	25	114,443	23
Amortization and depreciation	29,715	4	27,520	4	22,134	4
Total operating expenses	381,498	51	334,277	54	268,351	53
Operating income	61,572	8	56,298	9	50,413	10
Interest expense	(15,956)	(2)	(2,596)	—	(2,974)	(1)
Interest income	587	—	870	—	4,922	1
Other (expense) / income, net	(134)	—	25,588	4	6,535	2
Income before income taxes	46,069	6	80,160	13	58,896	12
(Benefit from) / provision for income taxes	(5,106)	(1)	3,500	1	5,566	1
Net income	\$ 51,175	7 %	\$ 76,660	12 %	\$ 53,330	11 %

(1) Excludes amortization and depreciation shown in operating expenses below.

(2) Operating expenses include stock-based compensation expense as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Stock-based compensation expense data:			
Sales and marketing	\$ 4,432	\$ 3,025	\$ 2,075
General and administrative	9,941	7,996	6,474
Research and development	24,321	18,155	12,054
Total stock-based compensation expense	\$ 38,694	\$ 29,176	\$ 20,603

The following table sets forth the components of cost of revenue as a percentage of revenue:

	Year Ended December 31,		
	2021	2020	2019
Components of cost of revenue as a percentage of revenue:			
Cost of SaaS and license revenue as a percentage of SaaS and license revenue	15%	14%	15%
Cost of hardware and other revenue as a percentage of hardware and other revenue	83%	77%	81%
Total cost of revenue as a percentage of total revenue	41%	37%	37%

Comparison of Years Ended December 31, 2021 to December 31, 2020

The following tables in this section set forth our selected consolidated statements of operations (in thousands), data for the percentage change and data as a percentage of revenue for the years ended December 31, 2021 and 2020.

Revenue

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
Revenue:			
SaaS and license revenue	\$ 460,372	\$ 393,257	17 %
Hardware and other revenue	288,597	224,746	28
Total revenue	\$ 748,969	\$ 618,003	21 %

The \$131.0 million increase in total revenue in 2021 as compared to 2020 was the result of a \$67.1 million, or 17%, increase in our SaaS and license revenue and a \$63.9 million, or 28%, increase in our hardware and other revenue. Our software license revenue included within SaaS and license revenue decreased \$5.7 million to \$32.3 million in 2021 as compared to \$38.0 million during 2020, primarily due to the result of the continuing transition of customers from non-hosted software to our cloud based hosted platform. The SaaS and license revenue for the Alarm.com segment increased \$60.0 million in 2021 as compared to 2020 primarily due to growth in our subscriber base, including the revenue impact from subscribers we added in 2020. The SaaS and license revenue for our Other segment increased \$7.1 million in 2021 as compared to 2020 primarily due to an increase in sales of our energy management and demand response solutions. The increase in hardware and other revenue in 2021 as compared to 2020 was primarily from the \$64.9 million increase in hardware and other revenue, net of intersegment eliminations, for the Alarm.com segment due to an increase in the volume of video cameras and video recorders sold, as well as the increased revenue from our acquisition of SDS on December 14, 2020. Hardware and other revenue, net of intersegment eliminations, in our Other segment decreased 13%, or \$1.0 million, in 2021 as compared to 2020 primarily due to a decrease in sales related to our property management solution.

Cost of Revenue

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
Cost of revenue ⁽¹⁾ :			
Cost of SaaS and license revenue	\$ 66,758	\$ 53,539	25 %
Cost of hardware and other revenue	239,141	173,889	38
Total cost of revenue	\$ 305,899	\$ 227,428	35 %
<i>% of total revenue</i>	41 %	37 %	

(1) Excludes amortization and depreciation shown in operating expenses.

The \$78.5 million increase in cost of revenue in 2021 as compared to 2020 was the result of a \$65.3 million, or 38%, increase in cost of hardware and other revenue and a \$13.2 million, or 25%, increase in cost of SaaS and license revenue. Our cost of software license revenue included within cost of SaaS and license revenue decreased \$0.2 million to \$1.1 million during 2021 as compared to \$1.3 million during 2020. The cost of hardware and other revenue for the Alarm.com segment increased \$66.1 million in 2021 as compared to 2020 primarily due to an increase in the number of hardware units shipped and an increase in costs for freight shipments and inventory component costs. The cost of SaaS and license revenue for the Alarm.com segment increased \$9.7 million in 2021 as compared to 2020 primarily due to the growth in our subscriber base, which drove a corresponding increase in amounts paid to wireless network providers. The cost of SaaS and license revenue for the Other

segment increased \$3.5 million in 2021 as compared to 2020 primarily due to an increase in sales of our energy management and demand response solutions, which drove a corresponding increase in amounts paid to distributed energy resource providers.

Cost of hardware and other revenue as a percentage of hardware and other revenue was 83% and 77% for the years ended December 31, 2021 and 2020, respectively. The increase in cost of hardware and other revenue as a percentage of hardware and other revenue in 2021 as compared to 2020 is primarily due to the increase in costs for freight shipments and inventory component costs as well as a reflection of the mix of product sales during the periods. Cost of SaaS and license revenue as a percentage of SaaS and license revenue was 15% and 14% for the years ended December 31, 2021 and 2020, respectively. The increase in cost of SaaS and license revenue as a percentage of SaaS and license revenue in 2021 as compared to 2020 is a reflection of the mix of sales of services during the periods. Cost of software license revenue as a percentage of software license revenue was 4% and 3% for the years ended December 31, 2021 and 2020, respectively.

Sales and Marketing Expense

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
Sales and marketing	\$ 86,664	\$ 75,967	14 %
<i>% of total revenue</i>	11 %	12 %	

The \$10.7 million increase in sales and marketing expense in 2021 as compared to 2020 was primarily due to a \$7.9 million increase in personnel and related costs for our Alarm.com segment, including salary, benefits, stock-based compensation and travel expenses, attributable in part to increases in the headcount for our sales team to support our growth. Sales and marketing expense from our Other segment increased \$2.4 million in 2021 as compared to 2020, primarily due to increases in personnel and related costs, attributable in part to increases in the expected payout of the subsidiary long-term incentive plan as well as increases in the headcount for our sales team. The overall number of employees in our sales and marketing teams increased from 461 as of December 31, 2020 to 476 as of December 31, 2021.

General and Administrative Expense

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
General and administrative	\$ 87,406	\$ 78,643	11 %
<i>% of total revenue</i>	12 %	13 %	

The \$8.8 million increase in general and administrative expense in 2021 as compared to 2020 was primarily due to a \$5.5 million increase in personnel and related costs for our Alarm.com segment due in part to an increase in employee headcount to support our operational growth as well as a \$2.6 million decrease to the contingent consideration liability that occurred in 2020 which did not occur in 2021. See Note 10 to our consolidated financial statements for details regarding the changes to the contingent consideration liability. Additionally, the increase in general and administrative expense in 2021 as compared to 2020 was due to a \$1.8 million increase in legal expenses within our Alarm.com segment resulting from intellectual property litigation. These increases were partially offset by a \$1.0 million decrease in the provision for credit losses for our Alarm.com segment in 2021 as compared to a \$1.5 million increase in the provision for credit losses for our Alarm.com segment in 2020. General and administrative expenses from our Other segment remained relatively consistent during 2021 as compared to 2020. The overall number of employees in general and administrative functions increased from 163 as of December 31, 2020 to 187 as of December 31, 2021.

Research and Development Expense

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
Research and development	\$ 177,713	\$ 152,147	17 %
<i>% of total revenue</i>	24 %	25 %	

The \$25.6 million increase in research and development expense in 2021 as compared to 2020 was primarily due to a \$19.1 million increase in personnel and related costs for our Alarm.com segment, attributable in part to an increase in headcount of employees in research and development functions as well as a \$2.0 million increase in our expenses for external consultants. These increases were partially offset by \$4.4 million of in-process research and development we acquired in 2020 which did not occur in 2021. Research and development expense from our Other segment increased by \$7.2 million in 2021 as compared to 2020 primarily due to a \$4.2 million increase in our personnel and related costs, including salary, benefits and stock-based compensation and a \$2.7 million increase in expense for external consultants. The overall number of employees in research and development functions increased from 780 as of December 31, 2020 to 837 as of December 31, 2021.

Amortization and Depreciation

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
Amortization and depreciation	\$ 29,715	\$ 27,520	8 %
<i>% of total revenue</i>	4 %	4 %	

Amortization and depreciation increased \$2.2 million in 2021 as compared to 2020, primarily due to the intangible assets that were acquired in connection with the purchase of SDS on December 14, 2020.

Interest Expense

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
Interest expense	\$ (15,956)	\$ (2,596)	515 %
<i>% of total revenue</i>	(2)%	— %	

Interest expense increased \$13.4 million in 2021 as compared to 2020, primarily due to the amortization of the debt discount and debt issuance costs related to the 2026 Notes.

Interest Income

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
Interest income	\$ 587	\$ 870	(33)%
<i>% of total revenue</i>	— %	— %	

Interest income decreased \$0.3 million in 2021 as compared to 2020, primarily due to a decrease in interest rates, partially offset by interest income earned on the cash from the proceeds of the 2026 Notes.

Other (Expense) / Income, Net

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
Other (expense) / income, net	\$ (134)	\$ 25,588	(101)%
<i>% of total revenue</i>	— %	4 %	

Other (expense) / income, net changed by \$25.7 million during 2021 as compared to 2020, primarily due to recording a gain on the sale of an investment in one of our platform partners of \$24.7 million within our Alarm.com segment in 2020 which did not occur in 2021 as well as recording a gain on the investment in one of our technology partners of \$0.7 million within our Alarm.com segment in 2020 which did not occur in 2021.

(Benefit from) / Provision for Income Taxes

	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
(Benefit from) / provision for income taxes	\$ (5,106)	\$ 3,500	(246)%
% of total revenue	(1)%	1 %	

The (benefit from) / provision for income taxes changed by \$8.6 million in 2021 as compared to 2020. Our effective tax rate was (11.1)% in 2021 as compared to 4.4% in 2020. The change in the (benefit from) / provision for income taxes was primarily due to increased tax windfall benefits from employee stock-based payment transactions, changes in estimated research and development tax credits and a decrease in income before income taxes in 2021 as compared to 2020.

Comparison of Years Ended December 31, 2020 to December 31, 2019

A comparison of the years ended December 31, 2020 and 2019 has been omitted from this Form 10-K, but may be found in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of our Form 10-K for the fiscal year ended December 31, 2020, filed with the SEC on February 25, 2021.

Segment Information

We have two reportable segments: Alarm.com and Other. Our Alarm.com segment represents our cloud-based and Software platforms for the intelligently connected property and related solutions that contributed 95%, 94% and 93% of our revenue, net of intersegment eliminations, for the years ended December 31, 2021, 2020 and 2019, respectively. Our Other segment is focused on researching, developing and offering residential and commercial automation solutions and energy management products and services in adjacent markets. The consolidated subsidiaries that make up our Other segment are in the investment stage and have incurred significant operating expenses relative to their revenue.

Our Alarm.com segment increased from 1,290 employees as of January 1, 2021 to 1,363 employees as of December 31, 2021. Our Other segment increased from 114 employees as of January 1, 2021 to 137 employees as of December 31, 2021. Inter-segment revenue includes sales of hardware between our segments.

The following table presents our revenue, inter-segment revenue and operating expenses by segment (in thousands):

	Year Ended December 31,								
	2021			2020			2019		
	SaaS and License Revenue	Hardware and Other Revenue	Operating Expenses	SaaS and License Revenue	Hardware and Other Revenue	Operating Expenses	SaaS and License Revenue	Hardware and Other Revenue	Operating Expenses
Alarm.com	\$ 426,823	\$ 284,721	\$ 348,700	\$ 366,815	\$ 219,826	\$ 310,960	\$ 317,580	\$ 156,265	\$ 249,097
Other	33,549	9,275	33,214	26,442	14,254	23,317	19,795	20,919	19,254
Intersegment Alarm.com	—	(3,089)	(416)	—	(3,093)	—	—	(4,301)	—
Intersegment Other	—	(2,310)	—	—	(6,241)	—	—	(7,895)	—
Total	<u>\$ 460,372</u>	<u>\$ 288,597</u>	<u>\$ 381,498</u>	<u>\$ 393,257</u>	<u>\$ 224,746</u>	<u>\$ 334,277</u>	<u>\$ 337,375</u>	<u>\$ 164,988</u>	<u>\$ 268,351</u>

Our SaaS and license revenue for the Alarm.com segment included software license revenue of \$32.3 million, \$38.0 million and \$43.4 million for the years ended December 31, 2021, 2020 and 2019, respectively. There was no software license revenue recorded for the Other segment during the years ended December 31, 2021, 2020 and 2019.

Critical Accounting Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue, costs and expenses during the reported period. In accordance with GAAP, we base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. Because of the use of estimates inherent in the financial reporting process in light of the continuing uncertainty arising from the COVID-19 pandemic, actual results could differ from those estimates and any such differences may be material. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows

will be affected. Our most critical accounting estimates are summarized below. See Note 2 to our consolidated financial statements for a description of the following critical accounting estimates and our other significant accounting estimates.

Revenue

We derive our revenue from three primary sources: the sale of cloud-based SaaS services on our integrated Alarm.com platform, the sale of licenses and services on the Software platform and the sale of hardware products. We sell our platform and hardware solutions to service provider partners that resell our solutions and hardware to residential and commercial property owners, who are the service provider partners' customers.

We have variable consideration in the form of retrospective volume discounts, rebate incentives, restocking fees and assurance-type warranties, which contain uncertainties and require us to make estimates of the amount of consideration to which we will be entitled. The significant inputs related to our estimates of variable consideration include the volume and amount of products and services sold historically and expected to be sold in the future, the availability and performance of our services and the historical and expected number of returns. We record a reserve against revenue for hardware returns based on historical returns. For each of the years ended December 31, 2021, 2020 and 2019, our reserve against revenue for hardware returns was approximately 1% of hardware and other revenue. We evaluate our hardware reserve on a quarterly basis or if there is an indication of significant changes in return experience. Historically, our returns of hardware have not significantly differed from our estimated reserve.

If we enter into contracts that contain multiple promised services, we evaluate which of the promised services represent separate performance obligations based on whether or not the promised services are distinct and whether or not the services are separable from other promises in the contract. If these criteria are met, then we allocate the transaction price to the performance obligations using the relative stand-alone selling price method at contract inception. In determining the relative estimated selling prices, we consider market conditions, entity-specific factors and information about the customer or class of customer. Any discount within the contract is allocated proportionately to all of the separate performance obligations in the contract unless the terms of discount relate specifically to the entity's efforts to satisfy some but not all of the performance obligations.

While variable consideration assumptions and assumptions regarding the relative stand-alone selling price are specific to each contract, we did not make any material changes to these assumptions for the year ended December 31, 2021. We do not expect any material changes in the near term to the underlying assumptions used to recognize revenue during the year ended December 31, 2021. However, if changes in these assumptions occur, and, should those changes be significant, they could have a material impact on our SaaS and license revenue as well as our hardware and other revenue.

Fair Value Measurements

The accounting standard for fair value measurements provides a framework for measuring fair value and requires disclosures regarding fair value measurements. Fair value is defined as the price that would be received for an asset or the exit price that would be paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants on the measurement date.

The liability for the subsidiary long-term incentive plan consists of the potential cash payment contingent upon meeting certain financial milestones related to the agreement established with certain employees of one of our subsidiaries. During 2020 and 2021, we estimated the fair value of the liability by using a Monte Carlo simulation model which involves several Level 3 unobservable inputs. The significant unobservable inputs used in the valuation as of December 31, 2021 included a weighted average revenue volatility of 7.5% and a revenue risk adjustment of 2.4%.

We do not expect any significant changes to the underlying assumptions used to determine the unobservable inputs used to calculate the fair value of the liability related to the subsidiary long-term incentive plan as of December 31, 2021. However, if changes in these assumptions occur, and, should those changes be significant, we may be exposed to increases or decreases in operating expenses.

The liability for the contingent consideration contains uncertainties and consisted of the potential earn-out payment related to our acquisition of 85% of the issued and outstanding capital stock of OpenEye on October 21, 2019. The earn-out payment was contingent on the satisfaction of certain calendar 2020 revenue targets and had a maximum potential payment of up to \$11.0 million. During parts of 2019 and 2020, we accounted for the contingent consideration using fair value and established a liability for the future earn-out payment based on an estimation of revenue attributable to perpetual licenses and subscription licenses over the 2020 calendar year. We estimated the fair value of the liability by using a Monte Carlo simulation model for determining each of the projected measures by using an expected distribution of potential outcomes. The contingent consideration liability was valued with Level 3 significant unobservable inputs, including the revenue volatility and the discount rate. All contingencies related to the contingent consideration liability were resolved as of December 31, 2020 and no further estimates were necessary as of December 31, 2021.

We did not make any material changes in the accounting methodology used to determine the fair value of the contingent consideration liability for the year ended December 31, 2021. We do not expect any material changes in the near term to the underlying assumptions used to determine the significant unobservable inputs used to calculate the fair value of the contingent consideration given that all contingencies have been resolved as of December 31, 2020.

Stock-Based Compensation

We compensate our executive officers, board of directors, employees and consultants with stock-based compensation plans under our 2015 Equity Incentive Plan, or 2015 Plan. We record stock-based compensation expense related to time-based restricted stock units based upon the award's grant date fair value and use an accelerated attribution method, net of actual forfeitures, in which compensation cost for each vesting tranche in an award is recognized ratably from the service inception date to the vesting date for that tranche. We record stock-based compensation expense related to performance-based restricted stock units based on management's determination of the probable outcome of the performance conditions, which requires considerable judgment. We estimate the fair value of each option granted on the date of grant using the Black-Scholes option-pricing model, which contains uncertainties and requires us to estimate the risk-free interest rate, expected term, expected stock price volatility and dividend yield. The risk-free interest rate assumption is based upon observed interest rates for constant maturity U.S. Treasury securities consistent with the expected term of our stock options. We use the "simplified method" to calculate the expected term, which is presumed to be the mid-point between the vesting date and the end of the contractual term. Beginning in November 2019, the expected volatility for options granted is based on historical volatilities of our stock over the estimated expected term of the stock options. The expected volatility for options granted prior to November 2019 was based on historical volatilities of our stock and publicly traded stock of comparable companies over the estimated expected term of the stock options.

We did not make any material changes to the underlying assumptions used to calculate stock-based compensation expense for the year ended December 31, 2021 and we do not expect any material changes in the near term to the underlying assumptions used to calculate stock-based compensation expense for the year ended December 31, 2021. However, if changes in these assumptions occur, and, should those changes be significant, they could have a material impact on our stock-based compensation expense.

Business Combinations

We are required to allocate the purchase price of acquired companies to the identifiable tangible and intangible assets acquired and liabilities assumed at the acquisition date based upon their estimated fair values. This valuation contains uncertainties and requires management to apply significant judgment in estimating the fair value of long-lived and intangible assets acquired, which involves the use of significant estimates and assumptions.

Significant estimates and assumptions in valuing intangible assets include estimates about future expected cash flows, discount rates, attrition rates related to acquired customer relationships, royalty rates and obsolescence factors related to acquired developed technology and royalty rates relate to acquired trade names.

We did not make any material changes to the underlying assumptions used as of the acquisition date to calculate the purchase price of the acquisition of SDS. We do not expect any material changes in the near term to the underlying assumptions used to calculate purchase price of the acquisition of SDS for the year ended December 31, 2021 given that the purchase price allocation was finalized during 2021.

Goodwill, Intangible Assets and Long-lived Assets

Goodwill

We perform our annual impairment review of goodwill on October 1 and when a triggering event occurs between annual impairment tests. We test our goodwill at the reporting unit level. We perform either a qualitative analysis or a quantitative analysis every year depending on the changes to our goodwill balance as well as changes in our business and the economy. Qualitative factors we consider include, but are not limited to, macroeconomic conditions, industry and market conditions, company specific events, changes in circumstances and market capitalization.

For our 2021 annual impairment review, we performed a qualitative assessment for our Alarm.com reporting unit, our only reporting unit with a goodwill balance. We did not make any material changes to the underlying assumptions used in our qualitative assessment of our goodwill as of October 1, 2021 and we do not expect any material changes in the near term to the underlying assumptions used in our qualitative assessment of our goodwill as of October 1, 2021. However, if changes in these assumptions occur, including as a result of performing a quantitative assessment instead of a qualitative assessment, and, should those changes be significant, they could have a material impact on our goodwill and potentially our other (expense) / income, net, if those significant changes result in an impairment.

Intangible Assets and Long-lived Assets

Intangible assets are initially valued at fair value using generally accepted valuation methods appropriate for the type of intangible asset. Intangible assets with definite lives are amortized over their estimated useful lives and are reviewed for impairment if indicators of impairment arise.

We evaluate the recoverability of our long-lived assets for impairment whenever events or circumstances indicate that the carrying amount of the assets may not be recoverable. Recoverability of long-lived assets are measured by comparison of the carrying amount of the asset to the future undiscounted cash flows the asset is expected to generate. If the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired asset.

For the year ended December 31, 2021, we determined there was an impairment of \$0.1 million for an intangible asset acquired in 2014 related to customer relationships that no longer existed after December 31, 2021. There were no other indicators of impairment of our intangible assets with definite lives or long-lived assets. We did not make any material changes to the underlying assumptions used in our assessment of intangible assets and long-lived assets for the year ended December 31, 2021 and we do not expect any material changes in the near term to the underlying assumptions used in our assessment of intangible assets and long-lived assets for the year ended December 31, 2021. However, if changes in these assumptions occur, and, should those changes be significant, they could have a material impact on our intangible assets and long-lived assets and potentially our other (expense) / income, net, if those significant changes result in an impairment.

Accounting for Income Taxes

We account for income taxes under the asset and liability method as required by accounting standards codification, or ASC 740, "Income Taxes," which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that are included in the financial statements.

We record net deferred tax assets to the extent we believe these assets will more likely than not be realized. In making such a determination, we consider all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations.

We are subject to income taxes in the United States and foreign jurisdictions based upon our business operations in those jurisdictions. Significant judgment is required in evaluating uncertain tax positions. We record uncertain tax positions in accordance with ASC 740-10 on the basis of a two-step process whereby (1) we determine whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position, and (2) with respect to those tax positions that meet the more-likely-than-not recognition threshold, we recognize the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority.

We did not make any material changes to the underlying assumptions used to calculate deferred tax assets and liabilities as well as uncertain tax positions for the year ended December 31, 2021 and we do not expect any material changes in the near term to the underlying assumptions used to calculate deferred tax assets and liabilities as well as uncertain tax positions for the year ended December 31, 2021. However, if changes in these assumptions occur, and, should those changes be significant, they could have a material impact on our deferred tax assets and liabilities as well as our (benefit from) / provision for income taxes.

Convertible Senior Notes

In accounting for the issuance of our 2026 Notes, we separate the notes into liability and equity components. The carrying amount of the liability component is calculated by measuring the fair value of a similar liability that does not have an associated convertible feature, using a discounted cash flow model with a risk adjusted yield. The carrying amount of the equity component representing the conversion option is determined by deducting the fair value of the liability component from the par value of the notes as a whole. This difference between the aggregate principal amount and the liability component represents a debt discount that is amortized to interest expense using the effective interest method over the term of the notes. Transaction costs attributable to the liability component are netted with the liability component and amortized to interest expense using the effective interest method over the term of the notes. Transaction costs attributable to the equity component are netted with the equity component of the notes in additional paid-in capital in the consolidated balance sheets.

We did not make any material changes to the underlying assumptions used to separate the notes into liability and equity components for the year ended December 31, 2021. We will adopt ASU 2020-06, "Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity" on January 1, 2022, using the modified retrospective approach. We will record a reclassification from equity to debt through an adjustment upon adoption that will decrease additional paid-in capital by \$56.5 million, net of tax; decrease deferred tax liabilities and deferred tax assets by \$15.8 million and \$0.4 million, respectively; increase convertible senior notes, net by \$61.9 million; and increase retained earnings by \$10.0 million, net of tax.

Specific to the 2026 Notes, we will also record less interest expense in 2022 and beyond 2022 as compared to 2021, due to eliminating the amortization of the debt discount on the equity component, which represented the embedded conversion feature. Additionally, this guidance requires that we adopt the if-converted method for computing diluted earnings per share, which will increase our diluted weighted average common shares outstanding and impact our earnings per share upon adoption. There will be no impact to our liquidity or cash flows as a result of adopting this guidance.

Recent Accounting Pronouncements

See Note 2 of our consolidated financial statements for information related to recently issued accounting standards.

Liquidity and Capital Resources

Working Capital

The following table summarizes our cash and cash equivalents, accounts receivable, net and working capital, for the periods indicated (in thousands):

	As of December 31,	
	2021	2020
Cash and cash equivalents	\$ 710,621	\$ 253,459
Accounts receivable, net	105,548	83,326
Working capital	788,281	307,170

We define working capital as current assets minus current liabilities. Our cash and cash equivalents as of December 31, 2021 are available for working capital purposes. We do not enter into investments for trading purposes, and our investment policy is to invest any excess cash in short term, highly liquid investments that limit the risk of principal loss; therefore, our cash and cash equivalents are held in demand deposit accounts that generate very low returns.

Liquidity and Capital Resources

As of December 31, 2021, we had \$710.6 million in cash and cash equivalents. We consider all highly liquid instruments purchased with an original maturity from the date of purchase of three months or less to be cash equivalents. To date, we have principally financed our operations through cash generated by operating activities and through private and public equity and debt financings.

On January 20, 2021, we issued \$500.0 million aggregate principal amount of 0% convertible senior notes due January 15, 2026 in a private placement to qualified institutional buyers and received proceeds of \$484.3 million, net of \$15.7 million of transaction fees and other debt issuance costs. We used some of the proceeds to repay the \$110.0 million outstanding principal balance under our 2017 Facility and also used some of the proceeds to pay accrued interest, fees and expenses related to the 2017 Facility. We terminated the 2017 Facility effective January 20, 2021. We are using the remaining net proceeds from the issuance of the 2026 Notes for working capital and other general corporate purposes, which may include acquisitions or strategic investments in complementary businesses or technologies.

In February 2021, we paid \$5.0 million in cash to purchase 1,000,000 shares of Series B-2 Preferred Stock from one of our technology partners as part of a financing round that included other investors.

On December 16, 2021, EnergyHub, Inc., acquired certain assets of an unrelated third party. Substantially all of the acquired assets consisted of developed technology. In consideration for the purchase of the developed technology, we paid \$4.2 million in cash in December 2021, with the remaining \$0.9 million expected to be paid 18 months following the acquisition date, subject to offset for any indemnification obligations. Additionally, we incurred \$0.2 million in direct transaction costs related to legal fees during 2021 that were capitalized as a component of the consideration transferred. The combined \$5.3 million consideration related to developed technology was recorded as an intangible asset at the time of the asset acquisition and will be amortized on a straight-line basis over an estimated useful life of seven years.

We believe our existing cash and cash equivalents and our future cash flows from operating activities will be sufficient to meet our anticipated operating cash needs for at least the next 12 months. Over the next 12 months, we expect our capital expenditure requirements to be between \$10.0 million and \$12.0 million, primarily related to purchases of computer software and equipment as well as the continued build out of our leased and owned office space. The estimated capital expenditure requirements exclude land and real estate purchases, if we decide to make such purchases. Maturities of lease liabilities for our various office leases are as follows: \$11.7 million in 2022, \$11.3 million in 2023, \$9.7 million in 2024, \$8.3 million in 2025, \$4.7 million in 2026 and \$0.7 million in 2027 and thereafter.

