



# SECURING THE DIGITAL WORLD

# THROUGH INTELLIGENT IDENTITY



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

**FORM 10-K**

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

**For the fiscal year ended December 31, 2019**

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: 001-39056**



**PING IDENTITY HOLDING CORP.**

(Exact Name of Registrant as Specified in Its Charter)

**Delaware**

(State or Other Jurisdiction of Incorporation or Organization)

**81-2933383**

(I.R.S. Employer Identification Number)

**1001 17th Street, Suite 100**  
**Denver, Colorado 80202**

(Address of Principal executive offices, including zip code)

**(303) 468-2900**

(Registrant's telephone number, including area code)

**Securities Registered Pursuant to Section 12(b) of the Act:**

**Title of each class:**  
Common Stock, \$0.001 par value per share

**Trading Symbol(s):**  
PING

**Name of each exchange on which registered:**  
New York Stock Exchange

**Securities Registered Pursuant to Section 12(g) of the Act:**

None.

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer

☐

Accelerated filer

☐

Non-accelerated filer

☒

Smaller reporting company

☐

Emerging growth company

☒

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

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

The registrant was not a public company as of the last business day of its most recently completed second fiscal quarter and therefore, cannot calculate the aggregate market value of its common stock held by non-affiliates as of such date.

On March 2, 2020, the Registrant had 79,731,031 shares of common stock, \$0.001 par value, outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the information called for by Part III of this Annual Report on Form 10-K is hereby incorporated by reference from the definitive proxy statement for the Registrant's annual meeting of stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after the Registrant's fiscal year ended December 31, 2019.

**PING IDENTITY HOLDING CORP.**  
**FORM 10-K**  
**For the Fiscal Year Ended December 31, 2019**  
**TABLE OF CONTENTS**

	<u>Page</u>
<b>Forward-Looking Statements</b> .....	3
<b>PART I.</b>	
<b>Item 1.</b> Business .....	6
<b>Item 1A.</b> Risk Factors .....	16
<b>Item 1B.</b> Unresolved Staff Comments .....	52
<b>Item 2.</b> Properties .....	52
<b>Item 3.</b> Legal Proceedings .....	52
<b>Item 4.</b> Mine Safety Disclosures .....	52
<b>PART II.</b>	
<b>Item 5.</b> Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities .....	53
<b>Item 6.</b> Selected Consolidated Financial Data .....	56
<b>Item 7.</b> Management's Discussion and Analysis of Financial Condition and Results of Operations .....	58
<b>Item 7A.</b> Quantitative and Qualitative Disclosures About Market Risk .....	84
<b>Item 8.</b> Financial Statements and Supplementary Data .....	85
<b>Item 9.</b> Changes in and Disagreements with Accountants on Accounting and Financial Disclosure .....	124
<b>Item 9A.</b> Controls and Procedures .....	124
<b>Item 9B.</b> Other Information .....	125
<b>PART III.</b>	
<b>Item 10.</b> Directors, Executive Officers and Corporate Governance .....	126
<b>Item 11.</b> Executive Compensation .....	126
<b>Item 12.</b> Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters .....	126
<b>Item 13.</b> Certain Relationships and Related Transactions, and Director Independence .....	126
<b>Item 14.</b> Principal Accounting Fees and Services .....	126
<b>PART IV.</b>	
<b>Item 15.</b> Exhibits and Financial Statements Schedules .....	127
<b>Item 16.</b> Form 10-K Summary .....	131
<b>Signatures</b> .....	132

## Forward-Looking Statements

In addition to historical consolidated financial information, this Annual Report on Form 10-K contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties. All statements other than statements of historical fact included in this Annual Report on Form 10-K are forward-looking statements. These statements may include words such as “anticipate,” “estimate,” “expect,” “project,” “plan,” “intend,” “believe,” “may,” “will,” “should,” “can have,” “likely” and other words and terms of similar meaning in connection with any discussion of the timing or nature of future operating or financial performance or other events. For example, all statements we make relating to our estimated and projected costs, expenditures, cash flows, growth rates and financial results or our plans and objectives for future operations, growth initiatives, or strategies are forward-looking statements. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected. Specific factors that could cause such a difference include, but are not limited to, those set forth under Item 1A. “Risk Factors” and other important factors disclosed previously in our other filings with the SEC which include, but are not limited to:

- our ability to adapt to rapid technological change, evolving industry standards and changing customer needs, requirements or preferences;
- our ability to enhance and deploy our cloud-based offerings while continuing to effectively offer our on-premise offerings;
- our ability to maintain or improve our competitive position;
- the impact on our business of a network or data security incident or unauthorized access to our network or data or our customers’ data;
- the effects on our business if we are unable to acquire new customers, if our customers do not renew their arrangements with us, or if we are unable to expand sales to our existing customers or develop new solutions or solution packages that achieve market acceptance;
- our ability to manage our growth effectively, execute our business plan, maintain high levels of service and customer satisfaction or adequately address competitive challenges;
- our dependence on our senior management team and other key employees;
- our ability to enhance and expand our sales and marketing capabilities;
- our ability to attract and retain highly qualified personnel to execute our growth plan;
- the risks associated with interruptions or performance problems of our technology, infrastructure and service providers;
- our dependence on Amazon Web Services cloud infrastructure services;
- the impact of data privacy concerns, evolving regulations of cloud computing, cross-border data transfer restrictions and other domestic and foreign laws and regulations;
- the impact of volatility in quarterly operating results;
- the risks associated with our revenue recognition policy and other factors may distort our financial results in any given period;
- the effects on our customer base and business if we are unable to enhance our brand cost-effectively;
- our ability to comply with anti-corruption, anti-bribery and similar laws;
- our ability to comply with governmental export and import controls and economic sanctions laws;
- our ability to comply with HIPAA;
- the potential adverse impact of legal proceedings;
- the impact of our frequently long and unpredictable sales cycle;