Our future working capital, capital expenditure and cash requirements will depend on many factors, including the impact of the COVID-19 pandemic on the economy and our operations, the rate of our revenue growth, the amount and timing of our investments in human resources and capital equipment, future acquisitions and investments, and the timing and extent of our introduction of new solutions and platform and solution enhancements. As the impact of the COVID-19 pandemic on the economy and our operations evolves, we will continue to assess our liquidity needs. To the extent our cash and cash equivalents and cash flows from operating activities are insufficient to fund our future activities, we may need to borrow additional funds or raise funds from public or private equity or debt financings. If we raise additional funds through the incurrence of indebtedness, such indebtedness would likely have rights that are senior to holders of our equity securities and could contain covenants that restrict our operations. Any additional equity financing would be dilutive to our current stockholders.

The following discussion summarizes our current and long-term material cash requirements as of December 31, 2021, which we expect to fund primarily with operating cash flows.

	Material Cash Requirements (in thousands)				
	1 Year	2 to 3 Years	4 to 5 Years	More Than 5 Years	Total
Convertible Notes:					
Principal payments	\$ —	\$ —	\$ 500,000	\$ —	\$ 500,000
Special interest	—	—	—	—	—
Operating lease commitments	11,804	21,325	13,393	737	47,259
Other long-term liabilities ¹	184	3,595	1,516	—	5,295
Other commitments ²	656	379	1	—	1,036
Total	\$ 12,644	\$ 25,299	\$ 514,910	\$ 737	\$ 553,590

(1) See Note 12 to our consolidated financial statements for details on the components of other long-term liabilities. As of December 31, 2021, we recorded a liability for long-term accrued taxes and interest payable of \$4.2 million. Due to the uncertainty in the timing of future payments, we have excluded the liability related to these uncertain tax positions from the table above. See Note 18 to our consolidated financial statements for additional information regarding income taxes.

(2) Represents amounts due under multi-year, non-cancelable contracts with third-party vendors, as well as other commitments.

The commitment amounts in the table above are associated with contracts that are enforceable and legally binding and that specify all significant terms, including fixed or minimum services to be used, fixed, minimum or variable price provisions, and the approximate timing of the actions under the contracts. The table does not include obligations under agreements that we can cancel without a significant penalty. Future events could cause actual payments to differ from these estimates.

Convertible Senior Notes

On January 20, 2021, we issued \$500.0 million aggregate principal amount of 0% convertible senior notes due January 15, 2026 in a private placement to qualified institutional buyers, or the 2026 Notes. The terms of the 2026 Notes are governed by an Indenture, or the Indenture, by and between Alarm.com Holdings, Inc. and U.S. Bank National Association, as trustee. The 2026 Notes are senior unsecured obligations that do not bear regular interest and the principal amount of the 2026 Notes will not accrete. The 2026 Notes may bear special interest under specified circumstances related to our failure to comply with our reporting obligations under the Indenture. Special interest, if any, will be payable semiannually in arrears on January 15 and July 15 of each year, beginning on July 15, 2021. We received proceeds from the issuance of the 2026 Notes of \$484.3 million, net of \$15.7 million of transaction fees and other debt issuance costs.

We may not redeem the 2026 Notes prior to January 20, 2024. We may redeem for cash, all or any portion of the 2026 Notes, at our option, on or after January 20, 2024, at a redemption price equal to 100% of the principal amount of the 2026 Notes to be redeemed, plus accrued and unpaid special interest, if any, to, but excluding, the redemption date, if the last reported sale price of our common stock has been at least 130% of the conversion price for the 2026 Notes then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption. No sinking fund is provided for the 2026 Notes.

The 2026 Notes will be convertible at the option of the holders at any time prior to the close of business on the business day immediately preceding August 15, 2025, only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on June 30, 2021 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the

conversion price for the 2026 Notes on each applicable trading day; (2) during the five business day period immediately after any ten consecutive trading day period in which, for each trading day of that period, the trading price per \$1,000 principal amount of 2026 Notes for such trading day was less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the 2026 Notes on each such trading day; (3) if we call any or all of the 2026 Notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date, but only with respect to the 2026 Notes called (or deemed called) for redemption; or (4) upon the occurrence of specified corporate events as set forth in the Indenture.

On or after August 15, 2025, until the close of business on the second scheduled trading day immediately preceding the maturity date of the 2026 Notes, holders of the 2026 Notes may convert all or any portion of their 2026 Notes at any time, regardless of the foregoing conditions. Upon conversion, we may satisfy our conversion obligation by paying or delivering, as the case may be, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election. It is our current intent to settle the principal amount of the 2026 Notes with cash. The initial conversion rate for the 2026 Notes is 6.7939 shares of our common stock per \$1,000 principal amount of 2026 Notes, which is equivalent to an initial conversion price of \$147.19 per share of our common stock, subject to adjustment under certain circumstances in accordance with the terms of the Indenture. In addition, following certain corporate events that occur prior to the maturity date of the 2026 Notes or if we deliver a notice of redemption in respect of the 2026 Notes, we will, under certain circumstances, increase the conversion rate of the 2026 Notes for a holder who elects to convert its 2026 Notes (or any portion thereof) in connection with such a corporate event or convert its 2026 Notes called (or deemed called) for redemption during the related redemption period (as defined in the Indenture), as the case may be.

If we undergo a fundamental change (as defined in the Indenture), subject to certain exceptions and except as described in the Indenture, holders may require us to repurchase for cash all or any portion of their 2026 Notes at a fundamental change repurchase price equal to 100% of the principal amount of the 2026 Notes to be repurchased, plus accrued and unpaid special interest, if any, to, but excluding, the fundamental change repurchase date.

The Indenture includes customary covenants and sets forth certain events of default after which the 2026 Notes may be declared immediately due and payable and sets forth certain types of bankruptcy or insolvency events of default involving us after which the 2026 Notes become automatically due and payable.

We used some of the proceeds to repay the \$110.0 million outstanding principal balance under our credit facility and also used some of the proceeds to pay accrued interest, fees and expenses related to our credit facility (see the section titled "2017 Facility" below). We are using the remaining net proceeds from the issuance of the 2026 Notes for working capital and other general corporate purposes, which may include acquisitions or strategic investments in complementary businesses or technologies.

2017 Facility

On October 6, 2017, we entered into a \$125.0 million senior secured revolving credit facility, or the 2017 Facility, with SVB as administrative agent, PNC Bank, National Association, as documentation agent, and a syndicate of lenders. Upon entry into the 2017 Facility, we borrowed \$72.0 million, which was used to repay the previously outstanding balance under our previous credit facility. The 2017 Facility was set to mature in October 2022 and included an option to further increase the borrowing capacity to \$175.0 million with the consent of the lenders. Costs incurred in connection with the 2017 Facility were capitalized and were being amortized as interest expense over the term of the 2017 Facility. The 2017 Facility was secured by substantially all of our assets, including our intellectual property. On March 25, 2020, we borrowed \$50.0 million under the 2017 Facility as a precautionary measure in order to provide financial flexibility in light of current uncertainty in the financial markets resulting from the COVID-19 pandemic. On January 20, 2021, we repaid the entire outstanding principal balance of \$110.0 million of the 2017 Facility with proceeds from the 2026 Notes and the 2017 Facility was terminated. We recognized an extinguishment loss of \$0.2 million in other (expense) / income, net in our consolidated statements of operations during the year December 31, 2021 for previously capitalized debt issuance costs related to the 2017 Facility that were unamortized at the time of the termination of the 2017 Facility.

The outstanding principal balance on the 2017 Facility accrued interest at a rate equal to, at our option, either (1) LIBOR, plus an applicable margin based on our consolidated leverage ratio, or (2) the highest of (a) the Wall Street Journal prime rate, (b) the Federal Funds rate plus 0.50%, or (c) LIBOR plus 1.00% plus an applicable margin based on our consolidated leverage ratio. During 2021 until the termination of the 2017 Facility on January 20, 2021, we elected for the outstanding principal balance to accrue interest at LIBOR plus 1.50%, LIBOR plus 1.75%, LIBOR plus 2.00%, and LIBOR plus 2.50% when our consolidated leverage ratio is less than 1.00:1.00, greater than or equal to 1.00:1.00 but less than 2.00:1.00, greater than or equal to 2.00:1.00 but less than 3.00:1.00 and greater than or equal to 3.00:1.00, respectively. The 2017 Facility also carried an unused line commitment fee of 0.20%. For the years ended December 31, 2020 and 2019, the effective interest rate on the 2017 Facility was 2.65% and 4.45%, respectively.

The carrying value of the 2017 Facility was zero and \$110.0 million as of December 31, 2021 and 2020, respectively. The 2017 Facility included a variable interest rate that approximated market rates and, as such, we classified the liability as Level 2 within the fair value hierarchy and determined that the carrying amount of the 2017 Facility approximated its fair value as of December 31, 2020.

Sources of Liquidity

The 2017 Facility was a revolving credit facility with SVB as administrative agent, and a syndicate of lenders to finance working capital and certain permitted acquisitions and investments. The 2017 Facility was available to us to refinance existing debt and for general corporate and working capital purposes including acquisitions, and prior to its termination on January 20, 2021, had a borrowing capacity of \$125.0 million. We had the option to increase the borrowing capacity of the 2017 Facility to \$175.0 million with the consent of the lenders. On January 20, 2021, we repaid the entire outstanding balance of \$110.0 million of the 2017 Facility with proceeds from the 2026 Notes and the 2017 Facility was terminated. The 2017 Facility is discussed in more detail above under “2017 Facility.”

On January 20, 2021, we issued \$500.0 million aggregate principal amount of 0% convertible senior notes due January 15, 2026 in a private placement to qualified institutional buyers and received proceeds of \$484.3 million, net of \$15.7 million of transaction fees and other debt issuance costs. The 2026 Notes are discussed in more detail above under “Convertible Senior Notes.”

Dividends

We did not declare or pay dividends during the years ended December 31, 2021, 2020 or 2019. We cannot provide any assurance that we will declare or pay cash dividends on our common stock in the future. We currently anticipate that we will retain all of our future earnings, if any, for use in the operation and expansion of our business and we do not anticipate paying cash dividends in the foreseeable future. Additionally, our ability to pay dividends on our common stock was limited during a portion of 2021 by restrictions under the terms of the agreements governing the 2017 Facility. Payment of future cash dividends, if any, will be at the discretion of the board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs, the requirements of current or then-existing debt instruments and other factors the board of directors deems relevant.

Stock Repurchase Programs

On November 29, 2018, our board of directors authorized a stock repurchase program, under which we were authorized to purchase up to an aggregate of \$75.0 million of our outstanding common stock during the two-year period that ended on November 29, 2020. On December 3, 2020, our board of directors authorized another stock repurchase program, under which we are authorized to purchase up to an aggregate of \$100.0 million of our outstanding common stock during the three-year period ending December 3, 2023. During the year ended December 31, 2020, we repurchased 147,153 shares of our common stock under the program that expired on November 29, 2020 in open market purchases for a total consideration of \$5.1 million. No shares were purchased under these programs during the years ended December 31, 2021 and 2019.

Shares Withheld

As permitted under the terms of the 2015 Plan, in 2021 the Compensation Committee authorized the withholding of shares of common stock in connection with the vesting of restricted stock unit awards issued to employees to satisfy applicable tax withholding requirements. These withheld shares are not issued or considered common stock repurchases under our stock repurchase program. We paid \$4.5 million of tax withholdings related to vesting of restricted stock units during the year ended December 31, 2021. Prior to using the withholding method to satisfy applicable tax withholding requirements for employees, we utilized the sell-to-cover method in which shares of our restricted stock unit awards were sold into the market on behalf of the employee upon vesting to cover tax withholding liabilities. We may utilize either the withholding method or sell-to-cover method in the future.

Historical Cash Flows

The following table sets forth our cash flows for the periods indicated (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Cash flows from operating activities	\$ 103,157	\$ 102,080	\$ 47,112
Cash flows used in investing activities	(20,365)	(20,274)	(73,414)
Cash flows from / (used in) financing activities	374,370	52,024	(130)

Operating Activities

Cash flows from operating activities have typically been generated from our net income and by changes in our operating assets and liabilities, particularly from accounts receivable and inventory, adjusted for non-cash expense items such as amortization and depreciation, deferred income taxes and stock-based compensation.

For 2021, cash flows from operating activities were \$103.2 million, compared to \$102.1 million for 2020. This \$1.1 million increase in cash flows from operating activities was due to a \$43.8 million increase in non-cash and other reconciling items, partially offset by a \$25.5 million decrease in net income and a \$17.2 million decrease in cash from operating assets and liabilities.

The \$43.8 million increase in non-cash and other reconciling items was primarily due to a \$24.7 million gain on the sale of an investment in one of our platform partners in 2020 that did not occur in 2021, which was adjusted from net income within operating activities and presented as cash flows from investing activities. Additionally, the increase in non-cash and other reconciling items was primarily due to \$15.7 million increase in amortization of the debt discount and debt issuance costs related to the 2026 Notes in 2021 as well as a \$9.5 million increase in stock-based compensation resulting from additional grants of stock options and restricted stock units in 2021. These increases in non-cash and other reconciling items were partially offset by a \$6.9 million change in deferred income taxes, primarily due to increased tax windfall benefits from employee stock-based payment transactions in 2021 as compared to 2020. The \$17.2 million decrease in cash from operating assets and liabilities was primarily due to a \$20.8 million change in inventory resulting from additional purchased inventory in 2021 as compared to 2020, which is due in part to the impacts of the COVID-19 pandemic and the related uncertainty surrounding the potential disruption to our supply chain. To a lesser extent, the decrease in cash from operating assets and liabilities was due to increases in prepayments for long lead-time parts related to inventory and other assets, partially offset by differences in timing of collection of receipts and payments of disbursements in 2021 as compared to 2020.

For 2020, cash flows from operating activities were \$102.1 million, compared to \$47.1 million for 2019. This \$55.0 million increase in cash flows from operating activities was due to a \$34.3 million increase in cash from operating assets and liabilities as well as a \$23.3 million increase in net income, partially offset by a \$2.6 million decrease in non-cash items. The \$34.3 million increase in cash from operating assets and liabilities was primarily due to differences in timing of payments of disbursements and collection of receipts totaling \$36.9 million, due in part to the \$28.0 million payment made in 2019 for the agreement reached to settle the legal matter alleging violations of the Telephone Consumer Protection Act, or TPCA, that did not occur in 2020. This increase in cash from operating assets and liabilities was partially offset by a \$3.7 million change in inventory resulting from additional purchased inventory in 2020 that did not occur in 2019, which is due in part to the impacts of the COVID-19 pandemic and the uncertainty surrounding the potential disruption to our supply chain. The \$2.6 million decrease in non-cash and other reconciling items was primarily due to a \$24.7 million gain on the sale of an investment in one of our platform partners in 2020 that did not occur in 2019, which was adjusted from net income within operating activities and presented as cash flows from investing activities. This decrease in non-cash and other reconciling items was partially offset by an \$8.6 million increase in stock-based compensation resulting from additional grants of stock options and restricted stock units in 2020 and a gain of \$6.9 million related to a promissory note with one of our hardware suppliers recorded in 2019 that did not occur in 2020. Additionally, the decrease in non-cash and other reconciling items was also partially offset by a \$5.4 million increase in amortization and depreciation primarily from intangible assets that were acquired in connection with the purchase of 85% of the issued and outstanding capital stock of OpenEye on October 21, 2019.

Investing Activities

Our investing activities typically include acquisitions, capital expenditures, investments in unconsolidated entities, notes receivable issued to companies with offerings complementary to ours and proceeds from the repayment of those notes receivable. Our capital expenditures have primarily been for general business use, including leasehold improvements as we have expanded our office space to accommodate our growth in headcount, computer equipment used internally and expansion of our network operations centers.

For 2021, our cash flows used in investing activities was \$20.4 million as compared to \$20.3 million in 2020. The \$0.1 million increase in cash used in investing activities was primarily due to our payment of \$26.3 million, net of cash acquired, for 100% of the issued and outstanding ownership interest units of SDS in 2020 as well as \$3.3 million used to acquire in-process research and development in 2020 that did not occur 2021. The increase in cash used in investing activities in 2021 as compared to 2020 was partially offset by \$25.7 million in proceeds received from the sale of an investment in one of our platform partners in 2020, which did not occur in 2021 as well as \$5.0 million used to purchase 1,000,000 shares of Series B-2 Preferred Stock from one of our technology partners in 2021, which did not occur in 2020.

For 2020, our cash flows used in investing activities was \$20.3 million as compared to \$73.4 million in 2019. The \$53.1 million decrease in cash used in investing activities was primarily due to our payment of \$58.8 million, net of cash acquired, for 85% of the issued and outstanding capital stock of OpenEye in 2019, partially offset by our payment of \$26.3 million, net of cash

acquired, for 100% of the issued and outstanding ownership interest units of SDS in 2020. Additionally, the decrease in cash used in investing activities was due to \$25.7 million in proceeds received from the sale of an investment in one of our platform partners in 2020, which did not occur in 2019, a payment of \$22.4 million in 2019 to acquire a promissory note as well as \$3.7 million of funding provided to one of our hardware suppliers that did not occur in 2020. The decrease in cash used in investing activities in 2020 as compared to 2019 was partially offset by \$30.7 million received from one of our hardware suppliers for the amounts due under various promissory notes in 2019 that did not occur in 2020.

Financing Activities

Cash generated by financing activities includes borrowings under the 2017 Facility, proceeds from the 2026 Notes and proceeds from the issuance of common stock from employee stock option exercises and from our employee stock purchase plan. Cash used in financing activities typically includes repurchases of common stock and repayments of debt.

For 2021, cash flows from financing activities was \$374.4 million compared to \$52.0 million in 2020. The \$322.4 million increase in cash flows from financing activities was primarily due to \$484.3 million in proceeds from the issuance of the 2026 Notes, net of issuance costs paid. This increase in cash flows from financing activities was partially offset by the repayment of \$110.0 million to terminate the 2017 Facility in 2021 that did not occur in 2020 as well as the borrowing of \$50.0 million under the 2017 Facility in 2020 that did not occur in 2021.

For 2020, cash flows from financing activities was \$52.0 million compared to cash flows used in financing activities of \$0.1 million in 2019. The \$52.1 million increase in cash flows used in financing activities was primarily due to the borrowing of \$50.0 million under our 2017 Facility in 2020 as well as a \$7.8 million increase in cash flows from the issuance of common stock from equity based plans. The increase in cash flows from financing activities in 2020 as compared to 2019 was partially offset by our use of \$5.1 million to purchase shares of treasury stock in 2020 that did not occur in 2019.

Non-GAAP Measures

We define Adjusted EBITDA as our net income before interest expense, interest income, other (expense) / income, net, (benefit from) / provision for income taxes, amortization and depreciation expense, stock-based compensation expense, secondary offering expense, acquisition-related expense and legal costs and settlement fees incurred in connection with non-ordinary course litigation and other disputes, particularly costs involved in ongoing intellectual property litigation. We do not consider these items to be indicative of our core operating performance. The non-cash items include amortization and depreciation expense, amortization of debt discount and debt issuance costs for the 2026 Notes included in interest expense, stock-based compensation expense related to restricted stock units and other forms of equity compensation, including, but not limited to, the sale of common stock. We do not adjust for ordinary course legal expenses resulting from maintaining and enforcing our intellectual property portfolio and license agreements. Adjusted EBITDA is not a measure calculated in accordance with GAAP. See the table below for a reconciliation of Adjusted EBITDA to net income, the most directly comparable financial measure calculated and presented in accordance with GAAP.

We have included Adjusted EBITDA in this report because it is a key measure that our management uses to understand and evaluate our core operating performance and trends, to generate future operating plans, to make strategic decisions regarding the allocation of capital and to make investments in initiatives that are focused on cultivating new markets for our solutions. We also use Adjusted EBITDA, a non-GAAP financial measure, as a performance measure under our executive bonus plan. Further, we believe the exclusion of certain expenses in calculating Adjusted EBITDA facilitates comparisons of our operating performance on a period-to-period basis and, in the case of exclusion of acquisition-related expense and certain historical legal expenses, excludes items that we do not consider to be indicative of our core operating performance. Accordingly, we believe that Adjusted EBITDA provides useful information to investors and others in understanding and evaluating our operating results in the same manner as our management and board of directors.

Our use of Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our financial results as reported under GAAP. Some of these limitations are: (a) although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and Adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements; (b) Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs; (c) Adjusted EBITDA does not reflect the potentially dilutive impact of equity-based compensation; (d) Adjusted EBITDA does not reflect tax payments that may represent a reduction in cash available to us; and (e) other companies, including companies in our industry, may calculate Adjusted EBITDA or similarly titled measures differently, which reduces its usefulness as a comparative measure.

Because of these and other limitations, you should consider Adjusted EBITDA alongside our other GAAP-based financial performance measures, net income and our other GAAP financial results. The following table presents a reconciliation of Adjusted EBITDA to net income, the most directly comparable GAAP measure, for each of the periods indicated (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Adjusted EBITDA:			
Net income	\$ 51,175	\$ 76,660	\$ 53,330
Adjustments:			
Interest expense, interest income and other (expense) / income, net	15,503	(23,862)	(8,483)
(Benefit from) / provision for income taxes	(5,106)	3,500	5,566
Amortization and depreciation expense	29,715	27,520	22,134
Stock-based compensation expense	38,694	29,176	20,603
Secondary offering expense	—	543	—
Acquisition-related expense	29	2,732	2,403
Litigation expense	12,462	8,988	12,754
Total adjustments	91,297	48,597	54,977
Adjusted EBITDA	\$ 142,472	\$ 125,257	\$ 108,307

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily the result of foreign exchange rates. Because our 2017 Facility was terminated in January 2021, we believe our exposure to interest rate risk and inflation risks are immaterial to our business for the year ended December 31, 2021 as compared to the year ended December 31, 2020.

The uncertainty that exists with respect to the economic impact of the COVID-19 pandemic continues to create significant volatility in the financial markets subsequent to the year ended December 31, 2021.

Market Risk

On January 20, 2021, we issued the 2026 Notes. We carry these instruments at face value less unamortized discount and unamortized issuance costs on our consolidated balance sheets. However, the fair value of the 2026 Notes fluctuates when the market price of our common stock fluctuates.

Foreign Currency Exchange Risk

Because substantially all of our revenue and operating expenses are denominated in U.S. dollars, we do not believe that our exposure to foreign currency exchange risk is material to our business, financial condition or results of operations. If a significant portion of our revenue and operating expenses becomes denominated in currencies other than U.S. dollars, we may not be able to effectively manage this risk, and our business, financial condition and results of operations could be adversely affected by translation and by transactional foreign currency conversions.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

**ALARM.COM HOLDINGS, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Alarm.com Holdings, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Alarm.com Holdings, Inc. and its subsidiaries (the "Company") as of December 31, 2021 and 2020, and the related consolidated statements of operations, of equity and of cash flows for each of the three years in the period ended December 31, 2021, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the "consolidated financial statements"). We also have audited 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 (COSO).

In our opinion, the consolidated financial statements referred to above 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. Also 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 the COSO.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Critical Audit Matters

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

Revenue recognition

As described in Note 2 to the consolidated financial statements, the Company's revenue is generated from the sale of cloud-based SaaS services on its integrated Alarm.com platform, the sales of licenses and services on its non-hosted software platform, and the sale of hardware products. Cloud-based SaaS services are billed monthly in advance and revenue is recognized on a monthly basis as the performance obligation is satisfied. Licenses on non-hosted services are billed monthly and revenue is recognized on a monthly basis as the services are performed. Hardware revenue is recognized when the customer obtains control. The Company's total revenue was \$749.0 million for the year ended December 31, 2021.

The principal considerations for our determination that performing procedures relating to revenue recognition is a critical audit matter are the significant audit effort in performing procedures and evaluating audit evidence related to the accuracy and occurrence of revenue transactions.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, including controls over the accuracy and occurrence of revenue transactions. These procedures also included, among others, evaluating, on a test basis, the accuracy and occurrence of transactions recognized as revenue by obtaining and inspecting, where applicable, invoices, customer purchase orders, dealer and license agreements, shipping documents and cash receipts from customers.

Convertible Senior Notes Transaction

As described in Notes 2 and 13 to the consolidated financial statements, the Company issued \$500.0 million aggregate principal amount of 0% convertible senior notes in January 2021. The nature of the convertible senior notes (the "Notes") required management to separate the Notes into liability and equity components. The carrying amount of the liability component is calculated by measuring the fair value of a similar debt instrument that does not have an associated convertible feature. Management determined the carrying amount of the equity component representing the conversion option by deducting the fair value of the liability component from the par value of the Notes as a whole.

The principal considerations for our determination that performing procedures relating to the convertible senior notes transaction is a critical audit matter are (i) the significant judgment by management in determining the fair value of the liability component of the Notes, (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumption related to the selection of the interest rate of a similar debt instrument that does not have an associated convertible feature, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls over management's accounting for the Notes transaction and determining the fair value of the liability component of the Notes, including controls over management's valuation method, significant assumptions, and data. These procedures also included, among others, reading the agreements and evaluating the accounting for the Notes transaction, evaluating the methodology used by management to determine the liability by measuring the fair value of a similar note that does not have an associated conversion feature, and evaluating management's selection of the interest rate of a comparable non-convertible note. Professionals with specialized skill and knowledge were used to assist in evaluating whether the interest rate of a comparable non-convertible note used by management was reasonable considering consistency with external market data.

/s/ PricewaterhouseCoopers LLP
Washington, DC
February 24, 2022

We have served as the Company's auditor since 2009.

ALARM.COM HOLDINGS, INC.
Consolidated Statements of Operations
(in thousands, except share and per share data)

	Year Ended December 31,		
	2021	2020	2019
Revenue:			
SaaS and license revenue	\$ 460,372	\$ 393,257	\$ 337,375
Hardware and other revenue	288,597	224,746	164,988
Total revenue	748,969	618,003	502,363
Cost of revenue⁽¹⁾:			
Cost of SaaS and license revenue	66,758	53,539	50,066
Cost of hardware and other revenue	239,141	173,889	133,533
Total cost of revenue	305,899	227,428	183,599
Operating expenses:			
Sales and marketing	86,664	75,967	61,815
General and administrative	87,406	78,643	69,959
Research and development	177,713	152,147	114,443
Amortization and depreciation	29,715	27,520	22,134
Total operating expenses	381,498	334,277	268,351
Operating income	61,572	56,298	50,413
Interest expense	(15,956)	(2,596)	(2,974)
Interest income	587	870	4,922
Other (expense) / income, net	(134)	25,588	6,535
Income before income taxes	46,069	80,160	58,896
(Benefit from) / provision for income taxes	(5,106)	3,500	5,566
Net income	51,175	76,660	53,330
Net loss attributable to redeemable noncontrolling interest	1,084	1,193	201
Net income attributable to common stockholders	\$ 52,259	\$ 77,853	\$ 53,531
Per share information attributable to common stockholders:			
Net income per share:			
Basic	\$ 1.05	\$ 1.59	\$ 1.11
Diluted	\$ 1.01	\$ 1.53	\$ 1.06
Weighted average common shares outstanding:			
Basic	49,869,857	48,950,328	48,427,446
Diluted	51,919,902	50,963,190	50,273,889

(1) Exclusive of amortization and depreciation shown in operating expenses below.

See accompanying notes to the consolidated financial statements.

ALARM.COM HOLDINGS, INC.
Consolidated Balance Sheets
(in thousands, except share and per share data)

	December 31,	
	2021	2020
Assets		
Current assets:		
Cash and cash equivalents	\$ 710,621	\$ 253,459
Accounts receivable, net of allowance for credit losses of \$2,168 and \$4,696, respectively, and net of allowance for product returns of \$1,181 and \$1,480, respectively	105,548	83,326
Inventory	75,276	44,281
Other current assets, net of allowance for credit losses of \$2 and \$17, respectively	26,175	16,348
Total current assets	917,620	397,414
Property and equipment, net	41,713	44,796
Intangible assets, net	91,406	103,259
Goodwill	112,901	112,838
Deferred tax assets	13,547	21,692
Operating lease right-of-use assets	30,479	33,455
Other assets, net of allowance for credit losses of \$78 and \$72, respectively	24,349	18,233
Total assets	\$ 1,232,015	\$ 731,687
Liabilities, redeemable noncontrolling interest and stockholders' equity		
Current liabilities:		
Accounts payable, accrued expenses and other current liabilities	\$ 89,816	\$ 53,927
Accrued compensation	23,495	22,307
Deferred revenue	5,697	4,037
Operating lease liabilities	10,331	9,973
Total current liabilities	129,339	90,244
Deferred revenue	9,140	8,492
Convertible senior notes, net	425,345	—
Long-term debt	—	110,000
Operating lease liabilities	32,591	37,697
Other liabilities	9,545	6,811
Total liabilities	605,960	253,244
Commitments and contingencies (Note 13)		
Redeemable noncontrolling interest	12,888	10,691
Stockholders' equity		
Preferred stock, \$0.001 par value, 10,000,000 shares authorized; no shares issued and outstanding as of December 31, 2021 and 2020	—	—
Common stock, \$0.01 par value, 300,000,000 shares authorized; 50,406,606 and 49,630,773 shares issued; and 50,259,453 and 49,483,620 shares outstanding as of December 31, 2021 and 2020, respectively	504	496
Additional paid-in capital	498,979	405,831
Treasury stock, at cost; 147,153 shares as of each of December 31, 2021 and 2020	(5,149)	(5,149)
Retained earnings	118,833	66,574
Total stockholders' equity	613,167	467,752
Total liabilities, redeemable noncontrolling interest and stockholders' equity	\$ 1,232,015	\$ 731,687

See accompanying notes to the consolidated financial statements.

ALARM.COM HOLDINGS, INC.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2021	2020	2019
Cash flows from operating activities:			
Net income	\$ 51,175	\$ 76,660	\$ 53,330
Adjustments to reconcile net income to net cash from operating activities:			
(Recovery of) / provision for credit losses on accounts receivable	(775)	2,162	1,170
Reserve for product returns	2,494	1,795	(123)
Recovery of credit losses on notes receivable	(9)	(359)	(3,272)
Provision for excess and obsolete inventory	448	1,451	485
Amortization on patents and tooling	1,240	882	700
Amortization and depreciation	29,715	27,520	22,134
Amortization of debt discount and debt issuance costs	15,823	108	108
Amortization of operating leases	9,692	8,888	7,600
Deferred income taxes	(10,115)	(3,256)	2,599
Change in fair value of contingent liability	—	(2,595)	(198)
Stock-based compensation	38,694	29,176	20,603
Gain on notes receivable	—	—	(6,931)
Acquired in-process research and development	—	3,297	850
Gain on sale of investment	—	(24,737)	—
(Gain on) / impairment of investment or intangible assets	86	(676)	605
Loss on early extinguishment of debt	185	—	—
Changes in operating assets and liabilities (net of business acquisitions):			
Accounts receivable	(23,941)	(10,098)	(22,273)
Inventory	(31,443)	(10,647)	(6,976)
Other current and non-current assets	(11,912)	(2,683)	(2,887)
Accounts payable, accrued expenses and other current liabilities	39,418	13,781	(10,980)
Deferred revenue	2,308	2,031	(1,567)
Operating lease liabilities	(11,809)	(10,177)	(8,268)
Other liabilities	1,883	(443)	403
Cash flows from operating activities	<u>103,157</u>	<u>102,080</u>	<u>47,112</u>
Cash flows used in investing activities:			
Business acquisitions, net of cash acquired	—	(26,299)	(58,833)
Additions to property and equipment	(11,062)	(16,141)	(19,324)
Purchases of in-process research and development	—	(3,297)	(850)
Issuances or purchases of notes receivable	—	(1,200)	(26,103)
Receipt of payments on notes receivable	59	2,026	31,696
Purchase of investment in unconsolidated entity	(5,000)	—	—
Proceeds from sale of investment	—	25,687	—
Purchases of patents, patent licenses and developed technology	(4,362)	(1,050)	—
Cash flows used in investing activities	<u>(20,365)</u>	<u>(20,274)</u>	<u>(73,414)</u>
Cash flows from / (used in) financing activities:			
Proceeds from credit facility	—	50,000	—
Repayments of credit facility	(110,000)	(3,000)	(4,000)
Proceeds from issuance of convertible senior notes	500,000	—	—
Payments of debt issuance costs	(15,698)	—	—
Payments of deferred consideration for business acquisitions	(1,160)	(1,538)	—
Purchases of treasury stock	—	(5,149)	—
Payments of tax withholdings related to vesting of restricted stock units	(4,476)	—	—
Issuances of common stock from equity-based plans	5,704	11,711	3,870
Cash flows from / (used in) financing activities	<u>374,370</u>	<u>52,024</u>	<u>(130)</u>
Net increase / (decrease) in cash and cash equivalents	<u>457,162</u>	<u>133,830</u>	<u>(26,432)</u>
Cash and cash equivalents at beginning of the period	<u>253,459</u>	<u>119,629</u>	<u>146,061</u>
Cash and cash equivalents at end of the period	<u>\$ 710,621</u>	<u>\$ 253,459</u>	<u>\$ 119,629</u>

ALARM.COM HOLDINGS, INC.
Consolidated Statements of Cash Flows — (Continued)
(in thousands)

	Year Ended December 31,		
	2021	2020	2019
Supplemental disclosures:			
Cash paid for interest	\$ 114	\$ 2,427	\$ 2,730
Cash paid for income taxes, net of refunds	4,146	7,369	2,254
Noncash investing and financing activities:			
Cash not yet paid for capital expenditures	1,082	2,020	837
Cash not yet paid for business and asset acquisitions - holdback	850	1,017	2,970
Contingent liability from business acquisition	—	—	2,595

See accompanying notes to the consolidated financial statements.

ALARM.COM HOLDINGS, INC.
Consolidated Statements of Equity
(in thousands)

	Redeemable Noncontrolling Interest	Preferred Stock		Common Stock		Additional Paid-In Capital	Treasury Stock		Retained Earnings / (Accumulated Deficit)	Total Stockholders' Equity
		Shares	Amount	Shares	Amount		Shares	Amount		
Balance as of December 31, 2018	\$ —	—	\$ —	48,102	\$ 481	\$ 341,139	—	\$ —	\$ (64,031)	\$ 277,589
Adoption of accounting standard on leases	—	—	—	—	—	—	—	—	37	37
Common stock issued in connection with equity-based plans	—	—	—	598	6	3,864	—	—	—	3,870
Vesting of common stock subject to repurchase	—	—	—	1	—	8	—	—	—	8
Stock-based compensation expense	—	—	—	—	—	20,616	—	—	—	20,616
Noncontrolling interest assumed through acquisition	11,411	—	—	—	—	—	—	—	—	—
Net income / (loss) attributable to common stockholders	(201)	—	—	—	—	—	—	—	53,531	53,531
Balance as of December 31, 2019	\$ 11,210	—	\$ —	48,701	\$ 487	\$ 365,627	—	\$ —	\$ (10,463)	\$ 355,651
Adoption of accounting standard on credit losses	—	—	—	—	—	—	—	—	(816)	(816)
Common stock issued in connection with equity-based plans	—	—	—	930	9	11,702	—	—	—	11,711
Purchases of treasury stock	—	—	—	—	—	—	147	(5,149)	—	(5,149)
Stock-based compensation expense	—	—	—	—	—	29,176	—	—	—	29,176
Accretion adjustments of redeemable noncontrolling interest to redemption value	674	—	—	—	—	(674)	—	—	—	(674)
Net income / (loss) attributable to common stockholders	(1,193)	—	—	—	—	—	—	—	77,853	77,853
Balance as of December 31, 2020	\$ 10,691	—	\$ —	49,631	\$ 496	\$ 405,831	147	\$ (5,149)	\$ 66,574	\$ 467,752
Common stock issued in connection with equity-based plans	—	—	—	776	8	5,696	—	—	—	5,704
Tax withholdings related to vesting of restricted stock units	—	—	—	—	—	(4,476)	—	—	—	(4,476)
Stock-based compensation expense	—	—	—	—	—	38,694	—	—	—	38,694
Equity component of convertible senior notes, net	—	—	—	—	—	56,515	—	—	—	56,515
Accretion adjustments of redeemable noncontrolling interest to redemption value	3,281	—	—	—	—	(3,281)	—	—	—	(3,281)
Net income / (loss) attributable to common stockholders	(1,084)	—	—	—	—	—	—	—	52,259	52,259
Balance as of December 31, 2021	\$ 12,888	—	\$ —	50,407	\$ 504	\$ 498,979	147	\$ (5,149)	\$ 118,833	\$ 613,167

See accompanying notes to the consolidated financial statements.

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Note 1. Organization

Alarm.com Holdings, Inc. (referred to herein as Alarm.com, the Company, or we) is the leading platform for the intelligently connected property. We offer a comprehensive suite of cloud-based solutions for the smart residential and commercial property, including interactive security, video monitoring, intelligent automation and energy management. Millions of property owners depend on our technology to intelligently secure, automate and manage their residential and commercial properties. Our solutions are delivered through an established network of over 10,900 trusted service provider partners, who are experts at selling, installing and supporting our solutions. We derive revenue from the sale of our cloud-based Software-as-a-Service, or SaaS, services, license fees, software, hardware, activation fees and other revenue. Our fiscal year ends on December 31.

Note 2. Summary of Significant Accounting Policies

Principles of Consolidation

Our consolidated financial statements include our accounts and those of our majority-owned and controlled subsidiaries after elimination of intercompany accounts and transactions. Equity investments over which we are able to exercise significant influence but do not control the investee are accounted for using the equity method.

We determine whether we have a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity or a variable interest entity, or VIE. Voting interest entities are entities that have sufficient equity and provide equity investor voting rights that give them power to make significant decisions relating to the entity's operations. The usual condition for a controlling financial interest in a voting interest entity is ownership of a majority voting interest. In VIEs, a controlling financial interest is attained through means other than voting rights and the entities lack one or more of the characteristics of a voting entity.

We have unconsolidated equity investments in third-party businesses. Equity investments with readily determinable fair values are recorded at fair value. Equity investments without readily determinable fair values are recorded using the measurement alternative. Under the measurement alternative, we measure investments without readily determinable fair values at cost, less impairment, adjusted for observable price changes from orderly transactions for identical or similar investments. We make a separate election to use the measurement alternative for each eligible investment, and reassess whether an investment qualifies for the alternative at each reporting period. Adjustments resulting from impairment, fair value or observable price changes are recorded in other (expense) / income, net in our consolidated statements of operations.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America, or GAAP, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. As of the date of issuance of these financial statements, we are not aware of any specific event or circumstance that would require us to update our estimates, assumptions and judgments or revise the carrying value of our assets or liabilities. However, our estimates, judgments and assumptions are continually evaluated based on available information and experience and may change as new events occur and additional information is obtained. Because of the use of estimates inherent in the financial reporting process and in light of the continuing uncertainty arising from the COVID-19 pandemic, actual results could differ from those estimates and any such differences may be material. Estimates are used when accounting for revenue recognition, allowances for credit losses, allowance for hardware returns, estimates of obsolete inventory, long-term incentive compensation, the lease term and incremental borrowing rates for leases, stock-based compensation, income taxes, legal reserves, fair value of the debt component of convertible notes, contingent consideration and goodwill and intangible assets.

Reclassifications

Certain previously reported amounts in the liabilities footnote for the year ended December 31, 2020 have been reclassified to conform to our current presentation, including the addition of the subsidiary long-term incentive plan as a separate line item within the presentation of other liabilities.

Certain previously reported amounts in the income taxes footnote for the years ended December 31, 2020 and 2019 have been reclassified to conform to our current presentation, including the addition of the foreign withholding tax line of the reconciliation between the federal statutory rate and the effective income tax rate.

Cash and Cash Equivalents

We consider all highly liquid instruments purchased with an original maturity from the date of purchase of three months or less to be cash equivalents. As of December 31, 2021 and 2020, we have invested \$679.3 million and \$221.4 million in cash

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equivalents in the form of money market funds with one financial institution, respectively. We consider these money market funds to be Level 1 financial instruments (see Note 10).

Accounts Receivable

Accounts receivable are principally derived from sales to customers located in the United States and Canada. Substantially all of our sales in Canada are transacted in U.S. dollars. Revenue in countries outside of North America accounted for 3% of our total revenue for each of the years ended December 31, 2021, 2020 and 2019. Accounts receivable balances related to service providers partners outside of North America were 4% and 7% as of December 31, 2021 and 2020, respectively. Our accounts receivable are stated at estimated realizable value.

Notes Receivable

Notes receivable are presented net of an allowance for uncollectibility, if any. We accrue interest on notes receivable based on the contractual terms of the note. Outstanding notes receivable that are aged 30 days or more from the contractual payment date are considered past due. Notes receivable are evaluated for impairment at least quarterly. Impairment occurs when it is deemed probable that we will not be able to collect all amounts due according to the contractual terms of the loan. Factors considered in determining impairment include payment status, collateral value and the probability of collecting payments when due. See Note 9 for further details on loans provided to one of our distribution partners, suppliers and service provider partners.

Credit Losses

The allowance for credit losses is a valuation account that is deducted from the accounts receivable and notes receivable amortized cost basis to present the net amount expected to be collected. We estimate the allowance balance by applying the loss-rate method using relevant available information from internal and external sources, including historical write-off activity, current conditions and reasonable and supportable forecasts. Historical credit loss experience provides the basis for the estimation of expected credit losses. Adjustments to historical loss information are made for changes in economic conditions, such as changes in unemployment rates. We use projected economic conditions over a period no more than twelve months based on data from external sources. For periods beyond the twelve-month reasonable and supportable forecast period, we revert to historical loss information immediately.

The allowance for credit losses is measured on a pooled basis when similar risk characteristics exist. When assessing whether to measure certain financial assets on a pooled basis, we considered various risk characteristics, including the financial asset type, size and the historical or expected credit loss pattern. These risk characteristics are relevant to accounts receivable and notes receivable. We identified the following two portfolio segments for our accounts receivable: (i) outstanding accounts receivable balances within Alarm.com and certain subsidiaries and (ii) outstanding accounts receivable balances within all other subsidiaries. We identified the following two portfolio segments for our notes receivable: (i) loan receivables and (ii) hardware financing receivables. There were no changes to our portfolio segments since the adoption of Accounting Standards Update, or ASU, 2016-13, "Financial Instruments - Credit Losses (Topic 326)," or Topic 326, and no changes to our policies or practices involving the issuance of notes receivable, customer acquisitions or any other factors that influenced our estimate of expected credit losses. Additionally, there were no significant changes in the amount of accounts receivable or notes receivable write-offs during the year ended December 31, 2021 as compared to historical periods other than a partial accounts receivable write-off of \$0.7 million related to one of our distribution partners' outstanding balance during the year ended December 31, 2021. There were no purchases or sales of financial assets during the years ended December 31, 2021 and 2020.

Expected credit losses are estimated over the contractual term of the financial assets and we adjust the term for expected prepayments when appropriate. For the years ended December 31, 2021 and 2019, we recorded a reduction to credit loss expense of \$1.0 million and \$2.1 million in general and administrative expense in our consolidated statements of operations, respectively, primarily due to improvements in collections and improvements in the economic conditions used in the calculation of credit losses. For the year ended December 31, 2020, we recorded credit loss expense of \$1.7 million in general and administrative expense in our consolidated statements of operations. The contractual term excludes expected extensions, renewals and modifications because extension and renewal options are unconditionally cancelable by us. Write-offs of the amortized cost basis are recorded to the allowance for credit losses. Any subsequent recoveries of previously written off balances are recorded as a reduction to credit loss expense.

We do not accrue interest on notes receivable that are considered impaired or are 90 days or greater past due based on their contractual payment terms. Notes receivable that are 90 days or greater past due are placed on nonaccrual status. Notes receivable may be placed on nonaccrual status earlier if, in management's opinion, a timely collection of the full principal and interest becomes uncertain. After a note receivable has been placed on nonaccrual status, interest will be recognized when cash is received. A note receivable may be returned to accrual status after all of the customer's delinquent balances of principal and interest have been settled, and collection of all remaining contractual amounts due is reasonably assured. We have elected not to measure an allowance for credit losses for accrued interest receivables. We write-off any accrued interest on notes receivable that are considered impaired or are 90 days or greater past due based on their contractual payment terms by reversing interest

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income. The accrued interest receivable as of December 31, 2021 and 2020 was less than \$0.1 million and is reflected in other current assets within our consolidated balance sheets and excluded from the amortized cost basis of the notes receivable. We did not write-off any accrued interest receivable during the years ended December 31, 2021, 2020 and 2019.

Inventory

Our inventory, which is comprised of raw materials and finished goods, includes materials used to produce our wireless communications network enabled radios, video cameras, video recorders, gunshot detection sensors, home automation system parts and peripherals, is stated at the lower of cost or net realizable value, and is charged to cost of sales primarily on a first in, first out, or FIFO, basis when the inventory is shipped from our manufacturer and received by our service provider partners. We periodically evaluate our inventory quantities for obsolescence based on criteria such as customer demand and changing technology and record an obsolescence write-off when necessary.

Leases

On January 1, 2019, we adopted ASU 2016-02, “*Leases (Topic 842)*.” We determine if an arrangement contains a lease at the inception of the arrangement. As part of the lease determination process, we assess several factors, including, but not limited to, whether we have the right to control and direct the use of the asset and whether the other party has a substantive substitution right. If we enter into leases that contain multiple components, we identify separate lease components based on whether or not the right to use the underlying assets is distinct and either highly dependent or highly interrelated with other rights in the contract. We also evaluate whether there are any non-lease components in the arrangement. For certain classes of underlying assets, such as data centers, we have elected not to separate non-lease components from lease components. For all other classes of underlying assets, if separate lease and non-lease components are identified, we allocate the consideration in the contract to the lease and non-lease components using the relative stand-alone selling price method at the lease inception.

Many of our leases include options to renew at our sole discretion. We also have several leases that provide us an option to terminate the lease prior to the end of the lease term. These renewal and termination options are included in the lease term at the commencement date when we are reasonably certain the options will be exercised. When assessing the likelihood of electing these options, we consider the length of the renewal period, market conditions, our expansion plans, the existence of a termination penalty, as well as other factors. Our lease agreements do not contain any material residual value guarantees, restrictive covenants or variable lease payments.

Right-of-use, or ROU, assets represent our right to use an underlying asset for the term of the lease and lease liabilities represent our obligation to make lease payments throughout the term of the lease. ROU assets and lease liabilities are recognized as of the commencement date of the lease based on the present value of contractual lease payments due over the term of the lease. We use our incremental borrowing rate to determine the present value of the lease payments, as our leases do not state the rate implicit in the lease. Our incremental borrowing rate is determined on a collateralized basis at the commencement date of the lease.

ROU assets and lease liabilities resulting from operating leases are recorded on our consolidated balance sheets. We did not have any finance leases or subleases as of December 31, 2021 and 2020.

Lease expense is recognized on a straight-line basis over the term of the lease and is recorded in general and administrative expense. Some of our leases include tenant improvement allowances, which are recorded when we are reasonably certain to utilize the allowance and are amortized on a straight-line basis over the shorter of the lease terms or the asset lives. Leases with an initial lease term of twelve months or less are considered short-term leases. Short-term leases are not recorded on our consolidated balance sheets. Expenses associated with short-term leases are recognized on a straight-line basis over the term of the lease and are recorded in general and administrative expense. Short-term lease costs were immaterial for the years ended December 31, 2021 and 2020.

Convertible Senior Notes

On January 20, 2021, we issued \$500.0 million aggregate principal amount of 0% convertible senior notes due January 15, 2026 in a private placement to qualified institutional buyers, or the 2026 Notes. In accounting for the issuance of our convertible senior notes, we separate the notes into liability and equity components. The carrying amount of the liability component is calculated by measuring the fair value of a similar liability that does not have an associated convertible feature, using a discounted cash flow model with a risk adjusted yield. The carrying amount of the equity component representing the conversion option is determined by deducting the fair value of the liability component from the par value of the notes as a whole. This difference between the aggregate principal amount and the liability component represents a debt discount that is amortized to interest expense using the effective interest method over the term of the notes. The equity component is not remeasured as long as it continues to meet the conditions for equity classification.

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In accounting for the transaction costs related to the issuance of the notes, we allocate the total amount incurred to the liability and equity components using the same proportions as the proceeds from the notes. Transaction costs attributable to the liability component are netted with the liability component and amortized to interest expense using the effective interest method over the term of the notes. Transaction costs attributable to the equity component are netted with the equity component of the notes in additional paid-in capital in the consolidated balance sheets. See Note 13 for the carrying amount and estimated fair value of the 2026 Notes as of December 31, 2021.

Redeemable Noncontrolling Interests

Noncontrolling interests with redemption features that are not solely within our control are considered redeemable noncontrolling interests. Our redeemable noncontrolling interest relates to our 85% equity ownership interest in PC Open Incorporated, a Washington corporation, doing business as OpenEye (see Note 7). The OpenEye stockholder agreement contains a put option that gives the minority OpenEye stockholders the right to sell their OpenEye shares to us based on the fair value of the shares. The OpenEye stockholder agreement also contains a call option that gives us the right to purchase the remaining OpenEye shares from the minority OpenEye stockholders based on the fair value of the shares. The put and call options can each be exercised beginning in the first quarter of 2023. This redeemable noncontrolling interest is considered temporary equity and we report it between liabilities and stockholders' equity in the consolidated balance sheets. The amount of the net income or loss attributable to redeemable noncontrolling interests is recorded in the consolidated statements of operations and the accretion of the redemption value is recorded as an adjustment to additional paid-in capital. The redemption value of the of the noncontrolling interest was \$12.9 million and \$10.7 million as of December 31, 2021 and 2020.

Internal-Use Software

We capitalize the costs directly related to the development of internal-use software for our platforms during the application development stage of the projects. Such costs primarily include payroll and payroll-related costs for engineers and product development employees directly associated with the development project. Our internal-use software is reported at cost less accumulated depreciation. Depreciation begins once the project is ready for its intended use, which is usually when the code goes into production in weekly software builds on our platforms. We depreciate the asset on a straight-line basis over a period of three years, which is the estimated useful life. We update our software for our SaaS multi-tenant platforms on a weekly basis utilizing continuous agile development methods, which primarily consists of bug-fixes and user interface changes. We evaluate whether a project should be capitalized if it adds significant functionality to our platforms. Maintenance activities or minor upgrades are expensed in the period performed.

External Software

Costs incurred in researching and developing a computer software product that will be marketed and sold are charged to expense when incurred until technological feasibility is established. Technological feasibility is established upon completion of a detailed program design or, in its absence, completion of a working model (a beta version). After technological feasibility is established, certain payroll and payroll-related costs are capitalized for engineers and product development employees directly associated with the development project. Cost capitalization ceases when the product is available for general release. Our non-hosted software is typically developed in an agile environment with frequent revisions to product release features and functions. Agile development results in a short duration between completion of the detailed program design and beta release. Accordingly, as of December 31, 2021 and 2020, we did not have any capitalized external software due to the shorter development cycle associated with agile development.

Revenue Recognition

We derive our revenue from three primary sources: the sale of cloud-based SaaS services on our integrated Alarm.com platform, the sale of licenses and services on our non-hosted software platform, or Software platform, and the sale of hardware products. We sell our platform and hardware solutions to service provider partners that resell our solutions and hardware to residential and commercial property owners, who are the service provider partners' customers. Our subscribers consist of all of the properties maintained by those residential and commercial property owners to which we are delivering at least one of our solutions. We also sell our hardware to distributors who resell the hardware to service provider partners. We enter into contracts with our service provider partners that establish pricing for access to our platform solutions and for the sale of hardware. These service provider contracts typically have an initial term of one year, with subsequent renewal terms of one year. Our service provider partners typically enter into contracts with our subscribers, which our service provider partners have indicated range from three to five years in length.

Our hardware includes cellular radio modules that enable access to our cloud-based platforms, as well as video cameras, video recorders, image sensors, gunshot detection sensors and other peripherals. Our service provider partners may purchase our hardware in anticipation of installing the hardware in a residential or commercial property when they create a new subscriber account, or for use in existing subscriber properties. The purchase of hardware occurs in a transaction that is separate and typically in advance of the purchase of our platform services. The performance obligation is primarily satisfied when the hardware

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is received by our service provider partner or distributor. Service provider partners transact with us to purchase our platform solutions and resell our solutions to a new subscriber, or to upgrade or downgrade the solutions of an existing subscriber, at which time the subscriber's access to our platform solutions is enabled and the delivery of the services commences. Our performance obligation related to providing our platform solutions is satisfied on a daily basis as the subscriber uses the platform services. The purchase of platform solutions and the purchase of hardware are separate transactions as revenue is recognized when control of the promised goods or services are transferred to our customers, in an amount that reflects the consideration that we expect to receive in exchange for those goods or services. We generate all of our revenue from contracts with customers.

SaaS and license revenue associated with our contracts is invoiced and revenue is recognized at an amount that corresponds directly with the value of the performance completed to date. Additionally, the consideration received from hardware sales corresponds directly with the stand-alone selling price of the hardware. As a result, we have elected to use the practical expedient related to the amount of transaction price allocated to the unsatisfied performance obligations and therefore, we have not disclosed the total remaining revenue expected to be recognized on all contracts or the expected period over which the remaining revenue would be recognized.

To determine the transaction price, we analyze all of the performance obligations included in the contract. We consider the terms of the contract and our customary business practices, which typically do not include financing components or non-cash consideration. We have variable consideration in the form of retrospective volume discounts, rebate incentives, restocking fees and assurance-type warranties. The significant inputs related to our estimates of variable consideration include the volume and amount of products and services sold historically and expected to be sold in the future, the availability and performance of our services and the historical and expected number of returns. Depending on the type of variable consideration and its predictability, we may apply an "expected value" approach or a "most likely amount" approach. We estimate the variable consideration at the onset of a contract and include the variable consideration within the transaction price if it is probable that a significant reversal of the variable consideration would not occur in the future. When determining whether the amount of variable consideration included in the transaction price should be constrained, we look at the history of hardware purchased and subscribers added by our service provider partners to estimate the likelihood of those service provider partners obtaining the retrospective volume discounts and rebates. At times, our contracts include consideration payable to a customer in the form of fixed discounts or rebates. We record the consideration payable to a customer as a reduction to the transaction price resulting in a reduction to revenue over the service period.

If we enter into contracts that contain multiple promised services, we evaluate which of the promised services represent separate performance obligations based on whether or not the promised services are distinct and whether or not the services are separable from other promises in the contract. If these criteria are met, then we allocate the transaction price to the performance obligations using the relative stand-alone selling price method at contract inception.

In determining the relative estimated selling prices, we consider market conditions, entity-specific factors and information about the customer or class of customer. Any discount within the contract is allocated proportionately to all of the separate performance obligations in the contract unless the terms of discount relate specifically to the entity's efforts to satisfy some but not all of the performance obligations.

For our standard service provider agreements, we have used a portfolio approach for purposes of revenue recognition, as each agreement has similar characteristics and we do not expect the effects of applying this approach would have a material impact on our financial statements as compared to assessing each agreement individually.