- our ability to identify suitable acquisition targets or otherwise successfully implement our growth strategy;
- the impact of a change in our pricing model;
- our ability to meet service level commitments under our customer contracts;
- the impact on our business and reputation if we are unable to provide high-quality customer support;
- our dependence on strategic relationships with third parties;
- the impact of adverse general and industry-specific economic and market conditions and reductions in IT and identity spending;
- the ability of our platform, solutions and solution packages to interoperate with our customers' existing or future IT infrastructures;
- our dependence on adequate research and development resources and our ability to successfully complete acquisitions;
- our dependence on the integrity and scalability of our systems and infrastructures;
- our reliance on software and services from other parties;
- the impact of real or perceived errors, failures, vulnerabilities or bugs in our solutions;
- our ability to protect our proprietary rights;
- the impact on our business if we are subject to infringement claim or a claim that results in a significant damage award;
- the risks associated with our use of open source software in our solutions, solution packages and subscriptions;
- our reliance on SaaS vendors to operate certain functions of our business;
- the risks associated with indemnity provisions in our agreements;
- the risks associated with liability claims if we breach our contracts;
- the impact of the failure by our customers to pay us in accordance with the terms of their agreements;
- our ability to expand the sales of our solutions and solution packages to customers located outside of the United States;
- the risks associated with exposure to foreign currency fluctuations;
- the impact of Brexit;
- the impact of potentially adverse tax consequences associated with our international operations;
- the impact of changes in tax laws or regulations;
- the impact of the Tax Act;
- our ability to maintain our corporate culture;
- our ability to develop and maintain proper and effective internal control over financial reporting;
- our management team's limited experience managing a public company;
- the risks associated with having operations and employees located in Israel;
- the risks associated with doing business with governmental entities;
- the impact of catastrophic events on our business;
- the impact of the emerging Coronavirus outbreak; and

- other factors disclosed in the section entitled “Risk Factors” and elsewhere in this Annual Report.

Given these factors, as well as other variables that may affect our operating results, you should not rely on forward-looking statements, assume that past financial performance will be a reliable indicator of future performance, or use historical trends to anticipate results or trends in future periods. The forward-looking statements included in this Annual Report on Form 10-K relate only to events as of the date hereof. We undertake no obligation to update or revise any forward-looking statement as a result of new information, future events or otherwise, except as otherwise required by law.



## **PART I.**

### **Item 1. Business**

#### **Our Mission**

Our mission is to secure the digital world through Intelligent Identity.

#### **Overview**

Ping Identity is pioneering Intelligent Identity. We enable secure access to any service, application or application program interface (“API”) from any device. Our Intelligent Identity Platform can leverage artificial intelligence (“AI”) and machine learning (“ML”) to analyze device, network, application and user behavior data to make real-time authentication and security control decisions, enhancing the user experience. Our platform is designed to detect anomalies and automatically insert additional security measures, such as multi-factor authentication, only when necessary. We built our platform to meet the requirements of the most demanding enterprises. Our platform can be deployed across cloud, hybrid and on-premise infrastructures, offers a comprehensive suite of turnkey integrations and is able to scale to millions of identities and thousands of cloud and on-premise applications in a single deployment.

Enterprises are undergoing digital transformation as they seek to create new revenue streams, transition business models and increase customer engagement. Concurrently, enterprises are becoming more distributed as the adoption of cloud, mobile and the Internet of Things (“IoT”) moves data, applications and access requirements beyond the traditional network perimeter. These enterprises must contend with an evolving cyber-threat landscape, new privacy directives and stringent regulatory requirements. As a result, enterprises require Intelligent Identity solutions that proactively ensure the right user has authorized access to resources at the appropriate time.

Our Intelligent Identity Platform can secure all primary use cases, including customer, workforce, partner and IoT. For example, enterprises can use our platform to enhance their customers’ user experience by creating a single ID and login across web and mobile properties. For the year ended December 31, 2019, 42% of our subscription revenue was derived from the customer use case. Enterprises can also use our platform to provide their workforce and commercial partners with secure, seamless access from any device to the applications, data and APIs they need to be productive. Enterprises are increasingly using our platform to manage and authenticate IoT devices, such as connected vehicles and consumer devices.

Our Intelligent Identity Platform is comprised of six solutions that can be purchased individually or as a set of integrated offerings for the customer, workforce, partner or IoT use case:

- secure single sign-on (“SSO”);
- adaptive multi-factor authentication (“MFA”);
- security control for applications and APIs (“Access Security”);
- personalized and unified profile directories (“Directory”);
- data governance to control access to identity data (“Data Governance”); and
- AI and ML powered API security (“API Intelligence”).