SaaS and License Revenue

We generate the majority of our SaaS and license revenue primarily from monthly fees charged to our service provider partners sold on a per subscriber basis for access to our cloud-based intelligently connected property platform and related solutions. Our fees per subscriber vary based upon the service plan and features utilized.

Under the terms of our contractual arrangements with our service provider partners, we bill a monthly fee to our service provider partners in advance of the month of service, with the exception of the initial partial month of service, which is paid in arrears. Due to the limited period of time between receipt of payment and delivery of service, we have not accounted for these advance payments as significant financing components. We typically transfer the promised SaaS services to our customers over time, which is evidenced by the fact that the customers receive and consume the benefits provided by our performance of the services as such services are rendered. As a result, we recognize revenue from SaaS services on a monthly basis as we satisfy our performance obligations. We have demonstrated that we can sell our SaaS offering on a stand-alone basis, as it can be sold separately from hardware and activation services. As there is neither a minimum required initial service term nor a stated renewal term in our contractual arrangements, we recognize revenue over the period of service, which is monthly. Our service provider partners typically incur and pay the same monthly fee per subscriber account for the entire period a subscriber account is active.

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We offer multiple service level packages for our platform solutions including a range of solutions and a range of a la carte add-ons for additional features. The fee paid by our service provider partners each month for the delivery of our solutions is based on the combination of packages and add-ons enabled for each subscriber. We utilize tiered pricing plans where our service provider partners may receive prospective pricing discounts driven by volume.

We also generate SaaS and license revenue from the fees paid to us when we license our intellectual property to third parties for use of our patents. We bill a monthly fee to third parties based on the number of customers that were active during the prior month. We apply the usage-based royalty exception to recognize license revenue because the sole or predominant item to which the royalty relates is the license of intellectual property. Under the usage-based royalty exception, we recognize revenue on a monthly basis over the period of service. In addition, in certain markets, our EnergyHub subsidiary sells its demand response service for an annual service fee, with pricing based on the number of subscribers or amount of aggregate electricity demand made available for a utility's or market's control.

Software License Revenue

Our SaaS and license revenue also includes our software license revenue from monthly fees charged to service providers sold on a per subscriber basis for access to our Software platform. The non-hosted software for interactive security, automation and related solutions is typically deployed and operated by the service provider in its own network operations center. Our agreements for the Software platform solution typically include software and services, such as post-contract customer support, or PCS. Software sales that include multiple elements are typically allocated to the various elements using the relative stand-alone selling price method. We apply the usage-based royalty exception to recognize license revenue associated with software hosted by our customers because the predominant item to which the royalty relates is the license of intellectual property. Under the usage-based royalty exception, we recognize revenue on a monthly basis over the period during which the services are expected to be performed. Under the terms of our contractual arrangements with our service provider partners, we are entitled to payment of a monthly fee that is billed per subscriber for the month of service. Our software license revenue during the years ended December 31, 2021, 2020 and 2019 was \$32.3 million, \$38.0 million and \$43.4 million, respectively.

Hardware and Other Revenue

We generate hardware and other revenue primarily from the sale of video cameras, video recorders and cellular radio modules that provide access to our cloud-based platforms and, to a lesser extent, the sale of other devices, including image sensors, gunshot detection sensors and other peripherals. We primarily transfer hardware to our customers upon delivery to the customer, which corresponds with the time at which the customer obtains control of the hardware. As a result, we recognize hardware and other revenue as we satisfy our performance obligations, which primarily occurs when the hardware is received by our service provider partner or distributor, net of a reserve for estimated returns. There are a few contracts in which we provide shipping and handling services to the customer after control of the hardware transfers to the customer. In these instances, we have elected to account for shipping and handling costs as activities performed to fulfill the promise to transfer hardware to the customer and not as a separate promised service.

Amounts due from the sale of hardware are payable in accordance with the terms of our agreements with our service provider partners or distributors, and are not contingent on resale to end-users, or to service provider partners in the case of sales of hardware to distributors. Payment for our hardware is typically due within 30 days from shipment, with the exception of certain hardware finance arrangements, which are paid over a 36-month period. Our distributors sell directly to our service provider partners under terms between the two parties.

When determining the amount of consideration we expect to be entitled to for the sale of our hardware, we estimate the variable consideration associated with customer returns. We record a reserve against revenue for hardware returns based on historical returns. For each of the years ended December 31, 2021, 2020 and 2019, our reserve against revenue for hardware returns was approximately 1% of hardware and other revenue. We evaluate our hardware reserve on a quarterly basis or if there is an indication of significant changes in return experience. Historically, our returns of hardware have not significantly differed from our estimated reserve. Additionally, we provide warranties related to the intended functionality of the products and services provided and those warranties typically allow for the return of hardware up to one year past the date of sale. We determined that these warranties are not separate performance obligations as they cannot be purchased separately and do not provide a service in addition to an assurance the hardware will function as expected.

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Our hardware and other revenue also includes our revenue from the sale of perpetual licenses that provide our customers in the commercial market the right to use our OpenEye video surveillance software for an indefinite period of time in exchange for a one-time license fee, which is generally paid at contract inception. Our hardware and other revenue also includes our revenue from Shooter Detection Systems related to the sale of licenses that provide our customers the right to use our indoor gunshot detection solution in exchange for license fees, which are generally paid at contract inception. Our perpetual licenses and licenses to our indoor gunshot detection solution provide a right to use intellectual property that is functional in nature and has significant stand-alone functionality. Accordingly, for licenses of functional intellectual property, revenue is recognized at the point-in-time when control has been transferred to the customer, which occurs once the software has been made available to the customer.

Hardware and other revenue may also include activation fees charged to some of our service provider partners for activation of a new subscriber account on our platforms, as well as fees paid by service provider partners for our marketing services. Our service provider partners use services on our platforms, such as support tools and applications, to assist in the installation of our solutions in subscriber properties. This installation marks the beginning of the service period on our platforms and, on occasion, we earn activation revenue for fees charged for this service. The activation fee is non-refundable, separately negotiated and specified in our contractual arrangements with our service provider partners and is charged to the service provider partner for each subscriber activated on our platforms. The decision whether to charge an activation fee is based in part on the expected number of subscribers to be added by our service provider partners and as a result, many of our largest service provider partners do not pay an activation fee. Activation fees are not offered on a stand-alone basis separate from our SaaS offering and are billed and received at the beginning of the arrangement. We record activation fees initially as deferred revenue and we recognize these fees ratably over the expected term of the subscribers' account which we estimate is 10 years based on our annual attrition rate. The portion of these activation fees included in current and long-term deferred revenue as of our balance sheet date represents the amounts that will be recognized ratably as revenue over the following twelve months, or longer as appropriate, until the ten-year expected term is complete. The balance of deferred revenue for activation fees was \$6.0 million and \$7.0 million as of December 31, 2021 and 2020, respectively, which combines current and long-term balances.

Cost of Revenue

Our cost of SaaS and license revenue primarily includes the amounts paid to wireless network providers and, to a lesser extent, the costs of running our network operations centers which are expensed as incurred, as well as patent and royalty costs in connection with technology licensed from third-party providers and amounts paid to distributed energy resource providers. Our cost of SaaS and license revenue also includes our cost of software license revenue, which primarily includes the payroll and payroll-related costs of the department dedicated to providing service exclusively to those service providers that host the Software platform. Our cost of software license revenue during the years ended December 31, 2021, 2020 and 2019 was \$1.1 million, \$1.3 million and \$1.3 million, respectively. Our cost of hardware and other revenue primarily includes cost of raw materials, tooling and amounts paid to our third-party manufacturer for production and fulfillment of our cellular radio modules and image sensors, and procurement costs for our video cameras, video recorders and gunshot detection sensors, which we purchase from an original equipment manufacturer, and other devices. Our cost of hardware and other revenue also includes royalty costs in connection with technology licensed from third-party providers.

We record the cost of SaaS and license revenue as expenses are incurred, which corresponds to the delivery period of our services to our subscribers. We record the cost of hardware and other revenue primarily when the hardware and other services are delivered to the service provider partner, which occurs when control of the hardware and other services transfers to the service provider partner. Our cost of revenue excludes amortization and depreciation shown in operating expenses.

Contract Asset and Contract Liability Balances

At contract inception, we assess the goods and services promised in our contracts with customers and identify a performance obligation for each distinct promise to transfer a good or service, or bundle of goods or services. To identify the performance obligations, we consider all of the goods or services promised in the contract, whether explicitly stated or implied based on customary business practices. We record a contract asset when we satisfy a performance obligation by transferring a promised good or service. Contract assets can be conditional or unconditional depending on whether another performance obligation must be satisfied before payment can be received. We receive payments from our service provider partners based on the billing schedule established in our contracts. All of the accounts receivable presented in the consolidated balance sheets represent unconditional rights to consideration. We do not have any assets from contracts containing conditional rights and we do not have any assets from satisfied performance obligations that have not been invoiced.

We recognize an asset related to the costs incurred to obtain a contract only if we expect to recover those costs and we would not have incurred those costs if the contract had not been obtained. We recognize an asset from the costs incurred to fulfill a contract if the costs (i) are specifically identifiable to a contract, (ii) enhance resources that will be used in satisfying performance obligations in future and (iii) are expected to be recovered. Our contract assets consist of capitalized commission costs and upfront payments made to a customer. Based on the policy above, we capitalize a portion of our commission costs as an incremental cost of obtaining a contract. When calculating the incremental cost of obtaining a contract, we exclude any

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commission costs related to metrics that could be satisfied without obtaining a contract, including training-related metrics. We amortize our commission costs over a period of three years, which is consistent with the period over which the products and services related to the commission are transferred to the customer. The three-year period was determined based on our review of historical enhancements and upgrades to our products and services. We applied the portfolio approach to account for the amortization of contract costs for those contracts that have similar characteristics. Upfront payments made to a customer are capitalized and amortized over the expected period of benefit and are recorded as a reduction to revenue.

Contract liabilities include payments received in advance of performance under the contract and are realized with the associated revenue recognized under the contract. All of the deferred revenue presented in the consolidated balance sheets represents contract liabilities resulting from advance cash receipts from customers or amounts billed in advance to customers from the sale of services. Changes in deferred revenue are due to our performance under the contract as well as to cash received from new contracts for which services have not been provided.

Research and Development

Our research and development costs consist primarily of personnel and related expenses for our employees working on our product development and software and device engineering teams, including salaries, bonuses, stock-based compensation, benefits and other personnel costs. Our research and development of new products and services is a multidisciplinary effort across our product management, program management, software engineering, device engineering, quality engineering, configuration management and network operations teams. Also included are non-personnel costs, such as consulting and professional fees paid to third-party development resources as well as acquisition costs of in-process research and development with no alternative future use. We invest substantial resources in research and development to enhance our platforms and applications, support our technology infrastructure, develop new capabilities and conduct quality assurance testing.

Fair Value Measurements

The accounting standard for fair value measurements provides a framework for measuring fair value and requires disclosures regarding fair value measurements. Fair value is defined as the price that would be received for an asset or the exit price that would be paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. This accounting standard established a fair value hierarchy, which requires an entity to maximize the use of observable inputs, where available. The following summarizes the three levels of inputs:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity can access at the measurement date;

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for similar assets and liabilities, either directly or indirectly; quoted prices in markets that are not active; and

Level 3 - Unobservable inputs supported by little or no market activity.

The carrying amount of financial assets, including cash and cash equivalents, accounts receivable and accounts payable approximates fair value because of the short maturity and liquidity of those instruments.

Assets and Liabilities Measured at Fair Value on a Recurring Basis - In 2021 and 2020, we recorded assets for our money market accounts. In 2021 and 2020, we recorded liabilities for a long-term incentive plan with one of our subsidiaries at fair value on a recurring basis with any changes recorded as a cumulative adjustment. During parts of 2020, we recorded liabilities for a contingent consideration liability related to acquisitions at fair value on a recurring basis.

Assets Measured at Fair Value on a Nonrecurring Basis - We measure certain assets, including property and equipment, goodwill and intangible and long-lived assets at fair value on a nonrecurring basis. These assets are recognized at fair value when they are deemed to be other-than-temporarily impaired. Additionally, equity investments without readily determinable fair values are recognized at fair value on a nonrecurring basis when observable price changes from orderly transactions for identical or similar investments become available.

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Concentration of Credit Risk

The financial instruments that potentially subject us to concentrations of credit risk consists principally of cash and cash equivalents and accounts receivables. All of our cash and cash equivalents are held at financial institutions that management believes to be of high credit quality. Our cash and cash equivalent accounts may exceed federally insured limits at times. We have not experienced any losses on cash and cash equivalents to date. To manage accounts receivable risk, we evaluate the credit worthiness of our service provider partners and maintain an allowance for credit losses. The majority of our accounts receivable balance is due from our service provider partners in North America. We assess the concentrations of credit risk with respect to accounts receivables based on one industry and one geographic region and believe that our reserve for uncollectible accounts is appropriate based on our history and this concentration.

Stock-Based Compensation

We compensate our executive officers, board of directors, employees and consultants with stock-based compensation plans under our 2015 Equity Incentive Plan, or 2015 Plan. We record stock-based compensation expense related to time-based restricted stock units based upon the award's grant date fair value and use an accelerated attribution method, net of actual forfeitures, in which compensation cost for each vesting tranche in an award is recognized ratably from the service inception date to the vesting date for that tranche. We record stock-based compensation expense related to performance-based restricted stock units based on management's determination of the probable outcome of the performance conditions and we record a cumulative adjustment in periods in which there is a change in the estimated number of shares expected to vest. Our equity awards generally vest over five years and are settled in shares of our common stock. During 2021, 2020 and 2019, we recognized compensation expense of \$38.7 million, \$29.2 million and \$20.6 million, respectively, and associated tax windfall benefit from stock-based awards of \$10.1 million, \$8.2 million and \$5.2 million, respectively. We account for stock-based compensation arrangements with non-employees based upon the award's grant date fair value. The fair value of these options is measured using the Black-Scholes option pricing model reflecting the same assumptions as applied to employee options in each of the reported periods, other than the expected life, which is assumed to be the remaining contractual life of the option.

Our Employee Stock Purchase Plan, or 2015 ESPP, allows eligible employees to purchase shares of our common stock at 90% of the fair market value of the closing price on the purchase date. The maximum number of shares of our common stock that a participant may purchase during any calendar year is limited to the lesser of 10% of the participant's base compensation for that year or the number of shares with a fair market value of \$15,000. The 2015 ESPP is considered compensatory for purposes of share-based compensation expense. Compensation expense is recognized for the amount of the discount, net of actual forfeitures, over the six-month purchase period.

401(k) Defined Contribution Plan

We adopted the Alarm.com Holdings 401(k) Plan, or the Plan, on April 30, 2009. All of our employees are eligible to participate in the Plan. For the years ended December 31, 2021 and 2020, our discretionary match was 100% of employee contributions up to 10% of salary and up to a \$5,000 maximum match. For the year ended December 31, 2019, our discretionary match was 100% of employee contributions up to 10% of salary and up to a \$4,000 maximum match. We recognized compensation expense of \$5.5 million, \$5.0 million and \$3.2 million for the years ended December 31, 2021, 2020 and 2019, respectively, related to our matching contributions.

Business Combinations

We are required to allocate the purchase price of acquired companies to the identifiable tangible and intangible assets acquired and liabilities assumed at the acquisition date based upon their estimated fair values. The net assets and results of operations of an acquired entity are included in our consolidated financial statements from the acquisition date. Acquisition-related costs are expensed as incurred. Goodwill as of the acquisition date represents the excess of the purchase consideration of an acquired business over the fair value of the underlying net tangible and intangible assets acquired net of liabilities assumed. This valuation requires management to apply significant judgment in estimating the fair value of long-lived and intangible assets acquired, which involves the use of significant estimates and assumptions.

Significant estimates and assumptions in valuing intangible assets include estimates about future expected cash flows, discount rates, attrition rates related to certain acquired customer relationships, royalty rates and obsolescence factors related to acquired developed technology and royalty rates relate to acquired trade names.

During the measurement period, we may record adjustments to the assets acquired and liabilities assumed. Any adjustments to provisional amounts that are identified during the measurement period are recorded in the reporting period in which the adjustment amounts are determined. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to earnings.

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Some acquisitions may include contingent consideration, which is an obligation to make future payments to the seller contingent upon the achievement of future operational or financial targets. We estimated the fair value of the contingent consideration liability by using a Monte Carlo simulation model for determining each of the projected measures by using an expected distribution of potential outcomes. Significant estimates and assumptions in valuing contingent consideration include estimates about future financial results, revenue volatility and the discount rate. The fair value of the contingent consideration is estimated on a quarterly basis and changes in the fair value of the contingent consideration resulting from information that existed subsequent to the acquisition date are recorded in the consolidated statements of operations.

On October 21, 2019, we acquired 85% of the issued and outstanding capital stock of OpenEye. Certain stockholders of OpenEye had the right to receive an earn-out payment of up to an additional \$11.0 million based upon satisfaction of certain calendar 2020 revenue targets. The 2020 revenue targets were not met and the fair value of the contingent consideration liability related to the potential earn-out payment was zero as of December 31, 2021 and 2020.

Goodwill, Intangible Assets and Long-lived Assets

Goodwill

Goodwill represents the excess of (1) the aggregate of the fair value of consideration transferred in a business combination, over (2) the fair value of assets acquired, net of liabilities assumed. Goodwill is allocated to our reporting units, which are our operating segments or one level below our operating segments. Goodwill is not amortized, but is subject to annual impairment tests. We perform our annual impairment review of goodwill on October 1 and when a triggering event occurs between annual impairment tests. We test our goodwill at the reporting unit level. We perform either a qualitative analysis or a quantitative analysis every year depending on the changes to our goodwill balance as well as changes in our business and the economy. Qualitative factors we consider include, but are not limited to, macroeconomic conditions, industry and market conditions, company specific events, changes in circumstances and market capitalization. The amount of goodwill impairment is calculated as the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill.

For our 2021 annual impairment review, we performed a qualitative assessment for our Alarm.com reporting unit, our only reporting unit with a goodwill balance. Based on the results of our qualitative assessment, we determined that it was not more likely than not that the fair value of our reporting unit was less than its carrying amount, including goodwill. Therefore, we concluded that there was no goodwill impairment as of October 1, 2021. Our assessment was performed as of October 1, 2021, and we have determined there has been no triggering events that resulted in goodwill impairment from our assessment date through December 31, 2021.

Intangible Assets and Long-lived Assets

Intangible assets are initially valued at fair value using generally accepted valuation methods appropriate for the type of intangible asset. Intangible assets with definite lives are amortized over their estimated useful lives. We evaluate the recoverability of our intangible assets with definite lives and long-lived assets for impairment whenever events or circumstances indicate that the carrying amount of the assets may not be recoverable. Recoverability of intangible assets with definite lives and long-lived assets are measured by comparison of the carrying amount of the asset to the future undiscounted cash flows the asset is expected to generate. If the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired asset.

For the year ended December 31, 2021, we determined there was an impairment of \$0.1 million for an intangible asset acquired in 2014 related to customer relationships that no longer existed after December 31, 2021. For the years ended December 31, 2020 and 2019, we determined there were no impairments of our intangible assets with definite lives or long-lived assets.

Advertising Costs

We expense advertising costs as incurred. Advertising costs totaled \$9.6 million, \$11.9 million and \$7.5 million for the years ended December 31, 2021, 2020 and 2019, respectively. Advertising costs are included within sales and marketing expenses on our consolidated statements of operations.

Accounting for Income Taxes

We account for income taxes under the asset and liability method as required by accounting standards codification, or ASC 740, "Income Taxes," which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that are included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

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We record net deferred tax assets to the extent we believe these assets will more likely than not be realized. In making such a determination, we consider all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies and results of recent operations. Due to the uncertainty of realization of certain deferred tax assets related to our Canadian net operating losses and research and development tax credits, we established a valuation allowance of \$0.3 million during the second quarter of 2019, which remained at \$0.3 million as of December 31, 2021 and 2020. During 2020, we established a valuation allowance of \$1.3 million for state research and development tax credit carryforwards, which remained at \$1.3 million as of December 31, 2020. This valuation allowance increased to \$1.9 million as of December 31, 2021.

We are subject to income taxes in the United States and foreign jurisdictions based upon our business operations in those jurisdictions. Significant judgment is required in evaluating uncertain tax positions. We record uncertain tax positions in accordance with ASC 740-10 on the basis of a two-step process whereby (1) we determine whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position, and (2) with respect to those tax positions that meet the more-likely-than-not recognition threshold, we recognize the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority. We record interest and penalties as a component of our income tax provision.

Treasury Stock

We account for treasury stock under the cost method and present treasury stock, including any applicable commissions and fees, as a component of stockholders' equity in the consolidated balance sheets and statements of equity. Treasury stock held by us may be retired or reissued in the future.

Comprehensive Income

Our comprehensive income for each of the years ended December 31, 2021, 2020 and 2019 was equal to our net income disclosed in the consolidated statements of operations.

Earnings per Share

Our basic net income per share attributable to common stockholders is calculated by dividing the net income attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period.

Our diluted net income per share attributable to common stockholders is calculated by giving effect to all potentially dilutive common stock when determining the weighted-average number of common shares outstanding. For purposes of the diluted net income per share calculation, options to purchase common stock, restricted stock units and unvested shares issued upon the early exercise of options that are subject to repurchase are considered to be potential common stock.

Since we expect to settle the principal amount on our outstanding 2026 Notes in cash and any excess in cash or shares of our common stock, we use the treasury stock method for calculating any potential dilutive effect of the conversion spread on diluted net income per share, if applicable. The conversion spread has a dilutive impact on diluted net income per share of common stock when the average market price of our common stock for a given period exceeds the conversion price of \$147.19 per share for the 2026 Notes.

We have redeemable noncontrolling interest related to our 85% equity ownership interest in OpenEye. When calculating net income attributable to the common stockholders, net loss attributable to redeemable noncontrolling interest should be excluded from net income. As a result, net income attributable to the common stockholders is equal to the net income less (i) dividends paid on unvested shares with any remaining earnings allocated in accordance with the bylaws between the outstanding common and preferred stock and (ii) net loss attributable to redeemable noncontrolling interest as of the end of each period.

Recent Accounting Pronouncements

Adopted

On December 18, 2019, the Financial Accounting Standards Board, or FASB, issued ASU 2019-12, "*Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*," which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The update also simplifies GAAP for other areas of Topic 740 by clarifying and amending existing guidance to improve consistent application. The amendment in this update was effective for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. On January 1, 2021, we adopted Topic 740. This pronouncement did not have a material impact on our consolidated financial statements or disclosures.

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Not Yet Adopted

On March 12, 2020, the FASB issued ASU 2020-04, "*Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*," which provides optional guidance to ease the potential accounting burden associated with transitioning away from reference rates that are expected to be discontinued such as the Eurodollar Base Rate, or LIBOR. The update allows entities to elect not to apply certain modification accounting requirements to contracts affected by the discontinuation of a reference rate if certain criteria are met. The amendment was effective beginning March 12, 2020 and will continue to be effective through December 31, 2022. Due to the termination of our credit facility on January 20, 2021 (see Note 13), which was our only material agreement that used LIBOR, this pronouncement is not expected to have an impact on our consolidated financial statements or disclosures.

On August 5, 2020, the FASB issued ASU 2020-06, "*Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*," which simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity. The new guidance eliminates two of the three models in Subtopic 470-20 that require separating embedded conversion features from convertible instruments. The guidance also addresses how convertible instruments are accounted for in the diluted earnings per share calculation. The amendment in this update is effective for fiscal years beginning after December 15, 2021. Early adoption is permitted, but no earlier than fiscal years beginning after December 15, 2020. The guidance allows for either full retrospective adoption or modified retrospective adoption. We plan to use the modified retrospective adoption method, which will require us to record the effect of initially applying this guidance as a cumulative-effect adjustment to retained earnings on January 1, 2022. We have finalized our assessment of this guidance and on January 1, 2022, we will record a reclassification from equity to debt through an adjustment upon adoption that will decrease additional paid-in capital by \$56.5 million, net of tax; decrease deferred tax liabilities and assets by \$15.8 million and \$0.4 million, respectively; increase convertible senior notes, net by \$61.9 million; and increase retained earnings by \$10.0 million, net of tax. Specific to the 2026 Notes, we will also record less interest expense in 2022 and beyond 2022 as compared to 2021, due to eliminating the amortization of the debt discount on the equity component, which represented the embedded conversion feature. Additionally, this guidance requires that we adopt the if-converted method for computing diluted earnings per share, which will increase our diluted weighted average common shares outstanding and impact our earnings per share upon adoption. There will be no impact to our liquidity or cash flows as a result of adopting this guidance.

On October 28, 2021, the FASB issued ASU 2021-08, "*Business Combinations (Topic 606): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*," which requires that an entity recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606 as if it had originated the contracts. Generally, this should result in an acquirer recognizing and measuring the acquired contract assets and contract liabilities consistent with how they were recognized and measured in the acquiree's financial statements, if the acquiree prepared financial statements in accordance with GAAP. The amendment in this update is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. The guidance should be applied prospectively to business combinations occurring on or after the effective date of the amendment in this update. We are currently assessing the impact this pronouncement may have on our consolidated financial statements, which will be dependent on the nature and size of any potential future acquisitions.

Note 3. Revenue from Contracts with Customers

Contract Assets

Our contract assets consist of capitalized commission costs and upfront payments made to customers. The current portion of capitalized commission costs and upfront payments made to customers is included in other current assets within our consolidated balance sheets. The non-current portion of capitalized commission costs and upfront payments made to customers is reflected in other assets within our consolidated balance sheets.

We review the capitalized costs for impairment at least annually. Impairment exists if the carrying amount of the asset recognized from contract costs exceeds the remaining amount of consideration we expect to receive in exchange for providing the goods and services to which such asset relates, less the costs that relate directly to providing those good and services and that have not been recognized as an expense. We did not record an impairment loss on our contract assets during the years ended December 31, 2021, 2020 and 2019.

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The changes in our contract assets are as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Beginning of period balance	\$ 4,306	\$ 4,578	\$ 2,881
Commission costs and upfront payments to a customer capitalized in period	3,779	3,262	4,141
Amortization of contract assets	(3,565)	(3,534)	(2,444)
End of period balance	<u>\$ 4,520</u>	<u>\$ 4,306</u>	<u>\$ 4,578</u>

Contract Liabilities

Contract liabilities include payments received in advance of performance under the contract and are realized with the associated revenue recognized under the contract. The changes in our contract liabilities are as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Beginning of period balance	\$ 12,529	\$ 10,498	\$ 11,176
Revenue deferred and acquired in current period	13,947	12,247	6,127
Revenue recognized from amounts included in contract liabilities	(11,639)	(10,216)	(6,805)
End of period balance	<u>\$ 14,837</u>	<u>\$ 12,529</u>	<u>\$ 10,498</u>

The revenue recognized from amounts included in contract liabilities primarily relates to prepayment contracts with customers as well as payments of activation fees.

Note 4. Accounts Receivable, Net

The components of accounts receivable, net are as follows (in thousands):

	December 31,	
	2021	2020
Accounts receivable	\$ 108,897	\$ 89,502
Allowance for credit losses	(2,168)	(4,696)
Allowance for product returns	(1,181)	(1,480)
Accounts receivable, net	<u>\$ 105,548</u>	<u>\$ 83,326</u>

For the year ended December 31, 2021, we recorded a reduction to the provision for credit losses on our accounts receivable of \$0.8 million. For the years ended December 31, 2020 and 2019, we recorded a provision for credit losses on our accounts receivable of \$2.2 million and \$1.2 million, respectively.

For the years ended December 31, 2021 and 2020, we recorded a \$2.5 million and \$1.8 million reserve for product returns in our hardware and other revenue, respectively. For the year ended December 31, 2019, we recorded a reduction to the reserve for product returns of \$0.1 million in our hardware and other revenue. Historically, we have not experienced write-offs for uncollectible accounts or sales returns that have differed significantly from our estimates.

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Allowance for Credit Losses - Accounts Receivable

The changes in our allowance for credit losses for accounts receivable are as follows (in thousands):

	Year Ended December 31, 2021		Year Ended December 31, 2020	
	Alarm.com and Certain Subsidiaries	All Other Subsidiaries	Alarm.com and Certain Subsidiaries	All Other Subsidiaries
Beginning of period balance	\$ (4,442)	\$ (254)	\$ (2,500)	\$ (84)
Impact of adopting Topic 326	—	—	(212)	(155)
Recovery of / (provision for) expected credit losses	860	(85)	(2,109)	(53)
Write-offs	1,547	206	379	38
End of period balance	\$ (2,035)	\$ (133)	\$ (4,442)	\$ (254)

Note 5. Inventory

The components of inventory are as follows (in thousands):

	December 31,	
	2021	2020
Raw materials	\$ 15,823	\$ 9,475
Finished goods	59,453	34,806
Total inventory	\$ 75,276	\$ 44,281

Note 6. Property and Equipment, Net

Furniture, fixtures and office equipment, computer software and hardware, leasehold improvements and real property and improvements are recorded at cost and presented net of depreciation. We record land at historical cost. During the application development phase, we record capitalized development costs in our construction in progress account and then reclassify the asset to internal-use software when the project is ready for its intended use, which is usually when the code goes into production. Furniture, fixtures and office equipment and computer software and hardware are depreciated on a straight-line basis over lives ranging from three to five years. Internal-use software is amortized on a straight-line basis over a three-year period. Leasehold improvements are amortized on a straight-line basis over the shorter of the lease terms or the asset lives. Real property is amortized on a straight-line basis over lives ranging from 15 to 39 years and the improvements related to real property are amortized on a straight-line basis over the shorter of the life of the underlying real property or the asset lives.

The components of property and equipment, net are as follows (in thousands):

	December 31,	
	2021	2020
Furniture, fixtures and office equipment	\$ 8,124	\$ 6,811
Computer software and hardware	29,490	22,805
Internal-use software	8,957	8,949
Construction in progress	2,059	9,777
Leasehold improvements	30,219	25,546
Real property and improvements	9,252	4,917
Land	1,398	1,398
Total property and equipment	89,499	80,203
Accumulated depreciation	(47,786)	(35,407)
Property and equipment, net	\$ 41,713	\$ 44,796

Depreciation expense related to property and equipment for the years ended December 31, 2021, 2020 and 2019 was \$10.4 million, \$8.3 million and \$5.9 million, respectively. Amortization expense related to internal-use software of \$2.0 million, \$2.4 million and \$1.9 million was included in those expenses for the years ended December 31, 2021, 2020 and 2019, respectively. We had no disposals and write-offs of property and equipment that impacted the consolidated statements of operations during the years ended December 31, 2021, 2020 and 2019.

Note 7. Acquisitions

Asset Acquisitions

On December 16, 2021, EnergyHub, Inc., one of our wholly-owned subsidiaries, acquired certain assets of an unrelated third party. Substantially all of the acquired assets consisted of developed technology. We believe the acquisition of the developed technology will continue to advance our load-shaping energy management solution allowing additional devices to participate in utility programs that reduce or shift power consumption during peak demand periods.

In consideration for the purchase of the developed technology, we paid \$4.2 million in cash in December 2021, with the remaining \$0.9 million expected to be paid 18 months following the acquisition date, subject to offset for any indemnification obligations. Additionally, we incurred \$0.2 million in direct transaction costs related to legal fees during 2021 that were capitalized as a component of the consideration transferred. The combined \$5.3 million consideration related to developed technology was recorded as an intangible asset at the time of the asset acquisition and will be amortized on a straight-line basis over an estimated useful life of seven years.

On March 31, 2020, Alarm.com Incorporated, one of our wholly-owned subsidiaries, acquired certain assets of an unrelated third party. Substantially all of the acquired assets consisted of in-process research and development, or IPR&D. We believe the acquisition of the IPR&D will continue to further our commitment to make significant investments in innovative research and development in the intelligently connected property market to broaden our suite of solutions.

In consideration for the purchase of the IPR&D, we paid \$2.1 million in cash on March 31, 2020, \$0.1 million in December 2019 and the remaining \$0.7 million in April 2021. The \$2.9 million consideration related to IPR&D was expensed at the time of the asset acquisition and was included in research and development expense in our consolidated statements of operations during 2020, as the IPR&D had no alternative future use.

On March 12, 2020, Alarm.com Incorporated acquired certain assets of an unrelated third party. Substantially all of the acquired assets consisted of IPR&D. We believe the acquisition of the IPR&D will continue to strengthen our smart intercom capability, including building access security and convenience within the multiple dwelling unit market for residents, guests and deliveries.

In consideration for the purchase of the IPR&D, we paid \$1.2 million in cash on March 12, 2020 and the remaining \$0.3 million in September 2021. The \$1.5 million consideration related to IPR&D was expensed at the time of the asset acquisition and was included in research and development expense in our consolidated statements of operations during 2020, as the IPR&D had no alternative future use.

On September 18, 2019, Alarm.com Incorporated acquired certain assets of an unrelated third party. Substantially all of the acquired assets consisted of IPR&D. We believe the acquisition of the IPR&D will continue to strengthen our comprehensive suite of cloud-based solutions.

In consideration for the purchase of the IPR&D, we paid \$0.9 million in cash on September 18, 2019 and the remaining \$0.1 million in March 2021. The \$1.0 million consideration related to IPR&D was expensed at the time of the asset acquisition and was included in research and development expense in our consolidated statements of operations during 2019, as the IPR&D had no alternative future use.

Acquisition of a Business - Shooter Detection Systems

On December 14, 2020, Alarm.com Incorporated acquired 100% of the issued and outstanding ownership interest units of Shooter Detection Systems, LLC, or SDS. SDS provides an indoor gunshot detection solution through the Guardian Indoor Active Shooter Detection System, which uses a combination of acoustic and infrared sensors and proprietary algorithms to detect gunshots and communicate shooting incident details to building occupants and security teams. The acquisition of SDS expands our commercial solutions and helps our partners outfit commercial and enterprise customers with the indoor gunshot detection solution.

In consideration for the purchase of 100% of the issued and outstanding ownership interest units of SDS, we paid \$26.6 million in cash on December 14, 2020. Pursuant to the terms of the unit purchase agreement, following the preliminary determination of the working capital of SDS as of the closing date, the purchase price decreased by \$0.1 million. The purchase price allocation was finalized during the second quarter of 2021, including the working capital adjustment, resulting in a measurement period adjustment to increase the purchase consideration by \$0.1 million and to increase goodwill by \$0.1 million.

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The table below sets forth the purchase consideration and the fair value allocation of the tangible and intangible net assets acquired (in thousands):

	December 14, 2020
<i>Calculation of Purchase Consideration:</i>	
Cash paid, net of working capital adjustment	\$ 26,577
Total consideration	\$ 26,577
 <i>Tangible and Intangible Net Assets:</i>	
Cash	\$ 311
Accounts receivable	1,179
Inventory	917
Other current assets	240
Property and equipment	77
Operating lease right-of-use assets	384
Other assets	348
Customer relationships	2,362
Developed technology	13,522
Trade name	512
Accounts payable	(19)
Accrued expenses	(111)
Operating lease current liabilities	(51)
Operating lease liabilities	(333)
Goodwill	7,239
Total tangible and intangible net assets	\$ 26,577

Goodwill of \$7.2 million reflects the value of acquired workforce and synergies we expect to achieve from expanding our commercial solutions through SDS's indoor gunshot detection solution. The goodwill recognized is expected to be deductible for income tax purposes in future periods. We allocate goodwill to reporting units based on expected benefit from synergies and have allocated the goodwill to the Alarm.com segment.

Fair Value of Net Assets Acquired and Intangibles

In accordance with ASC 805, "Business Combinations," SDS constituted a business and the assets and liabilities were recorded at their respective fair values as of December 14, 2020. We developed our estimate of the fair value of intangible net assets using the with-and-without method for customer relationships, the multi-period excess earnings method for the developed technology and the relief-from-royalty method for the trade name.

Customer Relationships

We recorded the customer relationships intangible separately from goodwill based on determination of the length, strength and contractual nature of the relationship that SDS shared with its customers. We valued the single group of customer relationships using the with-and-without method, an income approach. The significant assumptions used in the with-and-without method include estimates about future expected cash flows from customer contracts and the discount rate. We are amortizing the customer relationships, valued at \$2.4 million, on an attribution basis derived from the discounted cash flows of the model over an estimated useful life of six years.

Developed Technology

Developed technology primarily consists of intellectual property of proprietary software that is marketed for sale. We valued the developed technology by applying the multi-period excess earnings method, an income approach. The significant assumptions used in the multi-period excess earnings method include estimates about future expected cash flows from the developed technology, the obsolescence factor and the discount rate. We are amortizing the SDS developed technology, valued at \$13.5 million, on an attribution method based on the discounted cash flows of the model over an estimated useful life of seven years.

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Trade Name

We valued the trade names acquired using a relief from royalty method. The significant assumptions used in relief from royalty method include future expected cash flows from the trade name, the royalty rate and the discount rate. We are amortizing the trade names, valued at \$0.5 million, on an attribution basis derived from the discounted cash flows of the model over an estimated useful life of five years.

Acquisition of a Business - OpenEye

On October 21, 2019, Alarm.com Incorporated acquired 85% of the issued and outstanding capital stock of OpenEye. OpenEye provides cloud-managed video surveillance solutions for the enterprise commercial market. The acquisition of OpenEye provides a key element to our comprehensive suite of interactive cloud-based services spanning video, access control, intrusion and automation for domestic and international commercial enterprises.

In consideration for the purchase of 85% of the issued and outstanding capital stock of OpenEye, we paid \$61.2 million in cash on October 21, 2019, after deducting \$2.8 million related to an agreed holdback. Pursuant to the terms of the stock purchase agreement, following the preliminary determination of the working capital of OpenEye as of the closing date, the purchase price increased by \$0.2 million. The working capital adjustment was finalized and paid to the stockholders of OpenEye in the second quarter of 2020 along with a portion of the holdback. The remaining amount of the holdback is expected to be paid to the stockholders of OpenEye by the fourth quarter of 2022, subject to offset for any indemnification obligations. An earn-out of up to an additional \$11.0 million was payable if certain calendar 2020 revenue targets were met, of which contingent consideration of \$2.8 million was recorded as of October 21, 2019. The 2020 revenue targets were not met and the fair value of the contingent consideration liability related to the potential earn-out payment was zero as of December 31, 2021 and 2020.

The table below sets forth the purchase consideration and the fair value allocation of the tangible and intangible net assets acquired (in thousands):

	<u>October 21, 2019</u>
<i>Calculation of Purchase Consideration:</i>	
Cash paid, net of working capital adjustment	\$ 61,403
Holdback consideration	2,820
Contingent consideration	2,793
Total consideration	<u>\$ 67,016</u>
<i>Tangible and Intangible Net Assets:</i>	
Cash	\$ 2,352
Accounts receivable	5,742
Inventory	4,687
Other current assets	216
Property and equipment	296
Customer relationships	19,805
Developed technology	16,583
Trade name	2,219
Accounts payable	(2,746)
Accrued expenses	(1,017)
Other current liabilities	(1,683)
Deferred tax liability	(9,209)
Deferred revenue	(889)
Redeemable noncontrolling interest	(11,411)
Goodwill	42,071
Total tangible and intangible net assets	<u>\$ 67,016</u>

Goodwill of \$42.1 million reflects the value of acquired workforce and synergies we expect to achieve from integrating OpenEye's cloud-managed video surveillance solutions into our existing comprehensive suite of interactive cloud-based services

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for domestic and international commercial enterprises. None of the goodwill recognized is expected to be deductible for income tax purposes in future periods. We allocate goodwill to reporting units based on expected benefit from synergies and have allocated the goodwill to the Alarm.com segment.

The purchase price allocation for the purchase of 85% of the issued and outstanding capital stock of OpenEye was finalized during the second quarter of 2020. The final fair value of the assets and liabilities reflects an increase of \$0.7 million in the deferred tax liability and an increase of \$0.7 million in goodwill based on a measurement period adjustment determined upon filing of the pre-acquisition period tax return related to our purchase of 85% of the issued and outstanding capital stock of OpenEye.

Fair Value of Net Assets Acquired and Intangibles

In accordance with ASC 805, “*Business Combinations*,” OpenEye constituted a business and the assets and liabilities were recorded at their respective fair values as of October 21, 2019. We developed our estimate of the fair value of intangible net assets using a multi-period excess earnings method for customer relationships, the relief from royalty method for the developed technology and the relief-from-royalty method for the trade name.

Customer Relationships

We recorded the customer relationships intangible separately from goodwill based on determination of the length, strength and contractual nature of the relationship that OpenEye shared with its customers. We valued the single group of customer relationships using the multi-period excess earnings method, an income approach. The significant assumptions used in the income approach include estimates about future expected cash flows from customer contracts, the attrition rate and the discount rate. We are amortizing the customer relationships, valued at \$19.8 million, on an attribution basis derived from the discounted cash flows of the model over an estimated useful life of 13 years.

Developed Technology

Developed technology primarily consists of intellectual property of proprietary software that is marketed for sale. We valued the developed technology by applying the relief from royalty method, an income approach. The significant assumptions used in the relief from royalty method include estimates about future expected cash flows from the developed technology, the royalty rate, the obsolescence factor and the discount rate. We are amortizing the OpenEye developed technology, valued at \$16.6 million, on an attribution method based on the discounted cash flows of the model over an estimated useful life of nine years.

Trade Name

We valued the trade names acquired using a relief from royalty method. The significant assumptions used in the income approach include future expected cash flows from the trade name, the royalty rate and the discount rate. We are amortizing the trade names, valued at \$2.2 million, on an attribution basis derived from the discounted cash flows of the model over an estimated useful life of five years.

Redeemable Noncontrolling Interests

Our redeemable noncontrolling interest relates to our 85% equity ownership interest in OpenEye. The OpenEye stockholder agreement contains a put option that gives the minority OpenEye stockholders the right to sell their remaining 15% equity ownership interest to us based on the fair value of the shares. The OpenEye stockholder agreement also contains a call option that gives us the right to purchase the remaining OpenEye shares from the minority OpenEye stockholders based on the fair value of the shares. The put and call options can each be exercised beginning in the first quarter of 2023. The redeemable noncontrolling interest was recorded at fair value on October 21, 2019, by applying the income approach using unobservable inputs for projected cash flows, including projected financial results and a discount rate, which are considered Level 3 inputs. This redeemable noncontrolling interest is considered temporary equity and we report it between liabilities and stockholders' equity in the consolidated balance sheets. The redemption value of the noncontrolling interest was \$11.4 million as of October 21, 2019, and increased to \$12.9 million as of December 31, 2021.

Contingent Consideration

We accounted for the contingent consideration related to the potential earn-out payment using fair value and established a liability for the future earn-out payment based on an estimation of revenue attributable to perpetual licenses and subscription licenses over the 2020 calendar year. As of October 21, 2019, the fair value of the liability was \$2.8 million. As of December 31, 2020, the 2020 revenue targets were not met and the fair value of the contingent consideration related to the potential earn-out payment decreased to zero. See Note 10 for details on the significant unobservable inputs used in the fair value estimate and post-acquisition accounting.

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Unaudited Pro Forma Information - SDS

The following unaudited pro forma data is presented as if SDS were included in our historical consolidated statements of operations beginning January 1, 2019. These pro forma results do not necessarily represent what would have occurred if all the business combination had taken place on January 1, 2019, nor do they represent the results that may occur in the future.

This pro forma financial information includes our historical financial statements and those of our SDS business combination with the following adjustments: (i) we adjusted the pro forma amounts for income taxes, (ii) we adjusted for amortization expense assuming the fair value adjustments to intangible assets had been applied beginning January 1, 2019, and (iii) we adjusted for transaction fees incurred and reclassified them to January 1, 2019.

The pro forma adjustments were based on available information and upon assumptions that we believe are reasonable to reflect the impact of these acquisitions on our historical financial information on a supplemental pro forma basis, as follows (in thousands, except per share data):

	Pro Forma Year Ended December 31,	
	2020	2019
Revenue	\$ 626,080	\$ 508,662
Net income attributable to common stockholders	75,258	52,999
Net income attributable to common stockholders per share - basic	\$ 1.54	\$ 1.08
Net income attributable to common stockholders per share - diluted	\$ 1.48	\$ 1.04

Business Combinations in Operations - SDS

The operations of the SDS business combination discussed above were included in the consolidated financial statements as of the acquisition date. The following table presents the revenue and losses of the business combination in the year of acquisition as reported within the consolidated financial statements (in thousands):

	Year Ended December 31, 2020
Revenue	\$ 334
Net loss	(413)

Unaudited Pro Forma Information - OpenEye

The following unaudited pro forma data is presented as if OpenEye were included in our historical consolidated statements of operations beginning January 1, 2018. These pro forma results do not necessarily represent what would have occurred if all the business combination had taken place on January 1, 2018, nor do they represent the results that may occur in the future.

This pro forma financial information includes our historical financial statements and those of our OpenEye business combination with the following adjustments: (i) we adjusted the pro forma amounts for income taxes, (ii) we adjusted for amortization expense assuming the fair value adjustments to intangible assets had been applied beginning January 1, 2018, and (iii) we adjusted for transaction fees incurred and reclassified them to January 1, 2018.

The pro forma adjustments were based on available information and upon assumptions that we believe are reasonable to reflect the impact of these acquisitions on our historical financial information on a supplemental pro forma basis, as follows (in thousands, except per share data):

	Pro Forma Year Ended December 31,	
	2019	2018
Revenue	\$ 527,550	\$ 451,013
Net income attributable to common stockholders	51,075	13,264
Net income attributable to common stockholders per share - basic	\$ 1.05	\$ 0.27
Net income attributable to common stockholders per share - diluted	\$ 1.02	\$ 0.26

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Business Combinations in Operations - OpenEye

The operations of the OpenEye business combination discussed above were included in the consolidated financial statements as of the acquisition date. The following table presents the revenue and losses of the business combination in the year of acquisition as reported within the consolidated financial statements (in thousands):

	Year Ended December 31, 2019
Revenue	\$ 5,863
Net loss	(1,646)

Note 8. Goodwill and Intangible Assets, Net

The changes in goodwill by reportable segment are outlined below (in thousands):

	Alarm.com	Other	Total
Balance as of January 1, 2020	\$ 104,963	\$ —	\$ 104,963
Goodwill acquired	7,176	—	7,176
Measurement period adjustment	699	—	699
Balance as of December 31, 2020	112,838	—	112,838
Goodwill acquired	—	—	—
Measurement period adjustment	63	—	63
Balance as of December 31, 2021	\$ 112,901	\$ —	\$ 112,901

On December 14, 2020, we acquired 100% of the issued and outstanding ownership interest units of SDS and recorded \$7.2 million of goodwill in the Alarm.com segment. There were no impairments of goodwill recorded during the years ended December 31, 2021, 2020 or 2019. As of December 31, 2021, the accumulated balance of goodwill impairments was \$4.8 million, which is related to our acquisition of EnergyHub in 2013.

The following table reflects changes in the net carrying amount of the components of intangible assets (in thousands):

	Customer Relationships	Developed Technology	Trade Name	Total
Balance as of January 1, 2020	\$ 84,396	\$ 16,820	\$ 2,222	\$ 103,438
Intangible assets acquired	2,362	13,522	512	16,396
Amortization	(14,088)	(2,119)	(368)	(16,575)
Balance as of December 31, 2020	72,670	28,223	2,366	103,259
Intangible assets acquired	—	5,307	—	5,307
Impairment of intangible assets	(86)	—	—	(86)
Amortization	(13,158)	(3,373)	(543)	(17,074)
Balance as of December 31, 2021	\$ 59,426	\$ 30,157	\$ 1,823	\$ 91,406

We recorded \$17.1 million, \$16.6 million and \$14.2 million of amortization related to our intangible assets for the years ended December 31, 2021, 2020 and 2019, respectively. We determined there was an impairment of \$0.1 million for the remaining value of an intangible asset in the Alarm.com segment that was acquired in 2014 related to customer relationships that no longer existed after December 31, 2021, which was included in other (expense) / income, net in our consolidated statements of operations for the year ended December 31, 2021. There were no impairments of long-lived intangible assets during the years ended December 31, 2020 and 2019.

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The following tables reflect the weighted-average remaining life and carrying value of finite-lived intangible assets (in thousands, except weighted-average remaining life):

December 31, 2021					
	Gross Carrying Amount	Impairment of Intangible Assets	Accumulated Amortization	Net Carrying Value	Weighted-Average Remaining Life (in years)
Customer relationships	\$ 126,093	\$ (86)	\$ (66,581)	\$ 59,426	7.9
Developed technology	49,371	—	(19,214)	30,157	6.5
Trade name	3,815	—	(1,992)	1,823	3.1
Other	234	—	(234)	—	0.0
Total intangible assets	\$ 179,513	\$ (86)	\$ (88,021)	\$ 91,406	7.4

December 31, 2020				
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value	Weighted-Average Remaining Life (in years)
Customer relationships	\$ 126,093	\$ (53,423)	\$ 72,670	8.8
Developed technology	44,064	(15,841)	28,223	7.3
Trade name	3,815	(1,449)	2,366	4.0
Other	234	(234)	—	0.0
Total intangible assets	\$ 174,206	\$ (70,947)	\$ 103,259	8.3

The following table reflects the future estimated amortization expense for intangible assets (in thousands):

Year Ended December 31,	Amortization
2022	\$ 18,275
2023	16,933
2024	14,998
2025	12,812
2026	10,993
2027 and thereafter	17,395
Total future amortization expense	\$ 91,406

Note 9. Other Assets

Purchases of Patents and Patent Licenses

From time to time, we enter into agreements to purchase patents or patent licenses. In April 2020, we purchased 30 patents for \$0.9 million and in October 2020, we purchased one patent for \$0.2 million. The carrying value, net of amortization, of our purchased patents and patent licenses was \$2.2 million and \$2.9 million as of December 31, 2021 and 2020, respectively. As of December 31, 2021 and 2020, \$0.6 million and \$0.7 million of patent costs were included in other current assets and \$1.6 million and \$2.2 million of patent costs were included in other assets, respectively. We have \$7.0 million of historical cost in purchased patents and patent licenses as of December 31, 2021. We are amortizing the patent costs over the estimated useful lives of the patents, which range from three years to eighteen years. Patent cost amortization of \$0.4 million was included in cost of SaaS and license revenue in our consolidated statements of operations for each of the years ended December 31, 2021, 2020 and 2019. Patent cost amortization of \$0.3 million, \$0.2 million and \$0.1 million was included in amortization and depreciation in our consolidated statements of operations for the year ended December 31, 2021, 2020 and 2019, respectively.

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Loan to a Distribution Partner

In September 2016, we entered into dealer and loan agreements with a distribution partner. The dealer agreement enables the distribution partner to resell our SaaS services and hardware to their subscribers. Under the loan agreements, we agreed to loan the distribution partner up to \$4.0 million, collateralized by all assets owned by the distribution partner. The advance period for the loan was amended in August 2017 to begin each year on September 1 and end each year on December 31. Interest on the outstanding principal accrued at a rate per annum equal to the greater of 6.0% or LIBOR, plus 4.0%, as determined on the first date of each annual advance period. The repayment of principal and accrued interest was due in three installments beginning in July and ending in August following the advance period. The maturity date of the loan was August 31, 2019; however, the borrower had the option to extend the term of the loan for two successive terms of one year each.

In May 2018, the loan agreement with our distribution partner was amended to convert the entire \$4.0 million note receivable outstanding into a \$4.0 million term loan. The term loan had a maturity date of July 31, 2022 and required annual principal repayments of \$1.0 million on July 31 of each year, commencing on July 31, 2019. The term loan also required monthly interest payments, with interest accruing on the outstanding principal balance at a rate per annum equal to 6.0% through June 30, 2018 and a rate per annum equal to the LIBOR rate on the first of any interest period plus 7.0% beginning on July 1, 2018.

In April 2017, we entered into a subordinated credit agreement with an affiliated entity of the distribution partner and loaned the affiliated entity \$3.0 million, with a maturity date of November 21, 2022. Interest on the outstanding principal balance accrued at a rate of 8.5% per annum and required monthly interest payments.

In June 2020, we amended the term loan with our distribution partner and also amended the subordinated credit agreement with the affiliated entity of the distribution partner. At the time of the amended term loan and subordinated credit agreement in June 2020, the outstanding balance of the term loan was \$3.0 million and the outstanding balance of the subordinated credit agreement was \$3.0 million. Under the amended terms, the distribution partner paid us \$2.0 million in principal for the term loan on June 9, 2020 and the remaining \$1.0 million was transferred to the amended subordinated credit agreement with the affiliated entity of the distribution partner. As of December 31, 2021 and 2020, none of the notes receivable balance related to the amended term loan was outstanding.

The amended subordinated credit agreement with the affiliated entity of the distribution partner matures on September 9, 2025 and interest on the outstanding principal balance accrues at a rate of 9.0% per annum and is payable in kind. As of December 31, 2021 and 2020, \$4.6 million and \$4.2 million of the notes receivable balance related to the subordinated credit agreement was included in other assets in our consolidated balance sheets, respectively.

For the years ended December 31, 2021, 2020 and 2019, we recognized \$3.0 million, \$2.4 million and \$1.9 million of revenue from the distribution partners associated with these loans, respectively.

Loan to a Service Provider Partner

In July 2020, we entered into a loan agreement with a service provider partner, under which we agreed to loan the service provider partner up to \$2.5 million, collateralized by the assets of the service provider partner. Interest on the outstanding principal accrues at a rate per annum equal to 9.0% and monthly interest and principal payments began in April 2021. The maturity date of the loan is July 24, 2025. As of December 31, 2021 and 2020, \$1.2 million of principal was outstanding from the service provider partner under the loan agreement.

For the years ended December 31, 2021, 2020 and 2019, we recognized \$0.2 million, \$0.1 million and less than \$0.1 million of revenue from the service provider partner associated with this loan, respectively.

Loan to and Investment in a Hardware Supplier

In October 2018, we entered into a subordinate convertible promissory note with one of our hardware suppliers, or the October 2018 Promissory Note, which was subsequently amended. In March 2019, we entered into a separate secured promissory note with the same hardware supplier, which, together with the October 2018 Promissory Note, we refer to as the Promissory Notes. Under the Promissory Notes, we agreed to provide the hardware supplier loans of up to \$7.4 million, collateralized by all assets owned by the supplier.

In March 2019, we also purchased and acquired a secured promissory note, or the Acquired Promissory Note, that matured on March 30, 2019 and was originally executed between our hardware supplier and another third-party secured creditor. The Acquired Promissory Note had an outstanding balance of \$26.6 million as of December 31, 2018, including interest. We paid \$16.4 million to the third-party secured creditor in exchange for all of the rights associated with the Acquired Promissory Note, including a security interest and a right to enforce that interest against all assets owned by the hardware supplier. We also paid an additional \$6.0 million the third-party secured creditor in September 2019 based on the outcome of certain contingencies

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measured as of May 4, 2019. The fair value of the Acquired Promissory Note at the date of purchase was \$22.4 million, which represented the initial cash consideration paid in March 2019 and the contingent consideration paid in September 2019.