We have spent over a decade building a comprehensive suite of turnkey integrations designed to ensure that enterprises can use our platform to secure their applications wall-to-wall, facilitating easier deployment and rapid time-to-value.

We sell our solutions via a subscription model through a direct sales force, with increasing influence from our channel partners. We also utilize channel partners and system integrators to assist our customers in the implementation process. Our SSO, Access Security and Directory solutions typically replace legacy and homegrown systems. We also have significant greenfield opportunities with our MFA, Data Governance and API Intelligence solutions and, increasingly, the IoT use case.

Our land and expand strategy targets enterprises with a specific use case and solution or solution package, and then seeks to grow our footprint with additional use cases, identities, solutions and solution packages. The success of our strategy is validated by our strong dollar-based net retention rates, which were 116% and 115% at December 31, 2018 and 2019, respectively, and our growing number of large customers. At December 31, 2019, we had 38 customers with greater than \$1,000,000 in ARR, an increase of 52% from 25 customers at December 31, 2018. Additionally, our customers with ARR over \$250,000 increased from 202 at December 31, 2018 to 232 at December 31, 2019, representing a year-over-year growth rate of 15%. The increase of 30 net customers with ARR greater than \$250,000 for the 2019 fiscal year is comprised of 13 new customers and 17 existing customers that had ARR grow to exceed \$250,000 in 2019. Our total customers increased from 1,284 at December 31, 2018 to 1,361 at December 31, 2019. We have seen strong market demand for our cloud-based offerings and from enterprises deploying our solutions across the customer use case. A number of our customers deploy a combination of our solutions across multiple business units, functions and use cases in their initial purchase. For definitions of ARR and dollar-based net retention rate and descriptions of how we calculate these metrics, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Our customers include many of the world’s largest enterprises, including over 50% of the Fortune 100. These customers are security-focused, and typically operate in regulated industries, have hybrid IT infrastructures, require turnkey integrations and have demanding scalability requirements. Our solutions secure 12 of the 12 largest U.S. banks (measured by assets), 8 of the 10 largest bio-pharmaceutical companies (measured by revenue), 7 of the 10 largest healthcare plans (measured by revenue) and 5 of the 7 largest U.S. retailers (measured by revenue). Our customer base is diversified, with no one customer or reseller accounting for more than 5% of our total revenue for the year ended December 31, 2019.

Since our inception, we have been an innovator in identity. We pioneered the concept of Intelligent Identity, which leverages AI and ML to analyze device, network, application and user behavior data to secure access and enhance the user experience. We founded Ping Identity with the vision of enabling enterprise security in a highly-connected world, replacing legacy security controls such as web gateways, virtual private networks (“VPNs”) and firewalls. We contributed to or co-authored many of the open identity standards such as SAML, OAuth, SCIM and OpenID Connect, which form the foundation of our industry. We have consistently been recognized as a leader in the Identity and Access Management (“IAM”) industry by Gartner and KuppingerCole.

### **Our Growth Strategy**

The key elements of our growth strategy include:

- *Increase Sales to Existing Customers.* We believe there are significant upsell and cross-sell opportunities within our existing customer base by adding identities and use cases and selling new solutions and solution packages. We have a strong track record of growing sales to our existing customers, as evidenced by our dollar-based net retention rates, which were 115% and 116% at December 31, 2019 and 2018, respectively.
- *Innovate and Enhance our Offerings.* We intend to continue investing in research and development to enhance our existing solutions, add new solution packages and deployment options and expand use cases, such as IoT. We believe these emerging devices present a significant opportunity for us as the number of IoT identities and human-to-machine and machine-to-machine connections continue to increase. Additionally, we may from time to time assess acquisition opportunities to supplement our organic development of new solutions or capabilities.



- *Expand our Customer Base by Investing in Sales and our Partner Network.* We continue to make investments in sales and marketing to grow our customer base and drive broader awareness of our Intelligent Identity Platform. We plan to deepen and expand our joint go-to-market efforts with our channel partners, system integrators and technology partners.
- *Expand our Customer Base by Targeting New Buyers.* We focus our selling efforts on executives such as Chief Information Officers (“CIOs”) and Chief Information Security Officers (“CISOs”) who are often making strategic top-down decisions to purchase our platform. We recently extended our cloud-based offering to target developers who represent a new addressable customer base for us. The ability for developers to directly integrate identity into their applications accelerates the adoption of identity within the enterprise.
- *Continue to Expand our Global Presence.* We have a large and growing international presence and intend to grow our customer base in various international regions by making investments in our sales team globally. For the year ended December 31, 2019, our international revenue was 22% of our total revenue. We expect international sales to be a meaningful revenue contributor in future periods.

### **Our Intelligent Identity Platform**

We enable secure access to any service, application or API from any device. Our Intelligent Identity Platform can leverage AI and ML to analyze device, network and user behavior data to make real-time authentication and security control decisions, enhancing the user experience. Our platform is designed to detect anomalies and automatically insert additional security measures, such as MFA, only when necessary. Our Intelligent Identity Platform provides the following key benefits:

- intelligent authentication of users based on contextual signals and risk attributes;
- one platform for all primary use cases;
- flexible hybrid deployment options;
- turnkey integrations across cloud and on-premise applications;
- high standards for critical security and resiliency; and
- scalable to billions of identities.

### ***Our Intelligent Identity Platform Supports All Primary Use Cases***

- *Customer.* Our platform helps enterprises better engage with their customers by providing a consistent, modern, omni-channel user experience through personalized access to all digital services. This enhanced digital experience improves brand loyalty and drives additional revenue, while also strengthening security.
- *Workforce.* Our platform allows enterprises to provide their workforce with seamless and secure access to all of their cloud and on-premise applications and APIs to enable better employee productivity.
- *Partner.* Our platform helps enterprises rapidly connect with partners and manage their access privileges when onboarding and offboarding users.
- *IoT.* Our platform is increasingly being used to manage IoT identities, such as connected vehicles and consumer devices, and authenticate machine-to-machine and human-to-machine interactions.

## ***Deployment Flexibility***

We have designed our solutions and solution packages for flexible deployment because every enterprise has different customization, control, security and privacy needs. Our deployment options include:

- *Cloud.* Cloud-first enterprises can consume our Intelligent Identity Platform as software-as-a-service (“SaaS”) or deploy our Intelligent Identity Platform in their cloud.
- *Hybrid.* For hybrid enterprises, our Intelligent Identity Platform can be consumed both in the cloud and on-premise.
- *On-Premise.* For enterprises seeking the highest degree of control over security and privacy, our Intelligent Identity Platform can be deployed in the customer’s data center.

## **Our Solutions and Solution Packages**

Our Intelligent Identity Platform is comprised of six solutions (SSO, MFA, Access Security, Directory, Data Governance and API Intelligence) that can be purchased individually or as a set of integrated offerings for the customer, workforce, partner or IoT use case. Our modular design allows customers to easily integrate with existing applications and infrastructures and does not require an all-or-nothing rip and replace. All of our solutions use open standards for maximum interoperability and extensibility.

We also provide solution packages that include combinations of our most commonly deployed solutions along with Ping Identity professional services. These solution packages enhance our land strategy by accelerating the deployment of large initial purchases in the customer and workforce use cases. We have designed our solution packages based on market demand and the most popular combination of Ping Identity solution deployments. For example, our Customer360 and Workforce360 solution packages include SSO, MFA, Directory and Ping Identity Professional Services and represent a combination of solutions commonly found in our customer base.

*Single Sign-On.* Our SSO solution allows users to sign on using one set of secure credentials, giving them one-click access to their applications and resources regardless of location. Our SSO solution provides turnkey integrations for a wide range of applications, cloud services, IT infrastructures and directory solutions, including third party directories, as well as our Directory solution. Within our SSO solution, our adaptive authentication policies enable organizations to predictively authenticate users in real-time based on device, network, application and user behavior data. Our advanced SSO features include:

- utilization of open-standards such as SAML, OAuth, OIDC, WS-\*, SCIM, FIDO2;
- support for identity, OpenID Connect Token, and service providers;
- advanced protocol translation to maximize interoperability with partners;
- flexible authentication mechanisms (Adapters, Policy Tree and SDK);
- advanced user identity attribute aggregation (LDAP, JDBC and SDK);
- inbound and outbound SaaS user provisioning; and
- advanced enterprise SIEM and audit logging.

*Multi-Factor Authentication.* Our adaptive MFA solution helps optimize the balance between security and user experience by enforcing additional authentication factors as necessary when accessing sensitive resources, conducting high-value transactions and engaging in other elevated risk scenarios. Adaptive MFA allows users to conduct low-value transactions from trusted devices without interruption, while prompting MFA during high-

value transactions, activity from untrusted devices and networks or in response to anomalous behavior. Our MFA solution works across use cases with personal or corporate-owned mobile devices and integrates with enterprise mobility management and mobile device management solutions. Our advanced MFA features include:

- multiple authentication factors: one-time passwords that are sent via SMS, email or voice call; secure key; smartwatch; mobile applications for iOS/Android (including biometrics or swipe); and desktop applications;
- advanced adaptive authentication policies;
- off-line use cases;
- FIDO2 compatible devices;
- mobile SDK to embed MFA functionality directly within an enterprise's mobile application; and
- support for SSH applications, Windows login/RDP or any RADIUS-compliant VPN server or remote access system.

*Access Security.* Our Access Security solution allows enterprises to apply a greater depth of security control over their web applications and APIs in any domain for users on any device. We offer a comprehensive policy engine down to the URL level that is designed to ensure only an authorized user can access resources. Our solution evaluates access decisions in real-time based on network, browser and authentication attributes, while continuously validating the risk profile of the user or device. Our advanced Access Security features include:

- security for web and API-based resources, either in gateway or agent mode;
- integrations with any OpenID Connect identity provider;
- Attribute-Based Access Control or Role-Based Access Control;
- advanced HTTP header or JSON Web Token identity mappings;
- open-standards web session management;
- flexible step-up authentication rules;
- site authenticators, load-balancing and failover;
- access rules (i.e., network range, time range), processing rules (i.e., URL rewriting) or custom rules (Groovy or Java SDK); and
- enterprise SIEM and audit logging.