On June 24, 2019, we received a payment of \$7.4 million from the supplier for the partial satisfaction of amounts due under the Promissory Notes and the Acquired Promissory Note. On July 15, 2019, we received an additional payment of \$25.0 million from the supplier and converted the outstanding notes receivable balance of \$5.6 million into 9,520,832 shares of Series B preferred stock in the hardware supplier. We concluded that the \$5.6 million equity investment, which is included in the Alarm.com segment, does not meet the criteria for consolidation and will be accounted for using the measurement alternative. Under the measurement alternative, we measure investments without readily determinable fair values at cost, less impairment, adjusted for observable price changes from orderly transactions for identical or similar investments. As of December 31, 2021 and 2020, our investment in the hardware supplier was \$5.6 million.

As a result of the \$25.0 million payment received and conversion of the \$5.6 million outstanding notes receivable balance into an equity investment on July 15, 2019, we recorded interest of \$1.7 million within interest income and a gain of \$6.9 million within other income, net, in our consolidated statements of operations during the year ended December 31, 2019, related to the Promissory Notes and the Acquired Promissory Note.

Investment in a Technology Partner

In December 2016, we paid \$0.3 million for a convertible promissory note with a technology partner. In April 2018, the \$0.3 million convertible promissory note converted into 135,135 shares of Series A-1 Preferred Stock. At the time of conversion, we determined there was no value related to the Series A-1 Preferred Stock. Based on observable price changes from orderly transactions for similar investments, we increased the amount of our investment by \$0.7 million and recorded a gain within other (expense) / income, net, in our consolidated statements of operations during the year ended December 31, 2020.

In February 2021, we paid \$5.0 million in cash to purchase 1,000,000 shares of Series B-2 Preferred Stock from the same technology partner as part of a financing round that included other investors. The \$5.0 million equity investment, which is included in the Alarm.com segment, does not meet the criteria for consolidation and is accounted for using the measurement alternative. Under the alternative, we measure investments without readily determinable fair values at cost, less impairment, adjusted for observable price changes from orderly transactions for identical or similar investments. Our investment in the technology partner was \$5.7 million and \$0.7 million as of December 31, 2021 and 2020, respectively.

Investment in a Platform Partner

On July 31, 2020, a platform partner, in which we held 3,548,820 shares of common stock of the platform partner, was acquired by an unrelated third party. As a result of the sale, we received proceeds of \$25.7 million in exchange for our shares of the platform partner's common stock and we recorded a gain of \$24.7 million within other income, net, in our consolidated statements of operations during the year ended December 31, 2020. As of December 31, 2021 and 2020, our investment in the platform partner was zero.

Allowance for Credit Losses - Notes Receivable

The changes in our allowance for credit losses for notes receivable are as follows (in thousands):

	Year Ended December 31, 2021		Year Ended December 31, 2020	
	Loan Receivables	Hardware Financing Receivables	Loan Receivables	Hardware Financing Receivables
Beginning of period balance	\$ (73)	\$ (16)	\$ —	\$ (16)
Impact of adopting Topic 326	—	—	(434)	(15)
(Provision for) / recovery of expected credit losses	(6)	15	360	(1)
Write-offs	—	—	1	16
End of period balance	\$ (79)	\$ (1)	\$ (73)	\$ (16)

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We manage our notes receivables using delinquency as a key credit quality indicator. The following tables reflect the current and delinquent notes receivable by class of financing receivables and by year of origination (in thousands):

December 31, 2021

Loan Receivables:	2021	2020	2019	2018	2017	Prior	Total
Current	\$ —	\$ 1,151	\$ 7	\$ —	\$ 4,602	\$ —	\$ 5,760
30-59 days past due	—	—	—	—	—	—	—
60-89 days past due	—	—	—	—	—	—	—
90-119 days past due	—	—	—	—	—	—	—
120+ days past due	—	—	—	—	—	—	—
Total	\$ —	\$ 1,151	\$ 7	\$ —	\$ 4,602	\$ —	\$ 5,760

Hardware Financing Receivables:

Current	\$ —	\$ —	\$ 4	\$ —	\$ —	\$ —	\$ 4
30-59 days past due	—	—	6	—	—	—	6
60-89 days past due	—	—	11	—	—	—	11
90-119 days past due	—	—	—	—	—	—	—
120+ days past due	—	—	—	—	—	—	—
Total	\$ —	\$ —	\$ 21	\$ —	\$ —	\$ —	\$ 21

December 31, 2020

Loan Receivables:	2020	2019	2018	2017	2016	Prior	Total
Current	\$ 1,200	\$ 17	\$ —	\$ 4,207	\$ —	\$ —	\$ 5,424
30-59 days past due	—	—	—	—	—	—	—
60-89 days past due	—	—	—	—	—	—	—
90-119 days past due	—	—	—	—	—	—	—
120+ days past due	—	—	—	—	—	—	—
Total	\$ 1,200	\$ 17	\$ —	\$ 4,207	\$ —	\$ —	\$ 5,424

Hardware Financing Receivables:

Current	\$ —	\$ 67	\$ 49	\$ —	\$ —	\$ —	\$ 116
30-59 days past due	—	—	—	2	—	—	2
60-89 days past due	—	57	27	—	—	—	84
90-119 days past due	—	—	—	—	—	—	—
120+ days past due	—	—	—	9	—	—	9
Total	\$ —	\$ 124	\$ 76	\$ 11	\$ —	\$ —	\$ 211

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The amortized cost of notes receivables placed on nonaccrual status is as follows (in thousands):

	<u>December 31, 2021</u>	<u>December 31, 2020</u>
Loan receivables	\$ —	\$ —
Hardware financing receivables	—	9
Total	<u>\$ —</u>	<u>\$ 9</u>

During the years ended December 31, 2021, 2020 and 2019, there was no interest income recognized related to notes receivables that were in nonaccrual status.

As of December 31, 2021 and 2020, there were no notes receivables placed in nonaccrual status for which there was not a related allowance for credit losses. As of December 31, 2021 and 2020, there were no notes receivables that were 90 days or greater past due for which we continued to accrue interest income.

Prepaid Expenses

As of December 31, 2021 and 2020, \$17.7 million and \$8.4 million of prepaid expenses were included in other current assets, respectively, primarily related to long lead-time parts related to our inventory and software licenses.

Note 10. Fair Value Measurements

The following tables presents our assets and liabilities measured at fair value on a recurring basis (in thousands):

	<u>Fair Value Measurements on a Recurring Basis</u>			
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Assets:				
Money market accounts as of December 31, 2021	\$ 679,278	\$ —	\$ —	\$ 679,278
Money market accounts as of December 31, 2020	221,407	—	—	221,407
Liabilities:				
Subsidiary long-term incentive plan December 31, 2021	\$ —	\$ —	\$ 3,351	\$ 3,351
Subsidiary long-term incentive plan December 31, 2020	—	—	1,000	1,000

The following table summarizes the change in fair value of the Level 3 liabilities for the subsidiary long-term incentive plan and contingent consideration liabilities from acquisitions with significant unobservable inputs (in thousands):

	<u>Year Ended December 31,</u>			
	<u>2021</u>		<u>2020</u>	
	<u>Subsidiary Long-Term Incentive Plan</u>	<u>Contingent Consideration Liability from Acquisitions</u>	<u>Subsidiary Long-Term Incentive Plan</u>	<u>Contingent Consideration Liability from Acquisitions</u>
Beginning of period balance	\$ 1,000	\$ —	\$ 574	\$ 2,595
Changes in fair value included in earnings	2,351	—	426	(2,595)
End of period balance	<u>\$ 3,351</u>	<u>\$ —</u>	<u>\$ 1,000</u>	<u>\$ —</u>

The money market accounts are included in our cash and cash equivalents in our consolidated balance sheets. Our money market assets are valued using quoted prices in active markets. See Note 13 for the carrying amount and estimated fair value of the 2026 Notes as of December 31, 2021.

The liability for the subsidiary long-term incentive plan consists of the potential cash payment contingent upon meeting certain financial milestones related to the agreement established with certain employees of one of our subsidiaries. This incentive plan was established in November 2017 and the amount of compensation awarded to employees depends on the fair market value of the subsidiary, which is determined in part by the subsidiary's projected financial results. We account for the subsidiary long-term incentive plan using fair value and establish liabilities for the future payments under the terms of the incentive plan based on estimating revenue, EBITDA and EBITDA margin of the subsidiary over the period of the incentive plan through the anticipated achievement of the milestones. We estimate the fair value of the liability by using a Monte Carlo

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simulation model which involves several Level 3 unobservable inputs. The significant unobservable inputs used in the valuation as of December 31, 2021 included a weighted average revenue volatility of 7.5% and a revenue risk adjustment of 2.4%. The revenue volatility was weighted using revenue volatility results from the subsidiary's peer group as well as market transaction metrics. The revenue risk adjustment was calculated using capital structure allocations from the subsidiary's peer group, market transaction metrics as well as United States Treasury yields. Selecting another revenue volatility or revenue risk adjustment within an acceptable range would not result in a significant change to the fair value of the subsidiary long-term incentive plan liability.

At each reporting date until the incentives are paid or expire, we will remeasure the liability, using the same valuation approach and we will record any changes as increases or decreases to the applicable operating expense category based on the respective employee's function (sales and marketing, general and administrative or research and development) as a cumulative adjustment. The remaining liability balances are included in other liabilities in our consolidated balance sheets (see Note 12).

The contingent consideration liability consisted of the potential earn-out payment related to our acquisition of 85% of the issued and outstanding capital stock of OpenEye on October 21, 2019. The earn-out payment was contingent on the satisfaction of certain calendar 2020 revenue targets and had a maximum potential payment of up to \$11.0 million. During parts of 2019 and 2020, we accounted for the contingent consideration using fair value and established a liability for the future earn-out payment based on an estimation of revenue attributable to perpetual licenses and subscription licenses over the 2020 calendar year. The contingent consideration liability was valued with significant unobservable inputs, including the revenue volatility and the discount rate. Selecting another revenue volatility or discount rate within an acceptable range would not have resulted in a significant change to the fair value of the contingent consideration liability. As of October 21, 2019, the fair value of the liability was \$2.8 million. At each reporting date until December 31, 2020, we remeasured the liability, using the same valuation approach. Changes in the fair value resulting from information that existed subsequent to the acquisition date were recorded in general and administrative expense in our consolidated statements of operations. As of December 31, 2020, the 2020 revenue targets were not met and the fair value of the contingent consideration related to the potential earn-out payment decreased to zero as compared to the initial liability recorded at the acquisition date, primarily due to OpenEye's 2020 actual revenue being less than the projected revenue. All contingencies related to the contingent consideration liability were resolved as of December 31, 2020 and no further estimates were necessary as of December 31, 2021.

We monitor the availability of observable market data to assess the appropriate classification of financial instruments within the fair value hierarchy. Changes in economic conditions or model-based valuation techniques may require the transfer of financial instruments from one fair value level to another. There were no transfers in or out of Level 3 during the years ended December 31, 2021, 2020 and 2019. We also monitor the value of the investments for other-than-temporary impairment on a quarterly basis. No other-than-temporary impairments occurred during the years ended December 31, 2021, 2020 and 2019.

Note 11. Leases

We lease office space, data centers and office equipment under non-cancelable operating leases with various expiration dates through 2027. In August 2014, we signed a lease for office space in Tysons, Virginia, where we relocated our headquarters to in February 2016. We have subsequently entered into amendments to this lease to provide us with additional office space. The lease term ends in 2026, includes a five-year renewal option and a cumulative tenant improvement allowance of \$12.1 million.

Supplemental information related to leases is presented in the table below (in thousands, except weighted-average term and discount rate):

	Year Ended December 31,		
	2021	2020	2019
Operating lease cost	\$ 9,692	\$ 8,888	\$ 7,600
Cash paid for amounts included in the measurement of operating lease liabilities	11,809	10,177	8,268
Operating lease right-of-use assets obtained in exchange for new operating lease liabilities	5,158	10,073	7,886
	December 31, 2021	December 31, 2020	
Weighted-average remaining lease term — operating leases	4.2 years	4.9 years	
Weighted-average discount rate — operating leases	3.6 %	3.6 %	

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Maturities of lease liabilities are as follows (in thousands):

Year Ended December 31,	Operating Leases ⁽¹⁾
2022	\$ 11,676
2023	11,268
2024	9,684
2025	8,336
2026	4,676
2027 and thereafter	677
Total lease payments	46,317
Less: imputed interest ⁽²⁾	3,395
Present value of lease liabilities	<u>\$ 42,922</u>

(1) Operating lease payments exclude \$0.9 million of legally binding minimum lease payments for leases executed but not yet commenced and includes \$1.0 million for options to extend lease terms that were reasonably certain of being exercised.

(2) Imputed interest was calculated using the incremental borrowing rate applicable for each lease.

Note 12. Liabilities

The components of accounts payable, accrued expenses and other current liabilities are as follows (in thousands):

	December 31, 2021	December 31, 2020
Accounts payable	\$ 64,751	\$ 38,163
Accrued expenses	19,894	11,449
Other current liabilities	5,171	4,315
Accounts payable, accrued expenses and other current liabilities	<u>\$ 89,816</u>	<u>\$ 53,927</u>

The components of other liabilities are as follows (in thousands):

	December 31, 2021	December 31, 2020
Holdback liability from asset acquisitions and business combinations	\$ 850	\$ 1,500
Subsidiary long-term incentive plan	3,351	1,000
Other liabilities	5,344	4,311
Other liabilities	<u>\$ 9,545</u>	<u>\$ 6,811</u>

Note 13. Debt, Commitments and Contingencies

The debt, commitments and contingencies described below would require us, or our subsidiaries, to make payments to third parties under certain circumstances.

Convertible Senior Notes

On January 20, 2021, we issued \$500.0 million aggregate principal amount of 0% convertible senior notes due January 15, 2026 in a private placement to qualified institutional buyers. The terms of the 2026 Notes are governed by an Indenture, or the Indenture, by and between Alarm.com Holdings, Inc. and U.S. Bank National Association, as trustee. The 2026 Notes are senior unsecured obligations that do not bear regular interest and the principal amount of the 2026 Notes will not accrete. The 2026 Notes may bear special interest under specified circumstances related to our failure to comply with our reporting obligations under the Indenture. Special interest, if any, will be payable semiannually in arrears on January 15 and July 15 of each year, beginning on July 15, 2021. We received proceeds from the issuance of the 2026 Notes of \$484.3 million, net of \$15.7 million of transaction fees and other debt issuance costs.

We may not redeem the 2026 Notes prior to January 20, 2024. We may redeem for cash, all or any portion of the 2026 Notes, at our option, on or after January 20, 2024, at a redemption price equal to 100% of the principal amount of the 2026 Notes to be redeemed, plus accrued and unpaid special interest, if any, to, but excluding, the redemption date, if the last reported sale

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price of our common stock has been at least 130% of the conversion price for the 2026 Notes then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide notice of redemption. No sinking fund is provided for the 2026 Notes.

The 2026 Notes will be convertible at the option of the holders at any time prior to the close of business on the business day immediately preceding August 15, 2025, only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on June 30, 2021 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price for the 2026 Notes on each applicable trading day; (2) during the five business day period immediately after any 10 consecutive trading day period in which, for each trading day of that period, the trading price per \$1,000 principal amount of 2026 Notes for such trading day was less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the 2026 Notes on each such trading day; (3) if we call any or all of the 2026 Notes for redemption, at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date, but only with respect to the 2026 Notes called (or deemed called) for redemption; or (4) upon the occurrence of specified corporate events as set forth in the Indenture.

On or after August 15, 2025, until the close of business on the second scheduled trading day immediately preceding the maturity date of the 2026 Notes, holders of the 2026 Notes may convert all or any portion of their 2026 Notes at any time, regardless of the foregoing conditions. Upon conversion, we may satisfy our conversion obligation by paying or delivering, as the case may be, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election. It is our current intent to settle the principal amount of the 2026 Notes with cash. The initial conversion rate for the 2026 Notes is 6.7939 shares of our common stock per \$1,000 principal amount of 2026 Notes, which is equivalent to an initial conversion price of \$147.19 per share of our common stock, subject to adjustment under certain circumstances in accordance with the terms of the Indenture. In addition, following certain corporate events that occur prior to the maturity date of the 2026 Notes or if we deliver a notice of redemption in respect of the 2026 Notes, we will, under certain circumstances, increase the conversion rate of the 2026 Notes for a holder who elects to convert its 2026 Notes (or any portion thereof) in connection with such a corporate event or convert its 2026 Notes called (or deemed called) for redemption during the related redemption period (as defined in the Indenture), as the case may be.

If we undergo a fundamental change (as defined in the Indenture), subject to certain exceptions and except as described in the Indenture, holders may require us to repurchase for cash all or any portion of their 2026 Notes at a fundamental change repurchase price equal to 100% of the principal amount of the 2026 Notes to be repurchased, plus accrued and unpaid special interest, if any, to, but excluding, the fundamental change repurchase date.

The Indenture includes customary covenants and sets forth certain events of default after which the 2026 Notes may be declared immediately due and payable and sets forth certain types of bankruptcy or insolvency events of default involving us after which the 2026 Notes become automatically due and payable.

We used some of the proceeds to repay the \$110.0 million outstanding principal balance under our credit facility and also used some of the proceeds to pay accrued interest, fees and expenses related to our credit facility (see the section titled "2017 Facility" below). We are using the remaining net proceeds from the issuance of the 2026 Notes for working capital and other general corporate purposes, which may include acquisitions or strategic investments in complementary businesses or technologies.

In accounting for the transaction, the 2026 Notes were separated into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar debt instrument that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the par value of the 2026 Notes. The equity component was recorded in additional paid-in capital and is not remeasured as long as it continues to meet the conditions for equity classification. The excess of the principal amount of the liability component over its carrying amount is amortized to interest expense over the contractual term of the 2026 Notes at an effective interest rate of 4.0%.

In accounting for the debt issuance costs of \$15.7 million related to the 2026 Notes, we allocated the total amount incurred to the liability and equity components of the 2026 Notes based on their relative values. Issuance costs attributable to the liability component were \$13.3 million and will be amortized to interest expense using the effective interest method over the contractual term of the 2026 Notes. Issuance costs attributable to the equity component were netted with the equity component in additional paid-in capital.

As of December 31, 2021, the fair value of our 2026 Notes was \$452.5 million. The fair value was determined based on the quoted price of the 2026 Notes in an inactive market on the last traded day of the quarter and has been classified as Level 2 in

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the fair value hierarchy. Based on the closing price of our common stock of \$84.81 on the last trading day of the quarter, the if-converted value of the 2026 Notes did not exceed the principal amount of \$500.0 million as of December 31, 2021.

The net carrying amount of the liability component of the 2026 Notes is as follows (in thousands):

	<u>December 31, 2021</u>	<u>December 31, 2020</u>
Principal	\$ 500,000	\$ —
Unamortized debt discount	(63,520)	—
Unamortized debt issuance costs	(11,135)	—
Net carrying amount	<u>\$ 425,345</u>	<u>\$ —</u>

The net carrying amount of the equity component of the 2026 Notes is as follows (in thousands):

	<u>December 31, 2021</u>	<u>December 31, 2020</u>
Debt discount for conversion option	\$ 77,199	\$ —
Debt issuance costs	(2,424)	—
Net carrying amount	<u>\$ 74,775</u>	<u>\$ —</u>

Interest expense related to the 2026 Notes is as follows (in thousands):

	<u>Year Ended December 31,</u>		
	<u>2021</u>	<u>2020</u>	<u>2019</u>
Amortization of debt discount	\$ 13,678	\$ —	\$ —
Amortization of debt issuance costs	2,139	—	—
Total interest expense	<u>\$ 15,817</u>	<u>\$ —</u>	<u>\$ —</u>

The difference between the book and tax treatment of the debt discount and debt issuance costs of the 2026 Notes resulted in a difference between the carrying amount and tax basis of the 2026 Notes. This taxable temporary difference resulted in the recognition of a \$18.3 million net deferred tax liability which was recorded as an adjustment to additional paid-in capital during the three months ended March 31, 2021.

2017 Facility

On October 6, 2017, we entered into a \$125.0 million senior secured revolving credit facility, or the 2017 Facility, with Silicon Valley Bank, or SVB, as administrative agent, PNC Bank, National Association, as documentation agent, and a syndicate of lenders. Upon entry into the 2017 Facility, we borrowed \$72.0 million, which was used to repay the previously outstanding balance under our previous credit facility. The 2017 Facility was set to mature in October 2022 and included an option to further increase the borrowing capacity to \$175.0 million with the consent of the lenders. Costs incurred in connection with the 2017 Facility were capitalized and were being amortized as interest expense over the term of the 2017 Facility. The 2017 Facility was secured by substantially all of our assets, including our intellectual property. On March 25, 2020, we borrowed \$50.0 million under the 2017 Facility as a precautionary measure in order to provide financial flexibility in light of current uncertainty in the financial markets resulting from the COVID-19 pandemic. On January 20, 2021, we repaid the entire outstanding principal balance of \$110.0 million of the 2017 Facility with proceeds from the 2026 Notes. The 2017 Facility was terminated on January 20, 2021 and we recognized an extinguishment loss of \$0.2 million in other (expense) / income, net in our consolidated statements of operations during the year December 31, 2021 for previously capitalized debt issuance costs related to the 2017 Facility that were unamortized at the time of the termination of the 2017 Facility.

The outstanding principal balance on the 2017 Facility accrued interest at a rate equal to, at our option, either (1) LIBOR, plus an applicable margin based on our consolidated leverage ratio, or (2) the highest of (a) the Wall Street Journal prime rate, (b) the Federal Funds rate plus 0.50%, or (c) LIBOR plus 1.00% plus an applicable margin based on our consolidated leverage ratio. During 2021, until the termination of the 2017 Facility on January 20, 2021, we elected for the outstanding principal balance to accrue interest at LIBOR plus 1.50%, LIBOR plus 1.75%, LIBOR plus 2.00%, and LIBOR plus 2.50% when our consolidated leverage ratio is less than 1.00:1.00, greater than or equal to 1.00:1.00 but less than 2.00:1.00, greater than or equal to 2.00:1.00 but less than 3.00:1.00 and greater than or equal to 3.00:1.00, respectively. The 2017 Facility also carried an unused line commitment fee of 0.20%. For the years ended December 31, 2020 and 2019, the effective interest rate on the 2017 Facility was 2.65% and 4.45%, respectively.

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The carrying value of the 2017 Facility was zero and \$110.0 million as of December 31, 2021 and 2020, respectively. The 2017 Facility included a variable interest rate that approximated market rates and, as such, we classified the liability as Level 2 within the fair value hierarchy and determined that the carrying amount of the 2017 Facility approximated its fair value as of December 31, 2020.

Commitments and Contingencies

Contingent Consideration

On October 21, 2019, we acquired 85% of the issued and outstanding capital stock of OpenEye. Certain stockholders of OpenEye had the right to receive an earn-out payment of up to an additional \$11.0 million based upon satisfaction of certain calendar 2020 revenue targets. At October 21, 2019, the fair value of the contingent consideration liability was \$2.8 million. At each reporting date until December 31, 2020, we remeasured the liability, using the same valuation approach. Changes in the fair value resulting from information that existed subsequent to the acquisition date were recorded in the consolidated statements of operations. As of December 31, 2020, the 2020 revenue targets were not met and the fair value of the contingent consideration related to the potential earn-out payment decreased to zero as compared to the initial liability recorded at the acquisition date, primarily due to OpenEye's 2020 actual revenue being less than the projected revenue (see Note 10).

Indemnification Agreements

We have various agreements that may obligate us to indemnify the other party to the agreement with respect to certain matters. Generally, these indemnification provisions are included in contracts arising in the normal course of business. Although we cannot predict the maximum potential amount of future payments that may become due under these indemnification agreements, we do not believe any potential liability that might arise from such indemnity provisions is probable or material.

Legal Proceedings

On June 2, 2015, Vivint, Inc., or Vivint, filed a lawsuit against us in U.S. District Court, District of Utah, alleging that our technology directly and indirectly infringes six patents that Vivint purchased. Vivint is seeking permanent injunctions, enhanced damages and attorneys' fees. We answered the complaint on July 23, 2015. Among other things, we asserted defenses based on non-infringement and invalidity of the patents in question. In 2017 and 2019, the U.S. Patent Trial and Appeal Board, or PTAB, issued final written decisions in inter partes reviews finding all or some of the claims in five of the asserted patents unpatentable. These decisions were affirmed on appeal. Vivint is proceeding with its case on three patents. Discovery closed on October 29, 2021. Vivint has moved for partial summary judgment and Alarm.com has moved for summary judgment; both motions are pending decision. No trial date has been set. On February 12, 2021, we filed an action in U.S. District Court, Eastern District of Virginia challenging the refusal by the U.S. Patent and Trademark Office, or PTO, to proceed with ex parte reexaminations of the remaining patent claims asserted in the lawsuit. The U.S. District Court, Eastern District of Virginia granted the PTO's motion to dismiss the case for lack of jurisdiction on June 22, 2021. We appealed the dismissal to the Federal Circuit on June 24, 2021.

Should Vivint prevail in proving Alarm.com infringes one or more of its patent claims, we could be required to pay damages of Vivint's lost profits and/or a reasonable royalty for sales of our solution. Since all remaining patent claims in the litigation have expired, Vivint shall not be entitled to injunctive relief as a remedy in this matter. While we believe we have valid defenses to Vivint's claims, any of these outcomes could result in a material adverse effect on our business. Based on currently available information, we have determined a loss is not probable or reasonably estimable at this time.

On January 10, 2022, EcoFactor, Inc., or EcoFactor, filed a lawsuit against us in U.S. District Court, District of Oregon, alleging Alarm.com's products and services directly and indirectly infringe five U.S. patents owned by EcoFactor. EcoFactor is seeking permanent injunctions, enhanced damages and attorneys' fees. Our response to the complaint is due on March 28, 2022. EcoFactor had previously asserted two of the same patents against us in an October 2019 complaint with the U.S. International Trade Commission, or ITC. In July 2021, the ITC found in favor of Alarm.com. EcoFactor appealed the decision but withdrew its appeal in December 2021. The other three asserted patents are currently in ex parte reexamination proceedings at the PTO, and one of them is also the subject of a pending inter partes review before the PTAB.

Should EcoFactor prevail in its lawsuit we could be required to pay damages and/or a reasonable royalty for sales of our solution, we could be enjoined from making, using and selling our solution if a license or other right to continue selling such elements is not made available to us, and we could be required to pay ongoing royalties and comply with unfavorable terms if such a license is made available to us. While we believe we have valid defenses to EcoFactor's claims, the outcome of these legal claims cannot be predicted with certainty and any of these outcomes could result in an adverse effect on our business. Based on currently available information, we have determined a loss is not probable or reasonably estimable at this time.

On July 22, 2021, Causam Enterprises, Inc., or Causam, filed a lawsuit against us in U.S. District Court, Western District of Texas, alleging that Alarm.com's smart thermostats infringe four U.S. patents owned by Causam. Causam is seeking preliminary

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and permanent injunctions, enhanced damages and attorneys' fees. We have not yet responded to the complaint. On September 3, 2021, the court issued an order staying the lawsuit until the ITC investigation described below is finally resolved.