*Directory.* Our Directory solution securely stores and manages sensitive identity and device data at scale. It includes real-time, bidirectional synchronization capabilities to migrate or sync data from multiple sources into a secure, scalable and unified profile. This single source of data is designed to provide a consistent experience across digital business interactions, no matter where the applications and services are deployed. Our advanced Directory features include:

- scalability to millions of identities;
- millisecond response times;

- advanced data modeling and access features for structured and unstructured data;
- real-time data synchronization for easy migration from legacy LDAP directories;
- developer-friendly REST APIs;
- encryption for maximum security of all data “at rest” (database files, database indexes, log files, backups and exports) and “in transit” (network connections from clients and peer servers);
- encryption keys that can be stored independent of encrypted data using enterprise password vaults and hardware security modules;
- flexible plugin architecture; and
- advanced multi-region and multi-master replication for low latency data access.

**Data Governance.** Our Data Governance solution provides centralized, fine-grained control over access to sensitive identity and device data across use cases. This enables organizations to restrict internal and external applications from accessing specific identity attributes such as social security numbers, credit card numbers, billing addresses or the entire user profile. Data access policies can evaluate attributes and preferences of the profile being requested, data from other repositories and information about the application and user making the request. Our Data Governance solution enables enterprises to comply with a broad range of regulatory requirements, such as the General Data Protection Regime (the “GDPR”), by restricting data that a user has not consented to share and denying access to personal information that applications and users do not need to perform their tasks. Our advanced Data Governance features include:

- centralized policy controls via XACML and JEXL to govern data access;
- customer management of opt-in/opt-outs and preferences;
- support for LDAP v3 and various other data sources for user and data backend stores; and
- support for other OpenID Connect providers as identity providers.

**API Intelligence.** Our API Intelligence solution can apply AI and ML to continuously inspect, report and act on all API activity. Our solution is purpose-built to recognize and respond to attacks that are designed to exploit the unique vulnerabilities of individual APIs. These attacks often go undetected by traditional security tools, such as application firewalls and API gateways. Our advanced API Intelligence features include:

- API traffic monitoring, visibility and security using AI and ML;
- automated API discovery;
- API deception and honeypot;
- API threat detection and blocking; and
- deployment in-line or to the side of API gateways.

## **Our Technology**

Our technology has been developed to the highest standards for security, performance, scale and interoperability. Our platform is built on the following core tenets:

- *Open Standards.* We pioneered open identity standards that reduce the cost and complexity of interoperability and integration between IT vendors and partners. We also participated in the creation of many of the Internet Engineering Task Force standards in the identity space and continue to support the evolution and creation of new standards.
- *Turnkey Integrations.* We provide a broad range of out-of-the-box adapters for “first-mile” and “last-mile” integration to cloud and on-premise applications and other systems. For example, we integrate with major enterprise identity systems, such as CA Technologies (now Broadcom), IBM, Oracle and Microsoft, as well as environments and application platforms such as Apache, Java, IIS, NGINX and WebSphere. In addition, we provide an extensive set of SaaS and social identity connectors that provide full integration with API functions. For example, our ServiceNow integration leverages over 20 user attributes. We also have out-of-the-box integrations with a variety of cloud-based and on-premise data sources, adaptive authentication providers and security and intelligence service providers.
- *Artificial Intelligence and Machine Learning.* Our API Intelligence solution utilizes our proprietary AI/ML capabilities to continuously inspect, report and act on all API activity. We are in the process of leveraging and expanding these AI/ML capabilities across our broader platform to deliver Intelligent Identity security based on device, network, application and user behavior data instead of manual rules and policies. Currently, our core identity and access management solutions can be deployed with AI and ML capabilities that we license from a third party. However, we do not actively market or sell the AI and ML capabilities of these solutions. Our platform’s ultimate goal is to deliver password-less, zero-login capabilities to secure access and enhance user experience. See “Risk Factors — Risks Related to our Business — We rely on software and services from other parties. Defects in or the loss of access to software or services from third parties could increase our costs and adversely affect the quality of our solutions.”
- *Uptime and Availability.* We provide critical uptime and offer advanced redundancy features such as off-line modes to ensure services are available even when internet connectivity is lost. Our multi-tenant cloud-based offering is hosted in multiple regions around the world for redundancy and continuity. Our maintenance windows do not require any downtime, and our platform has delivered over 99.9% uptime across our customer base over the past 12 months.
- *Scalability and Performance.* Our platform can scale to millions of identities and thousands of cloud and on-premise applications in a single deployment.
- *Self-service.* Self-service is becoming increasingly important as IT and IAM teams with limited resources seek to provide centralized IAM to the entire enterprise. The ability for developers to directly integrate identity into their applications accelerates the adoption of identity within the enterprise.
- *Security by Design.* We integrate security into all of our solutions. Our security analysts maintain the security of our solutions by monitoring core services, both corporate and customer-facing, for indications of attack or compromise. We partner with trusted third party security firms to perform full-scope assessments and additional architectural reviews of our solutions. We also engage with third-party audit firms to perform SOC2 Type II audits, and ISO 27001-2013 certification of our security program.

## **Sales and Marketing**

### **Sales**

We sell our solutions primarily through direct sales. We have a stratified direct sales organization that is organized by customer size and the type of solution and deployment. Within our sales organization, our strategic account executives focus on the largest and most complex enterprises that typically purchase multiple products or deployment options. In addition, we have account executives that target less complex enterprise customers that typically purchase a single solution or deployment option initially.

Our direct sales are enhanced by collaboration with our channel partners in sourcing new leads, aiding in pre-sale processes such as proof of concepts, demos or requests for proposals and reselling our solutions to customers, as well as collaboration with our system integrators and technology partners. We also leverage a number of our channel partners and system integrators to provide the implementation services for some of our larger and more complex deployments, significantly increasing the time-to-value for our customers and maximizing the efficiency of our go-to-market efforts. For the year ended December 31, 2019, 55% of our new business was influenced by channel partners.

## ***Marketing***

We focus our marketing strategy on building brand recognition through thought leadership and differentiated messaging that communicates the business value of our platform. Our efforts include content marketing, social media, SEO, events and public and analyst relations. We convert this brand awareness into our pipeline through campaigns that integrate digital, social, web and field marketing tactics aimed at adding new customers and cross-marketing our solutions into our existing customer base. We host user conferences in select cities around the globe to tap into the power of our passionate customer base and our broader ecosystem. We also founded and host the leading identity industry conference called Identiverse. Identiverse is held annually and attendees include architects, IAM professionals, IT administrators, developers, security professionals and CISOs, as well as technology vendors, system integrators, industry analysts and thought leaders.

## **Our Customers**

At December 31, 2019, we had 1,361 customers. We define a customer as a separate legal entity with an individual subscription agreement and include in our customer count entities which we have sold directly and entities that have purchased one or more solutions from a reseller. Our customer base is comprised of over 50% of the Fortune 100. As of December 31, 2019, our customer base included 12 of the 12 largest U.S. banks (measured by assets), 8 of the 10 largest bio-pharmaceutical companies (measured by revenue), 7 of the 10 largest healthcare plans (measured by revenue) and 5 of the 7 largest U.S. retailers (measured by revenue). Our customer base is diversified, with no one customer or reseller accounting for more than 5% of our total revenue for the year ended December 31, 2019. We have a highly satisfied customer base, as evidenced by our Net Promoter Score of 61 in 2019.

## **Partnerships and Strategic Relationships**

The PingPartner Network is comprised of key partnerships across our solution provider and technology alliance programs. This global network delivers expertise, value-added services and technology that are critical to the success of our customers.

### ***Solution Provider Program***

We have built strong relationships with channel partners, system integrators and technology partners that have allowed us to generate new business opportunities and enhance existing practices such as strategic planning, program management, architecture, design, implementation, ongoing change management and support.

### ***Technology Alliance***

We have built a broad ecosystem of over 100 technology partners. Our Technology Alliance Partner ecosystem spans the landscape of IAM and related technologies, giving our customers access to comprehensive, cross-application, integrated solutions. Our technology partners expand and extend the value of their solutions, and our solutions, by integrating their technology with our Intelligent Identity Platform. Additionally, our partners provide us with complementary technology and sales and marketing collateral that help us to more effectively sell together.

We partner with Microsoft, and this partnership has led to key product integrations. Through our collaboration, customers can leverage our platform to connect to the Microsoft Azure or Office365 services and enjoy rapid

deployments via our integrations. We also enable non-Microsoft applications and environments to be easily integrated into the Microsoft ecosystem. Lastly, our MFA solution works directly with Microsoft ADFS and AzureAD to provide enterprise-grade adaptive authentication to Microsoft's cloud-based offerings.

We also partner with AWS to provide provisioning and deployment of our solutions to our customers through this collaboration. We offer AWS single sign-on integration for a leading enterprise cloud experience. We also offer a hybrid deployment that can scale across AWS for enterprise applications.

## **Professional Services and Customer Support**

### ***Professional Services***

Our professional services organization helps customers architect, deploy, configure, extend and integrate our platform into their IT environments. We offer a variety of packaged and configured offerings and expert guidance that leverage our best practices and experience, all of which are available for our robust partner community to use or resell. We complement our professional services with formal instructor-led and web-based on-demand training courses.

### ***Customer Support***

We offer three tiers of support, each building on the previous tier to most closely align with a customer's requirements. Support is included for our cloud and on-premise offerings during the term of a customer's subscription. All support tiers offer maintenance releases, patches and access to our support services and portal. Our support portal offers customers documentation, how-to guides, videos and a community where our customers can ask questions and find answers. Our customer support organization includes experienced, trained personnel and engineering resources located around the world to provide 24x7x365 support for critical issues.

## **Research and Development**

Innovation is at the core of what we do. Approximately one-third of our employees are devoted to research and development. Our research and development efforts are focused on building industry leading solutions, addressing all primary use cases, enhancing deployment flexibility and providing seamless integration across cloud and on-premise applications. We believe that the ongoing and timely development of new solutions and features is imperative to maintaining our competitive position. We continue to invest in our solutions across our development centers in: Denver, Colorado; Austin, Texas; Tel Aviv, Israel; Vancouver, Canada; and Bangalore, India.

## **Intellectual Property**

Our success depends in part on our ability to protect our intellectual property. We rely on copyrights and trade secret laws, confidentiality procedures, employment agreements and proprietary information and invention assignment agreements, trademarks and patents to protect our intellectual property rights.