On July 28, 2021, Causam filed a complaint with the ITC naming Alarm.com Incorporated, Alarm.com Holdings, Inc., and EnergyHub, Inc., among others, as proposed respondents. The complaint alleges infringement of the same four patents Causam asserted in district court. Causam is seeking a permanent limited exclusion order and permanent cease and desist order. On August 27, 2021, the ITC instituted an investigation into Causam's allegations naming Alarm.com Incorporated, Alarm.com Holdings, Inc., EnergyHub Inc. and others as respondents. We answered the complaint on October 4, 2021. Among other things, we asserted defenses based on non-infringement and invalidity of the patents in question. The administrative law judge presiding over the hearing has scheduled an evidentiary hearing in the investigation to begin on June 29, 2022. The target date for completion of the investigation is March 16, 2023.

Should Causam prevail in an ITC investigation, Alarm.com thermostats manufactured abroad could be excluded from importation into the United States. Should Causam prevail in its district court lawsuit we could be required to pay damages and/or a reasonable royalty for sales of our solution, we could be enjoined from making, using and selling our solution if a license or other right to continue selling such elements is not made available to us, and we could be required to pay ongoing royalties and comply with unfavorable terms if such a license is made available to us. While we believe we have valid defenses to Causam's claims, the outcome of these legal claims cannot be predicted with certainty, and any of these outcomes could result in an adverse effect on our business. Based on currently available information, we have determined a loss is not probable or reasonably estimable at this time.

In addition to the matters described above, we may be required to provide indemnification to certain of our service provider partners for certain claims regarding our solutions. For example, we are incurring costs associated with the indemnification of our service provider ADT, LLC in ongoing patent infringement suits.

On February 25, 2021, Vivint filed a lawsuit against ADT LLC a/k/a ADT LLC of Delaware d/b/a ADT Security Services in U.S. District Court, District of Utah, alleging that ADT Pulse, Control, and Blue each infringe one or more of six patents owned by Vivint. Vivint is seeking damages and attorneys' fees. Vivint filed an amended complaint on March 24, 2021. ADT answered the amended complaint on April 30, 2021 and asserted defenses based on non-infringement and invalidity of all the patents in question, and inequitable conduct as to one of the patents. On August 6, 2021, the parties to the case stipulated to the dismissal of Vivint's claims as to one of the six patents, leaving five in the case. On June 25, 2021, ADT filed a motion for judgment on the pleadings seeking judgment in its favor on the grounds that the claimed inventions are directed to ineligible subject matter. On February 22, 2022, the court denied the motion without prejudice and granted Vivint leave to file a second amended complaint. The case is currently in discovery, and no trial date has been set. One of the asserted patents is under inter partes review at the PTAB, and ADT has filed petitions for inter partes review for three other asserted patents for which decisions on institution are pending.

Should Vivint prevail on the claims that one or more elements of ADT's products infringe, we could be required to indemnify ADT for damages in the form of a reasonable royalty or ADT could be enjoined from making, using and selling our solution if a license or other right to continue selling our technology is not made available or we are unable to design around such patents, and required to pay ongoing royalties and comply with unfavorable terms if such a license is made available to us. The outcome of these legal claims cannot be predicted with certainty. We believe there are valid defenses to the claims made by Vivint. Based on currently available information, we have determined a loss is not probable or reasonably estimable at this time.

We may also be a party to litigation and subject to claims incident to the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business.

Other than the preceding matters, we are not a party to any lawsuit or proceeding that, in the opinion of management, is reasonably possible or probable of having a material adverse effect on our financial position, results of operations or cash flows. We reserve for contingent liabilities based on ASC 450, "*Contingencies*," when it is determined that a liability, inclusive of defense costs, is probable and reasonably estimable. Litigation is subject to many factors that are difficult to predict, so there can be no assurance that, in the event of a material unfavorable result in one or more claims, we will not incur material costs.

Note 14. Stockholders' Equity

Authorized shares

We are authorized to issue two classes of stock, common stock and preferred stock. On June 9, 2015, the board of directors amended and restated our Amended and Restated Certificate of Incorporation, effective upon the closing of our initial public offering, or IPO, on July 1, 2015, and authorized us to issue up to 300,000,000 shares of common stock and 10,000,000 shares of undesignated preferred stock.

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Common and Preferred Stock

As of December 31, 2021 and 2020, there were 50,406,606 and 49,630,773 shares of common stock issued, and 50,259,453 and 49,483,620 shares of common stock outstanding, respectively. As of December 31, 2021 and 2020, there were no preferred shares issued and outstanding. Each outstanding share of common stock is entitled to one vote per share.

Stock Repurchase Programs

On November 29, 2018, our board of directors authorized a stock repurchase program, under which we were authorized to purchase up to an aggregate of \$75.0 million of our outstanding common stock during the two-year period that ended on November 29, 2020. On December 3, 2020, our board of directors authorized another stock repurchase program, under which we are authorized to purchase up to an aggregate of \$100.0 million of our outstanding common stock during the three-year period ending December 3, 2023. During the year ended December 31, 2020, we repurchased 147,153 shares of our common stock under the program that expired on November 29, 2020. No shares were purchased under these programs during the years ended December 31, 2021 and 2019.

Shares Withheld

As permitted under the terms of the 2015 Plan, in 2021 the Compensation Committee authorized the withholding of shares of common stock in connection with the vesting of restricted stock unit awards issued to employees to satisfy applicable tax withholding requirements. These withheld shares are not issued or considered common stock repurchases under our stock repurchase program. We paid \$4.5 million of tax withholdings related to vesting of restricted stock units during the year ended December 31, 2021. Prior to using the withholding method to satisfy applicable tax withholding requirements for employees, we utilized the sell-to-cover method in which shares of our restricted stock unit awards were sold into the market on behalf of the employee upon vesting to cover tax withholding liabilities. We may utilize either the withholding method or sell-to-cover method in the future.

Note 15. Stock-Based Compensation

Stock-based compensation expense was included in the following line items in the consolidated statements of operations (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Stock-based compensation expense data:			
Sales and marketing	\$ 4,432	\$ 3,025	\$ 2,075
General and administrative	9,941	7,996	6,474
Research and development	24,321	18,155	12,054
Total stock-based compensation expense	<u>\$ 38,694</u>	<u>\$ 29,176</u>	<u>\$ 20,603</u>

The following table summarizes the components of non-cash stock-based compensation expense (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Stock options and assumed options	\$ 3,707	\$ 3,406	\$ 3,783
Restricted stock units	34,799	25,605	16,627
Employee stock purchase plan	188	165	193
Total stock-based compensation expense	<u>\$ 38,694</u>	<u>\$ 29,176</u>	<u>\$ 20,603</u>
Tax windfall benefit from stock-based awards	<u>\$ 10,063</u>	<u>\$ 8,202</u>	<u>\$ 5,154</u>

2015 Equity Incentive Plan

We issue stock options pursuant to our 2015 Plan. The 2015 Plan allows for the grant of stock options to employees and for the grant of nonqualified stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, or RSUs, performance-based stock awards, and other forms of equity compensation to our employees, directors and non-employee directors and consultants.

In June 2015, our board of directors adopted and our stockholders approved our 2015 Plan pursuant to which we initially reserved a total of 4,700,000 shares of common stock for issuance under the 2015 Plan, which included shares of our common

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stock previously reserved for issuance under our Amended and Restated 2009 Stock Incentive Plan, or the 2009 Plan. The number of shares of common stock reserved for issuance under the 2015 Plan will automatically increase on January 1 each year, for a period of not more than ten years, commencing on January 1, 2016 through January 1, 2024, by 5.0% of the total number of shares of common stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares as may be determined by the board of directors. As a result of the adoption of the 2015 Plan, no further grants may be made under the 2009 Plan. As of December 31, 2021, 6,314,616 shares remained available for future grant under the 2015 Plan. In December 2021, our board of directors determined that the January 1, 2022 increase in the number of shares reserved for issuance under the 2015 Plan would be 5.0% of the total number of shares of common stock outstanding on December 31, 2021, or 2,512,972 shares. In December 2020, our board of directors determined that the January 1, 2021 increase in the number of shares reserved for issuance under the 2015 Plan would be 2.5% of the total number of shares of common stock outstanding on December 31, 2020, or 1,237,090 shares. There was no increase to the number of shares of common stock reserved for issuance under the 2015 Plan in the years ended December 31, 2020 and 2019.

Stock Options

Stock options under the 2015 Plan have been granted at exercise prices based on the closing price of our common stock on the date of grant. Stock options under the 2009 Plan were granted at exercise prices as determined by the board of directors to be the fair market value of our common stock. Our stock options generally vest over a five-year period and each option, if not exercised or forfeited, expires on the tenth anniversary of the grant date.

Certain stock options granted under the 2015 Plan and previously granted under the 2009 Plan may be exercised before the options have vested. Unvested shares issued as a result of early exercise are subject to repurchase by us upon termination of employment or services at the original exercise price. The proceeds from the early exercise of stock options are initially recorded as a current liability and are reclassified to common stock and additional paid-in capital as the awards vest and our repurchase right lapses. There were no unvested shares of common stock outstanding subject to our right of repurchase as of December 31, 2021 and 2020. We did not repurchase any unvested shares of common stock related to early exercised stock options in connection with employee terminations during the years ended December 31, 2021 and 2020. We repurchased 27 unvested shares of common stock related to early exercised stock options in connection with employee terminations during the year ended December 31, 2019. There were no proceeds from the early exercise of the unvested stock options reflected in accounts payable, accrued expenses and other current liabilities on our consolidated balance sheets as of December 31, 2021 and 2020.

We account for stock-based compensation options based on the fair value of the award as of the grant date. We recognize stock-based compensation expense using the accelerated attribution method, net of actual forfeitures, in which compensation cost for each vesting tranche in an award is recognized ratably from the service inception date to the vesting date for that tranche.

We value our stock options using the Black-Scholes option pricing model, which requires the input of subjective assumptions, including the risk-free interest rate, expected term, expected stock price volatility and dividend yield. The risk-free interest rate assumption is based upon observed interest rates for constant maturity U.S. Treasury securities consistent with the expected term of our stock options. The expected term represents the period of time the stock options are expected to be outstanding and is based on the "simplified method." Under the "simplified method," the expected term of an option is presumed to be the mid-point between the vesting date and the end of the contractual term. We use the "simplified method" due to the lack of sufficient historical exercise data to provide a reasonable basis upon which to otherwise estimate the expected term of the stock options. Beginning in November 2019, the expected volatility for options granted is based on historical volatilities of our stock over the estimated expected term of the stock options. The expected volatility for options granted prior to November 2019 was based on historical volatilities of our stock and publicly traded stock of comparable companies over the estimated expected term of the stock options.

There were 143,700, 143,650 and 186,500 stock options granted during the years ended December 31, 2021, 2020 and 2019, respectively. We declared and paid dividends in June 2015 in anticipation of our IPO, which we closed on July 1, 2015. Subsequent to the IPO, we do not expect to declare or pay dividends on a recurring basis. As such, we assume that the dividend rate is 0%.

The following table summarizes the assumptions used for estimating the fair value of stock options granted:

	Year Ended December 31,		
	2021	2020	2019
Volatility	41.8 - 42.6%	39.2 - 42.3%	39.6 - 42.2%
Expected term	6.2 - 6.7 years	6.2 - 6.7 years	6.3 - 7.5 years
Risk-free interest rate	1.0 - 1.2%	0.4 - 1.8%	1.4 - 2.5%
Dividend rate	— %	— %	— %

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The following table summarizes stock option activity:

	Number of Options	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2020	1,343,479	\$ 25.75	5.7	\$ 104,388
Granted	143,700	84.23		
Exercised	(306,304)	13.61		21,895
Forfeited	(8,981)	51.55		
Expired	(4,413)	11.81		
Outstanding as of December 31, 2021	<u>1,167,481</u>	<u>\$ 35.99</u>	<u>5.7</u>	<u>\$ 57,129</u>
Vested and expected to vest as of December 31, 2021	<u>1,167,481</u>	<u>\$ 35.99</u>	<u>5.7</u>	<u>\$ 57,129</u>
Exercisable as of December 31, 2021	<u>750,252</u>	<u>\$ 23.74</u>	<u>4.5</u>	<u>\$ 45,835</u>

The weighted average grant date fair value for our stock options granted during the years ended December 31, 2021, 2020 and 2019 was \$36.63, \$16.79 and \$25.01, respectively. The total fair value of stock options vested during the years ended December 31, 2021, 2020 and 2019 was \$3.4 million, \$3.6 million and \$3.4 million, respectively. The aggregate intrinsic value of stock options exercised during the years ended December 31, 2021, 2020 and 2019 was \$21.9 million, \$33.4 million and \$15.1 million, respectively. As of December 31, 2021, the total compensation cost related to nonvested awards not yet recognized was \$5.5 million, which will be recognized over a weighted average period of 2.6 years. Cash received from exercises of stock options was \$4.2 million, \$10.2 million and \$2.5 million during the years ended December 31, 2021, 2020 and 2019, respectively.

Stock Options Assumed from Acquisition

On March 8, 2017, we acquired certain assets and assumed certain liabilities of the Connect line of business and all of the outstanding equity interests of the two subsidiaries through which Icontrol Networks, Inc., or Icontrol, conducted its Piper line of business, or the Acquisition, and assumed the Icontrol 2013 Equity Incentive Plan and Icontrol 2003 Stock Plan, or collectively, the Icontrol Plans. The assumed unvested stock options are exercisable for 70,406 shares of Alarm.com common stock. On March 15, 2017, we filed a Form S-8 Registration Statement related to the Acquisition. The registration also covers an additional 2,308,615 shares of common stock that were automatically added to the shares authorized for issuance under the 2015 Plan pursuant to an evergreen provision contained in the 2015 Plan and an additional 461,723 shares of common stock that were automatically added to the shares authorized for issuance under the 2015 ESPP, pursuant to an evergreen provision contained in the 2015 ESPP.

In accordance with the terms of the asset purchase agreement, we were obligated to assume the Icontrol Plans, and converted the 2,001,387 unvested employee stock options into 70,406 Alarm.com stock options using a conversion ratio stated in the agreement to convert the original exercise price and number of options. The fair value of the unvested stock options on the date of the Acquisition was \$1.7 million calculated using a Black-Scholes model with a volatility and risk-free interest rate over the expected term of the options and the closing price of the Alarm.com common stock on the date of acquisition. We applied our graded vesting accounting policy to the fair value of these assumed options and determined \$1.4 million of the fair value was attributable to pre-combination services and was included as a component of total purchase consideration. The remaining \$0.3 million of the fair value was determined to be attributable to post-combination services and will be recognized over the remaining service periods of the stock options.

The following table summarizes the assumptions used for estimating the fair value of stock options assumed from the Connect business unit of Icontrol:

	<u>Year Ended December 31,</u> <u>2017</u>
Volatility	42.7 - 44.4%
Expected term	2.5 - 5.0 years
Risk-free interest rate	1.4 - 2.0%
Dividend rate	— %

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The following table summarizes the assumed stock option activity:

	Number of Options	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2020	7,633	\$ 6.09	4.6	\$ 743
Exercised	(745)	4.57		58
Expired	(361)	4.55		
Outstanding as of December 31, 2021	<u>6,527</u>	<u>\$ 6.35</u>	<u>3.7</u>	<u>\$ 512</u>
Vested and expected to vest as of December 31, 2021	<u>6,527</u>	<u>\$ 6.35</u>	<u>3.7</u>	<u>\$ 512</u>
Exercisable as of December 31, 2021	<u>6,527</u>	<u>\$ 6.35</u>	<u>3.7</u>	<u>\$ 512</u>

The weighted average grant date fair value for the assumed stock options granted during the year ended December 31, 2017 was \$4.78. There were no new grants under the assumed Incentive Plans in 2021, 2020 and 2019. The total fair value of assumed stock options vested during the years ended December 31, 2021, 2020 and 2019 was zero, less than \$0.1 million and \$0.1 million, respectively. The aggregate intrinsic value of assumed stock options exercised during the years ended December 31, 2021, 2020 and 2019 was \$0.1 million, \$0.4 million and \$0.3 million, respectively. As of December 31, 2021, there were no compensation costs related to the nonvested awards not yet recognized. Cash received from exercises of stock options was less than \$0.1 million during each of the years ended December 31, 2021, 2020 and 2019, respectively.

Restricted Stock Units

There was an aggregate of 837,576, 498,416 and 827,764 RSUs without performance conditions granted to certain of our employees and directors during the years ended December 31, 2021, 2020 and 2019, respectively. There was an aggregate of 120,314 and 66,000 RSUs with performance conditions granted to certain of our employees and directors during the years ended December 31, 2021 and 2020, respectively. There were no RSUs with performance conditions granted to certain of our employees and directors during the year ended December 31, 2019. The time-based RSUs vest over a five-year period from the vesting commencement date, which is generally the grant date. The performance-based RSUs vest when the related performance conditions are met. Vested RSUs presented below include the amount of shares withheld to satisfy tax withholding requirements to be paid by us on behalf of our employees when applicable. We account for RSUs based on the fair value of the award as of the grant date. We recognize stock-based compensation expense for time-based RSUs using the accelerated attribution method, net of actual forfeitures, in which compensation cost for each vesting tranche in an award is recognized ratably from the grant date to the vesting date for that tranche. The condition for vesting of the RSUs is based on continued employment. We recognize stock-based compensation expense for performance-based RSUs based on management's determination of the probable outcome of the performance conditions and we record a cumulative adjustment in periods in which there is a change in the estimated number of shares expected to vest. As of December 31, 2021, the total unrecognized compensation expense related to RSUs without performance conditions amounted to \$69.2 million, which is expected to be recognized over a weighted average period of 2.6 years. As of December 31, 2021, the total unrecognized compensation expense related to RSUs with performance conditions amounted to \$6.6 million, which is expected to be recognized over a weighted average period of 4.0 years.

The following table summarizes RSU activity:

	RSUs without Performance Conditions			RSUs with Performance Conditions		
	Number of RSUs	Weighted Average Grant Date Fair Value	Aggregate Intrinsic Value (in thousands)	Number of RSUs	Weighted Average Grant Date Fair Value	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2020	1,630,640	\$ 47.73	\$ 168,690	66,000	\$ 56.83	\$ 6,828
Granted	837,576	86.35		120,314	87.53	
Vested	(482,810)	43.36	41,948	(20,000)	56.83	1,728
Forfeited	(187,507)	68.63		(36,596)	87.53	
Outstanding as of December 31, 2021	<u>1,797,899</u>	<u>\$ 64.71</u>	<u>\$ 152,480</u>	<u>129,718</u>	<u>\$ 76.64</u>	<u>\$ 11,001</u>
Vested and expected to vest as of December 31, 2021	<u>1,797,899</u>	<u>\$ 64.71</u>	<u>\$ 152,480</u>	<u>114,063</u>	<u>\$ 75.15</u>	<u>\$ 9,674</u>

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The weighted average grant date fair value for our RSUs without performance conditions granted during the years ended December 31, 2021, 2020 and 2019 was \$86.35, \$50.61 and \$52.16, respectively. The weighted average grant date fair value for our RSUs with performance conditions granted during the years ended December 31, 2021, 2020 and 2019 was \$87.53, \$56.83 and \$0.00, respectively. The total fair value of RSUs without performance conditions vested during the years ended December 31, 2021, 2020 and 2019 was \$20.9 million, \$9.0 million and \$9.0 million, respectively. The total fair value of RSUs with performance conditions vested during the years ended December 31, 2021, 2020 and 2019 was \$1.1 million, zero and zero, respectively.

Employee Stock Purchase Plan

Our board of directors adopted our 2015 ESPP in June 2015. As of December 31, 2021, 1,954,623 shares have been reserved for future grant under the 2015 ESPP, with provisions established to increase the number of shares available on January 1 of each subsequent year for nine years. The annual automatic increase in the number of shares available for issuance under the 2015 ESPP is the lesser of 1% of each class of common stock outstanding as of December 31 of the preceding fiscal year, 1,500,000 shares of common stock, or such lesser number as determined by the board of directors. There was no increase to the number of shares of common stock reserved for issuance under the 2015 ESPP in any of 2019, 2020 or 2021 nor will the number of shares be increased in 2022. The 2015 ESPP allows eligible employees to purchase shares of our common stock at 90% of the fair market value, rounded up to the nearest cent, based on the closing price of our common stock on the purchase date. The maximum number of shares of our common stock that a participant may purchase during any calendar year shall not exceed such number of shares having a fair market value equal to the lesser of \$15,000 or 10% of the participant's base compensation for that year.

The 2015 ESPP is considered compensatory for purposes of share-based compensation expense due to the 10% discount on the fair market value of the common stock. An aggregate of 19,628, 29,933 and 26,811 shares were purchased by employees for the years ended December 31, 2021, 2020 and 2019, respectively, for which we recognized \$0.2 million of compensation expense during each of those years. Compensation expense is recognized for the amount of the discount, net of actual forfeitures and voluntary withdrawals, over the six-month purchase period.

Note 16. Earnings Per Share

Basic and Diluted Earnings Per Share

The components of basic and diluted earnings per share are as follows (in thousands, except share and per share amounts):

	Year Ended December 31,		
	2021	2020	2019
Net income	\$ 51,175	\$ 76,660	\$ 53,330
Net loss attributable to redeemable noncontrolling interest	1,084	1,193	201
Net income attributable to common stockholders (A)	<u>\$ 52,259</u>	<u>\$ 77,853</u>	<u>\$ 53,531</u>
Weighted average common shares outstanding — basic (B)	49,869,857	48,950,328	48,427,446
Dilutive effect of stock options and restricted stock units	2,050,045	2,012,862	1,846,443
Weighted average common shares outstanding — diluted (C)	<u>51,919,902</u>	<u>50,963,190</u>	<u>50,273,889</u>
Net income per share:			
Basic (A/B)	\$ 1.05	\$ 1.59	\$ 1.11
Diluted (A/C)	\$ 1.01	\$ 1.53	\$ 1.06

The following securities have been excluded from the calculation of diluted weighted average common shares outstanding as the inclusion of these securities would have an anti-dilutive effect:

	Year Ended December 31,		
	2021	2020	2019
Stock options	142,660	158,515	223,259
Restricted stock units	11,630	62,194	136,600
Common stock subject to repurchase	—	—	250

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Our redeemable noncontrolling interest relates to our 85% equity ownership interest in OpenEye. The OpenEye stockholder agreement contains a put option that gives the minority OpenEye stockholders the right to sell their OpenEye shares to us based on the fair value of the shares. The OpenEye stockholder agreement also contains a call option that gives us the right to purchase the remaining OpenEye shares from the minority OpenEye stockholders based on the fair value of the shares. The put and call options can each be exercised beginning in the first quarter of 2023. This redeemable noncontrolling interest is considered temporary equity and we report it between liabilities and stockholders' equity in the consolidated balance sheets. The amount of the net income or loss attributable to redeemable noncontrolling interests is recorded in the consolidated statements of operations.

Since we expect to settle the principal amount on our outstanding 2026 Notes in cash and any excess in cash or shares of our common stock, we use the treasury stock method for calculating any potential dilutive effect of the conversion spread on diluted net income per share, if applicable. The conversion spread has a dilutive impact on diluted net income per share of common stock when the average market price of our common stock for a given period exceeds the conversion price of \$147.19 per share for the 2026 Notes. Based on the initial conversion price and the average market price of our common stock for the year ended December 31, 2021, there was no dilutive effect of the 2026 Notes on our earnings per share during the year ended December 31, 2021.

Note 17. Significant Service Providers

During the years ended December 31, 2021, 2020 and 2019, our 10 largest revenue service provider partners accounted for 47%, 48% and 52% of our consolidated revenue. One of our service provider partners within the Alarm.com segment individually represented greater than 15% but not more than 20% of our revenue for the years ended December 31, 2021, 2020 and 2019.

One and two service provider partners in the Alarm.com segment represented more than 10% of accounts receivable as of December 31, 2021 and 2020, respectively.

Note 18. Income Taxes

The components of our income tax expense are as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Current			
Federal	\$ 2,678	\$ 3,583	\$ 1,615
State	1,437	2,735	900
Foreign	894	438	452
Total Current	<u>5,009</u>	<u>6,756</u>	<u>2,967</u>
Deferred			
Federal	(9,295)	(3,628)	2,622
State	(820)	372	(23)
Foreign	—	—	—
Total Deferred	<u>(10,115)</u>	<u>(3,256)</u>	<u>2,599</u>
Total	<u>\$ (5,106)</u>	<u>\$ 3,500</u>	<u>\$ 5,566</u>

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The difference between the income tax expense at the federal statutory rate and income tax expense in the consolidated statements of operations is as follows:

	Year Ended December 31,		
	2021	2020	2019
Federal statutory rate	21.0 %	21.0 %	21.0 %
State income tax expense, net of federal benefits	(1.0)	1.4	0.6
Nondeductible meals and entertainment	0.5	0.1	0.8
Foreign-derived intangible income deduction	(1.7)	(1.4)	(0.7)
Valuation allowance	1.1	1.3	—
Research and development tax credits	(17.7)	(9.4)	(7.1)
Tax windfall benefits	(18.8)	(8.8)	(7.5)
Change in tax rate	—	(0.2)	0.4
Foreign withholding tax	1.9	0.5	0.8
Nondeductible compensation	1.9	—	—
Other	1.7	(0.1)	1.2
Effective rate	(11.1)%	4.4 %	9.5 %

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The components of our net deferred tax assets (liabilities) are as follows (in thousands):

	December 31,	
	2021	2020
Deferred tax assets, non-current		
Provision for credit losses on accounts receivable	\$ 847	\$ 1,524
Depreciation	281	261
Accrued expenses	4,749	4,633
Deferred revenue	2,061	1,725
Operating lease liabilities	10,619	11,511
Stock-based compensation	15,461	12,768
Acquisition costs	2,627	2,773
Subsidiary unit compensation	804	249
Equity investments	—	31
Inventory reserve	439	240
Debt issuance costs	402	—
Net operating losses	1,262	1,198
Tax credits	9,405	5,502
Other	577	288
Total deferred tax assets, non-current prior to valuation allowance	49,534	42,703
Valuation allowance	(2,209)	(1,568)
Total deferred tax assets, non-current, net of valuation allowance	47,325	41,135
Deferred tax liabilities, non-current		
Intangible assets and prepaid patent licenses	(2,905)	(4,421)
Operating lease right-of-use assets	(7,534)	(8,043)
Depreciation	(6,446)	(5,322)
Sales commissions	(896)	(866)
Contingent liability	—	(171)
Internally developed software	(147)	(620)
Equity investments	(92)	—
Convertible debt discount	(15,758)	—
Total deferred tax liabilities, non-current	(33,778)	(19,443)
Net deferred tax assets, non-current	<u>\$ 13,547</u>	<u>\$ 21,692</u>

A reconciliation of the beginning and ending amounts of unrecognized tax benefits (without related interest expense) is as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Beginning balance	\$ 4,228	\$ 3,065	\$ 2,801
Additions based on tax positions of the current year	1,526	1,166	718
Additions based on tax positions of prior year	15	656	18
Decreases based on tax positions of prior year	(10)	(259)	(253)
Decreases due to lapse of applicable statute of limitations	(218)	(400)	(219)
Ending balance	<u>\$ 5,541</u>	<u>\$ 4,228</u>	<u>\$ 3,065</u>

Our effective income tax rates were (11.1)%, 4.4% and 9.5% for the years ended December 31, 2021, 2020 and 2019, respectively. Our effective tax rates were below the statutory rate primarily due to tax windfall benefits from employee stock-

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based payment transactions, research and development tax credits claimed and foreign derived intangible income deductions, partially offset by the impact of foreign withholding taxes, nondeductible compensation and other nondeductible expenses.