We control access to, and use of, our solutions and other confidential information through the use of internal and external controls, including contractual protections with employees, contractors, customers and partners, and our software is protected by U.S. and international copyright and trade secret laws. Despite our efforts to protect our trade secrets and proprietary rights through intellectual property rights, licenses and confidentiality agreements, unauthorized parties may still copy or otherwise obtain and use our software and technology, and such risks may increase as we attempt to expand into jurisdictions where such rights are less easily enforced, or are more subject to reverse engineering or misappropriation due to local legal requirements.

As of December 31, 2019, we had 16 issued United States patents and 8 patent applications pending in the United States relating to certain aspects of our technology. Our issued United States patents expire between December 14, 2031 and July 31, 2036. We cannot assure you whether any of our patent applications will result in the issuance of a patent or whether the examination process will require us to narrow our claims. Any of our



existing patents and any that are issued in the future may be contested, circumvented, found unenforceable or invalidated, and we may not be able to prevent third parties from infringing them. In addition, we have international operations and intend to continue to expand these operations, and effective patent, copyright, trademark and trade secret protection may not be available or may be limited in foreign countries.

## **Competition**

We face competition from (1) legacy providers, (2) cloud-only providers and (3) homegrown solutions.

Legacy providers include Broadcom, IBM and Oracle, among others. These providers generally designed their solutions when enterprise applications were monolithic and on-premise. Their solutions utilize proprietary architectures, which require customized features and integrations to scale. Today, these solutions have the reputation of being complex, costly and increasingly fragile. Thus, legacy providers often struggle to offer a single comprehensive solution that spans all IT environments, including cloud and on-premise.

We also compete with cloud-only providers, such as Okta and OneLogin, that primarily focus on the workforce use case. These providers have solutions that are generally geared towards small and medium-sized businesses that have IT infrastructures hosted entirely in the cloud. Large enterprises typically do not have cloud-only infrastructures, and while many are moving components of their IT environments to the cloud, we believe the majority of applications and workloads will continue to reside on-premise. Thus, a cloud-only IAM solution cannot deliver a single comprehensive solution to enterprises that provides wall-to-wall coverage across their complex hybrid IT environments.

Microsoft also competes in our market and has tied its identity services to both Azure and its Office365 offerings. However, we partner with Microsoft to provide SSO, security control and adaptive MFA where non-Microsoft environments require integration or independence is preferred. Microsoft's integration and interoperability with our solutions benefits enterprises while providing optionality and choice.

We believe the principal competitive factors in the IAM market include: (1) the ability to address all primary use cases from one platform; (2) the ability to deploy in large, complex hybrid IT environments; (3) the ability to integrate easily with all applications (cloud and on-premise); (4) technology uptime, reliability, scalability and performance; (5) the ability to support open standards; and (6) customer, technology and platform support. We believe we compete favorably on these factors.

## **Employees**

As of December 31, 2019, we had a total of 953 full time employees, of which approximately one-third were in research and development. We have a strong corporate culture, high employee engagement and are consistently ranked by third parties as one of the best places to work.

## **Corporate Information**

Our principal executive offices are located at 1001 17th Street, Suite 100, Denver, Colorado 80202. Our telephone number is (303) 468-2900. Our website address is [www.pingidentity.com](http://www.pingidentity.com). The information contained on, or that can be accessed through, our website is not incorporated by reference into this annual report, and you should not consider any information contained on, or that can be accessed through, our website as part of this Annual Report on Form 10-K. We are a holding company and all of our business operations are conducted through our subsidiaries. We were incorporated in 2016 as Roaring Fork Holding, Inc. and changed our name to Ping Identity Holding Corp. in connection with our initial public offering ("IPO").

This Annual Report on Form 10-K includes our trademarks and service marks such as "Ping Identity" and "Identiverse," which are protected under applicable intellectual property laws and are the property of us or our subsidiaries. This report also contains trademarks, service marks, trade names and copyrights of other companies, such as "Amazon," "Google" and "Microsoft," which are the property of their respective owners. Solely for convenience, trademarks and trade names referred to in this report may appear without the ® or ™

symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names.

### **Available Information**

We make available, free of charge through our website, our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to those reports, filed or furnished pursuant to Sections 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after they have been electronically filed with, or furnished to, the SEC.

The SEC also maintains a website ([www.sec.gov](http://www.sec.gov)) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

### **Item 1A. Risk Factors**

*A description of the risks and uncertainties associated with our business is set forth below. You should carefully consider the risks described below, together with the financial and other information contained in this Annual Report on Form 10-K. If any of the following risks actually occurs, our business, financial condition, results of operations, cash flows and prospects could be materially and adversely affected. As a result, the trading price of our common stock could decline and you could lose all or part of your investment in our common stock.*

#### **Risks Relating to Our Business**

***If we fail to adapt to rapid technological change, evolving industry standards and changing customer needs, requirements or preferences, our ability to remain competitive could be impaired.***

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

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

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

***If we are unable to enhance and deploy our cloud-based offerings while continuing to effectively offer our on-premise offerings, our business and operating results could be adversely affected.***