We recognize a valuation allowance if, based on the weight of available evidence, both positive and negative, it is more likely than not that some portion, or all, of net deferred tax assets will not be realized. Due to the uncertainty of realization of certain deferred tax assets acquired in 2017 related to our Canadian net operating losses and research and development tax credits, we established a valuation allowance of \$0.3 million during the second quarter of 2019, which remained at \$0.3 million as of December 31, 2021 and 2020. During 2020, we established a valuation allowance of \$1.3 million for state research and development tax credit carryforwards, which remained at \$1.3 million as of December 31, 2020. This valuation allowance increased to \$1.9 million as of December 31, 2021.

We apply guidance for uncertainty in income taxes that requires the application of a more likely than not threshold to the recognition and de-recognition of uncertain tax positions. If the recognition threshold is met, this guidance permits us to recognize a tax benefit measured at the largest amount of the tax benefit that, in our judgment, is more likely than not to be realized upon settlement. We recorded an increase to the unrecognized tax benefits of \$1.4 million, \$1.1 million and \$0.6 million primarily for research and development tax credits claimed during the years ended December 31, 2021, 2020 and 2019, respectively.

As of December 31, 2021 and 2020, we accrued \$0.2 million and \$0.1 million of total interest related to unrecognized tax benefits, respectively. We recognize interest and penalties related to unrecognized tax benefits as a component of income tax expense.

We are not aware of any events that make it reasonably possible that there would be a significant change in our unrecognized tax benefits over the next twelve months. Our cumulative liability for uncertain tax positions was \$5.4 million and \$4.2 million as of December 31, 2021 and 2020, respectively, and if recognized, would reduce our income tax expense and the effective tax rate.

We file income tax returns in the United States and Canada. Our tax returns are subject to on-going review and examination by various tax authorities. Tax authorities may not agree with the treatment of items reported in our tax returns, and therefore the outcome of tax reviews and examinations can be unpredictable. We are no longer subject to U.S. income tax examinations for years prior to 2018, with the exception that operating loss carryforwards generated prior to 2018 may be subject to tax audit adjustment. We are generally no longer subject to state and local income tax examinations by tax authorities for years prior to 2018. On October 13, 2021, the Internal Revenue Service commenced an examination of our federal income tax return for 2018, which is ongoing. The anticipated completion date of the Internal Revenue Service examination cannot be estimated at this time.

As of December 31, 2021, we had gross federal net operating loss carryforwards of \$4.2 million, which are scheduled to begin to expire in 2030. As of December 31, 2021, we had state net operating loss carryforwards of \$1.9 million, which are scheduled to begin to expire in 2034. As of December 31, 2021, we had federal research and development tax credit carryforwards of \$5.9 million, on a more likely than not basis, which are scheduled to begin to expire in 2041. As of December 31, 2021, we had state research and development tax credit carryforwards of \$3.8 million, on a more likely than not basis, which are scheduled to begin to expire in 2024. The federal net operating loss carryforward arose in connection with the 2013 acquisition of EnergyHub. Utilization of net operating loss carryforwards may be subject to annual limitations due to ownership change limitations as provided by the Internal Revenue Code of 1986, as amended.

Note 19. Segment Information

We have two reportable segments:

- Alarm.com segment
- Other segment

Our chief operating decision maker is our chief executive officer. Management determined the operational data used by the chief operating decision maker is that of the two reportable segments. Management bases strategic goals and decisions on these segments and the data presented below is used to measure financial results.

Our Alarm.com segment represents our cloud-based and Software platforms for the intelligently connected property and related solutions that contributed 95%, 94% and 93% of our revenue, net of intersegment eliminations, for the years ended December 31, 2021, 2020 and 2019, respectively. Our Other segment is focused on researching, developing and offering residential and commercial automation solutions and energy management products and services in adjacent markets. Inter-segment revenue includes sales of hardware between our segments.

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Management evaluates the performance of its segments and allocates resources to them based on operating income / (loss) as compared to prior periods and current performance levels. The reportable segment operational data is presented in the tables below (in thousands):

Year Ended December 31, 2021					
	Alarm.com	Other	Intersegment Alarm.com	Intersegment Other	Total
SaaS and license revenue	\$ 426,823	\$ 33,549	\$ —	\$ —	\$ 460,372
Hardware and other revenue	284,721	9,275	(3,089)	(2,310)	288,597
Total revenue	711,544	42,824	(3,089)	(2,310)	748,969
Operating income / (loss)	70,646	(9,590)	766	(250)	61,572
Assets	1,264,416	37,198	(69,595)	(4)	1,232,015

Year Ended December 31, 2020					
	Alarm.com	Other	Intersegment Alarm.com	Intersegment Other	Total
SaaS and license revenue	\$ 366,815	\$ 26,442	\$ —	\$ —	\$ 393,257
Hardware and other revenue	219,826	14,254	(3,093)	(6,241)	224,746
Total revenue	586,641	40,696	(3,093)	(6,241)	618,003
Operating income / (loss)	59,194	(2,908)	393	(381)	56,298
Assets	763,925	26,739	(58,983)	6	731,687

Year Ended December 31, 2019					
	Alarm.com	Other	Intersegment Alarm.com	Intersegment Other	Total
SaaS and license revenue	\$ 317,580	\$ 19,795	\$ —	\$ —	\$ 337,375
Hardware and other revenue	156,265	20,919	(4,301)	(7,895)	164,988
Total revenue	473,845	40,714	(4,301)	(7,895)	502,363
Operating income / (loss)	52,046	(1,639)	134	(128)	50,413

Our SaaS and license revenue for the Alarm.com segment included software license revenue of \$32.3 million, \$38.0 million and \$43.4 million for the years ended December 31, 2021, 2020 and 2019, respectively. There was no software license revenue recorded for the Other segment during the years ended December 31, 2021, 2020 and 2019.

Depreciation and amortization expense was \$29.3 million, \$27.2 million and \$22.1 million for the Alarm.com segment for the years ended December 31, 2021, 2020 and 2019, respectively. Depreciation and amortization expense was \$0.4 million, \$0.3 million and less than \$0.1 million for the Other segment for the years ended December 31, 2021, 2020 and 2019, respectively. Additions to property and equipment were \$9.7 million, \$16.4 million and \$15.6 million for the Alarm.com segment for the years ended December 31, 2021, 2020 and 2019, respectively. Additions to property and equipment were \$0.5 million, \$1.1 million and \$0.7 million for the Other segment for the years ended December 31, 2021, 2020 and 2019, respectively.

We derived substantially all revenue from North America for the years ended December 31, 2021, 2020 and 2019. Substantially all our long-lived assets were in North America as of December 31, 2021 and 2020.

Note 20. Related Party Transactions

Installation Partner

Our installation partner in which we have a 48.2% ownership interest performs installation services for security service providers and also provides installation services for us and certain of our subsidiaries. We account for this investment using the equity method. As of December 31, 2021 and 2020, our investment balance in our installation partner was zero. During the years ended December 31, 2021, 2020 and 2019, we recorded \$0.3 million, \$0.4 million and \$0.4 million of cost of hardware and other revenue in connection with this installation partner. As of December 31, 2021 and 2020, the accounts payable balance to our installation partner was less than \$0.1 million.

ALARM.COM HOLDINGS, INC.
Notes to the Consolidated Financial Statements — (Continued)
December 31, 2021, 2020 and 2019

Affiliate Lease

OpenEye leased its production and administration operations facility from a company that is controlled by certain employees of OpenEye, or the Landlord. The one-year lease term expired on October 20, 2020 and was subsequently converted to a month-to-month lease until it was terminated on March 31, 2021. Total minimum lease payments over the term of the lease were \$0.2 million. During the years ended December 31, 2021, 2020 and 2019, we recorded \$0.1 million, \$0.3 million and less than \$0.1 million of rent expense in connection with this lease arrangement. There was no accounts payable balance due to the Landlord under this lease arrangement as of December 31, 2021 and 2020.

Note 21. Quarterly Financial Data (unaudited)

The following table shows selected unaudited quarterly consolidated statement of operations data for each of our eight most recently completed quarters. In the opinion of management, the information for each of these quarters has been prepared on the same basis as our audited financial statements and include all adjustments, consisting of normal recurring adjustments and accruals, necessary for the fair statement of financial information in accordance with GAAP. However, the COVID-19 pandemic disrupted and may continue to disrupt our supply chain for an unknown period of time due to its impact on manufacturing, production and global transportation. The COVID-19 pandemic also disrupted and may intermittently continue to disrupt our sales channels due to restrictions imposed from time to time on our service providers' ability to meet with residential and commercial property owners who use our solutions. In addition, the COVID-19 pandemic resulted in a global slowdown of economic activity and a recession in the United States and the economic situation remains fluid as parts of the economy appear to be recovering while others continue to struggle. While vaccines have been approved for use in the United States and in many other countries, and vaccination efforts are well underway, it remains difficult to assess or predict the ultimate duration and economic impact of the COVID-19 pandemic due to a resurgence of COVID-19 and the emergence and severity of COVID-19 variants. Historical results are not necessarily indicative of the results that may be achieved in future periods, and operating results for quarterly periods are not necessarily indicative of operating results for a full year, which is increasingly true in periods of extreme uncertainty, such as the uncertainty caused by the COVID-19 pandemic.

Information about current period and prior period acquisitions that may affect the comparability of the selected financial information presented below is included in Note 7. Information about the \$24.7 million gain on the sale of an investment recorded in other (expense) / income, net, during the three months ended September 30, 2020, which relates to the sale of an investment in one of our platform partners and may affect the comparability of the quarterly financial data presented below, is included in Note 9. Information about the 2026 Notes issued in January 2021 and the related interest expense, which may affect the comparability of the quarterly financial data presented below, is included in Note 13. The selected consolidated statements of operation data in amounts are presented below (in thousands, except per share data):

	Three Months Ended							
	Mar. 31, 2020	June 30, 2020	Sept. 30, 2020	Dec. 31, 2020	Mar. 31, 2021	June 30, 2021	Sept. 30, 2021	Dec. 31, 2021
Total revenue	\$ 151,939	\$ 141,637	\$ 158,851	\$ 165,576	\$ 172,498	\$ 188,857	\$ 192,324	\$ 195,290
Total cost of revenue	57,980	49,005	61,183	59,260	65,762	77,367	80,384	82,386
Net income	8,571	16,625	35,825	15,639	14,550	14,490	13,294	8,841
Net income attributable to common stockholders	8,807	16,995	36,084	15,967	14,830	14,745	13,538	9,146
Net income per share attributable to common stockholders								
Basic	\$ 0.18	\$ 0.35	\$ 0.74	\$ 0.32	\$ 0.30	\$ 0.30	\$ 0.27	\$ 0.18
Diluted	\$ 0.18	\$ 0.34	\$ 0.71	\$ 0.31	\$ 0.29	\$ 0.28	\$ 0.26	\$ 0.18

Schedule II – Valuation and Qualifying Accounts and Reserves

Alarm.com Holdings, Inc.
Schedule II
Valuation and Qualifying Accounts and Reserves
(In thousands)

Description	Balance at Beginning of Year	Additions Charged Against Revenue	Additions Charged to Other Accounts	Deductions	Balance at End of Year
Year Ended December 31, 2021					
Allowance for credit losses on accounts receivable	\$ 4,696	\$ —	\$ (775)	\$ (1,753)	\$ 2,168
Allowance for product returns	1,480	2,494	—	(2,793)	1,181
Allowance for credit losses on notes receivable	89	—	(9)	—	80
Deferred tax valuation allowance	1,568	—	641	—	2,209
Year Ended December 31, 2020					
Allowance for credit losses on accounts receivable	\$ 2,584	\$ —	\$ 2,530 ⁽¹⁾	\$ (418)	\$ 4,696
Allowance for product returns	1,075	1,795	—	(1,390)	1,480
Allowance for credit losses on notes receivable	16	—	90 ⁽¹⁾	(17)	89
Deferred tax valuation allowance	322	—	1,246	—	1,568
Year Ended December 31, 2019					
Allowance for credit losses on accounts receivable	\$ 1,425	\$ —	\$ 1,170	\$ (11)	\$ 2,584
Allowance for product returns	1,915	(123)	105	(822)	1,075
Allowance for credit losses on notes receivable	3,319	—	(3,272)	(31)	16
Deferred tax valuation allowance	—	—	322	—	322

(1) Includes the 2020 impact of the adoption of Topic 326 of \$0.4 million for the allowance for credit losses on accounts receivable and \$0.4 million for the allowance for credit losses on note receivable (see Note 4 and Note 9).

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to the company's management, including its chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2021. Based on the evaluation of our disclosure controls and procedures as of December 31, 2021, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2021 based on the framework in *Internal Control-Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the results of its evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2021.

Our independent registered public accounting firm, PricewaterhouseCoopers LLP, has audited our financial statements included in this Annual Report on Form 10-K and the effectiveness of our internal control over financial reporting as of December 31, 2021. The report of PricewaterhouseCoopers LLP is incorporated by reference into Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during our most recent fiscal quarter ended December 31, 2021 that have materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

ITEM 9B. OTHER INFORMATION

On February 22, 2022, the Board of Directors approved and adopted our Amended and Restated Bylaws (the “Bylaws”), effective immediately, to

- change the vote required to elect directors from a plurality of votes cast to a majority of shares present in person, by remote communication or represented by proxy and entitled to vote on the subject matter cast, provided that the plurality voting standard will continue to apply in a contested election; and
- add an exclusive forum provision as a new Article XV, to provide that unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any claims arising under the Securities Act of 1933, as amended.

The foregoing summary and description of the provisions of the Bylaws does not purport to be complete and is qualified in its entirety by reference to the full text of the Bylaws, a copy of which is filed as Exhibit 3.2 with this Annual Report on Form 10-K and is incorporated herein by reference.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III.

We will file a definitive Proxy Statement for our Annual Meeting, or our 2022 Proxy Statement, with the SEC, pursuant to Regulation 14A, not later than 120 days after the end of our fiscal year. Accordingly, certain information required by Part III has been omitted under General Instruction G(3) to Form 10-K. Only those sections of the 2022 Proxy Statement that specifically address the items set forth herein are incorporated by reference.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Item 10 is hereby incorporated by reference to the sections of our 2022 Proxy Statement under the captions "Information Regarding Committees of the Board of Directors," "Election of Directors" and "Executive Officers."

We have adopted a written Code of Business Conduct and Ethics, or the Code of Conduct, applicable to all of our employees, executive officers and directors, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. A current copy of the Code of Conduct is available on the Investors section of our website, www.alarm.com, under "Corporate Governance." We intend to disclose on our website any amendments to, or waivers from, our Code of Conduct that are required to be disclosed pursuant to SEC rules.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is hereby incorporated by reference to the sections of our 2022 Proxy Statement under the captions "Executive Compensation," "Director Compensation" and "Information Regarding Committees of the Board of Directors."

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by Item 12 is hereby incorporated by reference to the sections of our 2022 Proxy Statement under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information."

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by Item 13 is hereby incorporated by reference to the sections of our 2022 Proxy Statement under the captions "Transactions with Related Persons" and "Independence of the Board of Directors."

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by Item 14 is hereby incorporated by reference to the section of our 2022 Proxy Statement under the caption "Principal Accountant Fees and Services" and "Pre-Approval Policies and Procedures."

PART IV.

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Annual Report:

- (1) Consolidated Financial Statements and Reports of Independent Registered Public Accounting Firm
- (2) Consolidated Financial Statement Schedule
- (3) Exhibits are incorporated herein by reference or are filed with this Annual Report as indicated below

(b) Exhibits

Exhibit	Description	Incorporated by Reference			
		Schedule / Form	File Number	Exhibit	File Date
2.1	Asset Purchase Agreement by and among ICN Acquisition, LLC, Icontrol Networks, Inc., the Seller Stockholders, Fortis Advisors LLC, and the Registrant as Guarantor, dated as of June 23, 2016	8-K	001-37461	2.1	June 23, 2016
2.2	Amendment No. 1 to Asset Purchase Agreement by and among ICN Acquisition, LLC, Icontrol Networks, Inc., the Seller Stockholders, Fortis Advisors LLC, and the Registrant as Guarantor, dated November 15, 2016	8-K	001-37461	2.1	November 16, 2016
3.1	Amended and Restated Certificate of Incorporation of the Registrant	8-K	001-37461	3.1	June 10, 2021
3.2*	Amended and Restated Bylaws of the Registrant				
4.1	Indenture, dated as of January 20, 2021, by and between Alarm.com Holdings, Inc. and U.S. Bank National Association, as Trustee	8-K	001-37461	4.1	January 20, 2021
4.2	Form of Global Note, representing Alarm.com Holdings, Inc.'s 0% Convertible Senior Notes due 2026 (included as Exhibit A to the Indenture filed as Exhibit 4.1)	8-K	001-37461	4.2	January 20, 2021
4.3	Form of Common Stock Certificate of the Registrant	S-1	333-204428	4.1	May 22, 2015
4.4	Amended and Restated Registration Rights Agreement by and among the Registrant and certain of its stockholders, dated July 11, 2012	S-1	333-204428	4.2	May 22, 2015
4.5*	Description of Securities Registered Pursuant To Section 12 of the Securities Exchange Act of 1934, As Amended				
10.1	Deed of Office Lease Agreement between Registrant and Marshall Property LLC, dated August 8, 2014	S-1	333-204428	10.2	May 22, 2015
10.2	First Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and Marshall Property LLC, dated May 29, 2015	10-Q	001-37461	10.1	August 15, 2016
10.3	Second Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and Marshall Property LLC, dated October 19, 2015	10-Q	001-37461	10.2	August 15, 2016
10.4	Third Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and Marshall Property LLC, dated May 6, 2016	10-Q	001-37461	10.3	August 15, 2016
10.5	Fourth Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and Marshall Property LLC, dated September 15, 2016	10-Q	001-37461	10.3	November 14, 2016
10.6	Fifth Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and Marshall Property LLC, dated January 31, 2017	10-K	001-37461	10.7	March 16, 2017
10.7	Sixth Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and TMG TMC 3, L.L.C., dated October 10, 2018	10-K	001-37461	10.8	March 1, 2019
10.8	Seventh Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and TMG TMC 3, L.L.C., dated May 16, 2019	10-Q	001-37461	10.1	August 9, 2019
10.9	Eighth Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and TMG TMC 3, L.L.C., dated July 17, 2019	10-Q	001-37461	10.2	August 9, 2019
10.10	Ninth Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and TMG TMC 3, L.L.C., dated March 12, 2020	10-Q	001-37461	10.1	May 7, 2020

Exhibit	Description	Incorporated by Reference			
		Schedule / Form	File Number	Exhibit	File Date
10.11	Tenth Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and TMG TMC 3, L.L.C., dated December 17, 2020	10-K	001-37461	10.11	February 25, 2021
10.12*	Eleventh Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and TMG TMC 3, L.L.C., dated December 21, 2021				
10.13*	Twelfth Amendment to Deed of Office Lease Agreement by and between Alarm.com Incorporated and TMG TMC 3, L.L.C., dated January 12, 2022				
10.14†	Amended and Restated 2009 Stock Incentive Plan, Form of Non-Qualified Stock Option Agreement and Form of Early Exercise Notice and Restricted Stock Purchase Agreement thereunder	S-1	333-204428	10.3	May 22, 2015
10.15†	2015 Equity Incentive Plan	10-Q	001-37461	10.1	August 14, 2015
10.16†	Form of Option Grant Package under 2015 Equity Incentive Plan	10-K	001-37461	10.10	February 28, 2018
10.17†	Form of RSU Notice and Agreement under 2015 Equity Incentive Plan	10-K	001-37461	10.12	March 1, 2019
10.18†	Form of Early Exercise Restricted Stock Purchase Agreement	10-K	001-37461	10.7	February 29, 2016
10.19†	2015 Employee Stock Purchase Plan	10-Q	001-37461	10.2	August 14, 2015
10.20†	Alarm.com Holdings, Inc. Executive Bonus Plan	10-Q	001-37461	10.1	May 9, 2019
10.21†	Form of Indemnity Agreement by and between Registrant and each of its directors and executive officers	S-1/A	333-204428	10.9	June 11, 2015
10.22†	Offer Letter by and between the Registrant and Steve Valenzuela dated October 12, 2016	8-K	001-37461	10.1	November 14, 2016
10.23^	Reformed Master Services Agreement by and between Alarm.com Incorporated and ADT LLC, effective as of August 19, 2016	10-Q	001-37461	10.2	November 14, 2016
10.24	Class Action Settlement Agreement by and between Alarm.com Holdings, Inc., Alarm.com Incorporated, Abante Rooter and Plumbing, Inc., Mark Hankins and Philip J. Charvat, individually and on behalf of all others similarly situated	10-K	001-37461	10.27	March 1, 2019
10.25^	First Amendment to Reformed Master Services Agreement by and between Alarm.com Incorporated and ADT LLC, effective as of December 9, 2019	10-K	001-37461	10.23	February 26, 2020
10.26	Indemnity Agreement by and between Alarm.com Holdings, Inc. and Simone Wu	10-K	001-37461	10.24	February 26, 2020
10.27^	Second Amendment to Reformed Master Services Agreement by and between Alarm.com Incorporated and ADT LLC, effective as of November 4, 2020	10-K	001-37461	10.27	February 25, 2021
10.28^	Third Amendment to Reformed Master Services Agreement by and between Alarm.com Incorporated and ADT LLC, effective as of July 1, 2021	10-Q	001-37461	10.1	November 4, 2021
21.1*	Subsidiaries of the Registrant				
23.1*	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm				
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
32.1**	Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				
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				

Exhibit	Description	Incorporated by Reference			
		Schedule / Form	File Number	Exhibit	File Date
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 - the cover page interactive data is embedded within the Inline XBRL document or included within the Exhibit 101 attachments				

* Filed herewith.

** Furnished herewith.

† Indicates management contract or compensatory plan.

^ Portions of this document (indicated by "[***]") have been omitted because they are not material and are the type that Alarm.com Holdings, Inc. treats as private and confidential.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

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.

Alarm.com Holdings, Inc.

Date: February 24, 2022

By: /s/ Stephen Trundle
 Stephen Trundle
 President and Chief Executive Officer
(Principal Executive Officer)

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

Signature	Title	Date
<u>/s/ Stephen Trundle</u> Stephen Trundle	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	February 24, 2022
<u>/s/ Steve Valenzuela</u> Steve Valenzuela	Chief Financial Officer <i>(Principal Financial Officer and Principal Accounting Officer)</i>	February 24, 2022
<u>/s/ Timothy McAdam</u> Timothy McAdam	Chairman of the Board of Directors	February 24, 2022
<u>/s/ Donald Clarke</u> Donald Clarke	Director	February 24, 2022
<u>/s/ Rear Admiral Stephen Evans</u> Rear Admiral (Ret.) Stephen Evans	Director	February 24, 2022
<u>/s/ Darius G. Nevin</u> Darius G. Nevin	Director	February 24, 2022
<u>/s/ Timothy J. Whall</u> Timothy J. Whall	Director	February 24, 2022
<u>/s/ Simone Wu</u> Simone Wu	Director	February 24, 2022



BOARD OF DIRECTORS

Stephen Trundle

President and Chief Executive Officer
Alarm.com

Timothy McAdam

General Partner
Technology Crossover Ventures

Donald Clarke

Director
BigCommerce Holdings, Inc. and BrainEvolved, Inc.

Stephen Evans

Rear Admiral (Ret), USN
Owner
Flag Bridge Global Solutions, LLC

Darius G. Nevin

Member
G3 Capital Partners, LLC

Timothy Whall

Director
Consumer Cellular, Inc. and Curbio, Inc.

Simone Wu

Senior Vice President, General Counsel,
Corporate Secretary & External Affairs,
Choice Hotels International, Inc.

EXECUTIVE OFFICERS

Stephen Trundle

President and Chief Executive Officer

Steve Valenzuela

Chief Financial Officer

Jeffrey Bedell

Chief Strategy and Innovation Officer

Daniel Kerzner

Chief Product Officer

Daniel Ramos

Senior Vice President and Corporate Secretary

CORPORATE INFORMATION

Corporate Headquarters

Alarm.com Holdings, Inc.
8281 Greensboro Drive, Suite 100
Tysons, VA 22102
Phone: 877.389.4033

Stock Listing

Alarm.com Holdings Inc. stock is publicly traded on The Nasdaq Global Select Market under the ticker symbol: **ALRM**

Investor Relations

Our investor relations website is located at investors.alarm.com
Contact ir@alarm.com

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP
655 New York Avenue NW
Washington, DC 20001







Transfer Agent

American Stock Transfer & Trust Company, LLC
6201 15th Avenue
Brooklyn, NY 11219
Phone: 1.800.937.5449
www.astfinancial.com

Annual Meeting of Stockholders

June 2, 2022 at 9:00 a.m. ET

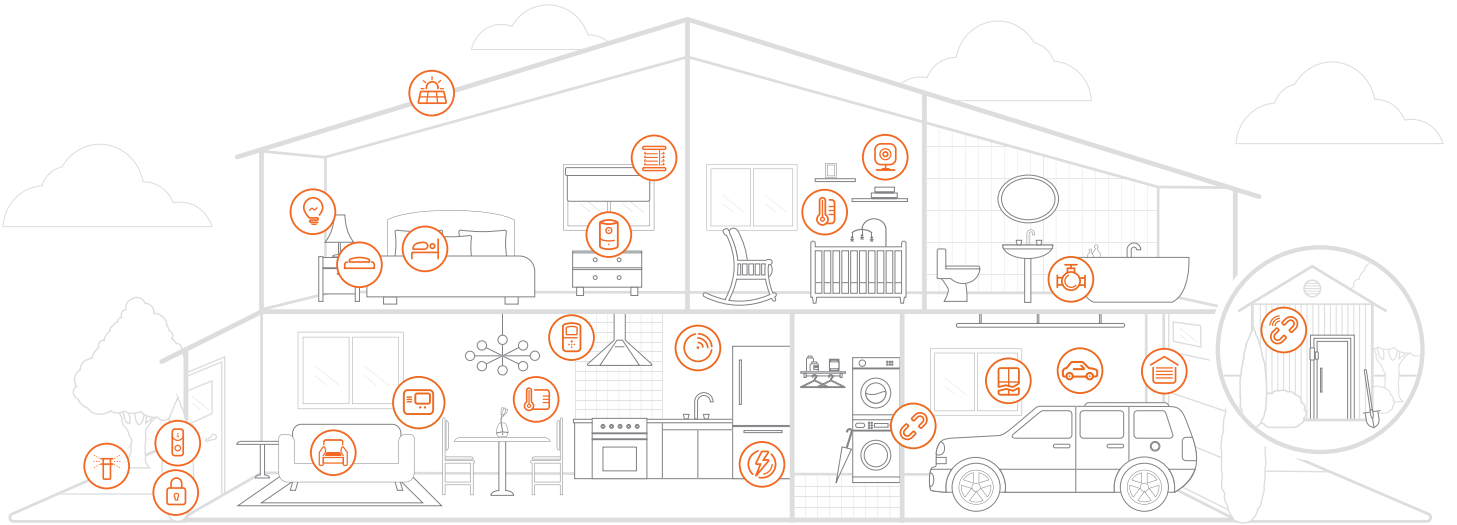
COMMITTEE COMPOSITION

	Audit	Nominating & Corporate Governance	Compensation
 Timothy McAdam		★	
Donald Clarke	★		
Stephen Evans			
Darius G. Nevin			★
Timothy Whall			
Simone Wu			


Chairman
of the Board

★
Chair


Member



Interactive Security • Video • Energy Management • Intelligent Automation • Wellness

SERVICE PROVIDER SOLUTIONS

Alarm.com Academy • Business Intelligence Tools • Customer Connections • Home Builder Program
Marketing Portal • MobileTech Application • Remote Toolkit • Partner Portal • Web Services