Historically, our revenue has been driven predominately by our on-premise offerings. For the year ended December 31, 2019, \$161.4 million, or 66%, of our total revenue was from subscription term-based licenses, whereas \$63.9 million, or 26%, of our total revenue was from subscription SaaS and support and maintenance. For the year ended December 31, 2018, \$133.7 million, or 66%, of our total revenue was from subscription term-based licenses whereas \$51.3 million, or 25%, of our total revenue was from subscription SaaS and support and maintenance. For the year ended December 31, 2017, \$122.1 million, or 71%, of our total revenue was from subscription term-based licenses whereas \$38.1 million, or 22%, of our total revenue was from subscription SaaS and support and maintenance. The remainder of our revenue, or \$17.6 million, \$16.6 million and \$12.3 million for the years ended December 31, 2019, 2018 and 2017, respectively, was attributable to professional services and other. All of our revenue from support and maintenance and a portion of our revenue from professional services is associated with our on-premise offerings. As a result, for the periods presented, the percentage of our total revenue from all revenue sources associated with on-premise offerings was significantly higher than the percentage of our total revenue based solely on subscription term-based licenses and we expect this to remain true for the foreseeable future. We have responded to the increasing market shift toward cloud-based services by developing and introducing additional cloud-based IAM offerings to our customers. While our customers are increasingly adopting our cloud-based offerings, we expect our customers to continue to require substantial on-premise and hybrid offerings. To support hybrid deployment of our offerings, our developers and support team must be trained on and learn multiple environments in which our platform is deployed, which is more expensive than supporting a cloud-only offering. Moreover, we must engineer our software for on-premise, cloud and hybrid deployments, which we expect will cause us additional research and development expense that may impact our operating results. Furthermore, we cannot assure you that the market for cloud-based offerings will develop at a rate or in the manner we expect or that our cloud-based offerings will be competitive with those of more established cloud-based providers or other new market entrants. We are directing a significant portion of our financial and operating resources to implement a robust and secure cloud-based offering for our customers, but even if we continue to make these investments, we may be unsuccessful in growing or implementing our cloud-based offerings in a way that competes successfully against our current and future competitors and in such event our business, results of operations and financial condition could be harmed. Customers may require features and capabilities that our current solutions or solution packages do not have and that we may be unable to develop. If we are unable to develop and deploy cloud-based offerings alongside on-premise offerings that satisfy customer preferences in a timely and cost-effective manner, it may harm our ability to renew subscriptions with existing customers and to create or increase demand for our solutions or solution packages with new customers, and may adversely impact our financial condition and results of operations.

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

The IAM market is intensely competitive, and we expect competition to increase in the future from established competitors and new market entrants. We face competition from (1) legacy providers, (2) cloud-only providers and (3) homegrown solutions. Legacy providers include Broadcom, IBM and Oracle, among others. We also compete with cloud-only providers, such as Okta and OneLogin that primarily focus on the workforce use case. Microsoft also competes in our market and has tied its identity services to both its Azure and Office365 offerings. With the recent increase in large merger and acquisition transactions in the technology industry, particularly transactions involving cloud-based technologies, there is a greater likelihood that we will compete with other large technology companies in the future. For example, Amazon or Google could acquire or develop an IAM or identity security platform that competes directly with our solutions. These companies have significant name recognition, considerable resources and existing IT infrastructures and powerful economies of scale and scope, which allow them to rapidly develop and deploy new solutions. Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages such as greater name

recognition and longer operating histories, larger sales and marketing budgets and resources, broader distribution and established relationships with channel partners and customers, greater customer support resources, greater resources to make acquisitions, lower labor and development costs, larger and more mature intellectual property portfolios and substantially greater financial, technical and other resources.

In addition, some of our larger competitors have substantially broader product offerings and leverage their relationships based on other products they offer or incorporate functionality into existing products to gain business in a manner that discourages users from purchasing our solutions or solution packages, including through selling at zero or negative margins, product bundling or closed technology platforms. Potential customers may also prefer to purchase from their existing suppliers rather than a new supplier regardless of product performance or features. Our larger competitors often have broader product lines and market focus and are less susceptible to downturns in a particular market. Our competitors may also seek to repurpose their existing offerings to provide identity solutions with subscription models. Additionally, start-up companies that innovate and large competitors that are making significant investments in research and development may invent similar or superior products and technologies that compete with our solutions or solution packages.

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

***A network or data security incident may allow unauthorized access to our network or data or our customers' data, harm our reputation, create additional liability and adversely impact our financial results.***

Increasingly, companies are subject to a wide variety of attacks on their networks and systems. In addition to threats from traditional computer hackers, malicious code (such as malware, viruses, worms and ransomware), employee theft or misuse, password spraying, phishing and distributed denial-of-service ("DDOS") attacks, we now also face threats from sophisticated nation-state and nation-state supported actors who engage in attacks (including advanced persistent threat intrusions) that add to the risks to our internal networks, our platform, our third-party service providers and our customers' systems and the information that they store and process. Despite significant efforts to create security barriers to safeguard against such threats, it is virtually impossible for us to entirely mitigate these risks. As a well-known provider of IAM solutions, we pose an attractive target for such attacks. The security measures we have integrated into our internal networks and platform, which are designed to detect unauthorized activity and prevent or minimize security breaches, may not function as expected or may not be sufficient to protect our internal networks and platform against certain attacks. In addition, techniques used to sabotage or obtain unauthorized access to networks in which data is stored or through which data is transmitted change frequently and generally are not recognized until launched against a target. As a result, we may be unable to anticipate these techniques or implement adequate preventative measures to prevent an electronic intrusion into our networks.

If a breach of customer data security or unauthorized access to customer systems through our platform were to occur, as a result of third-party action, employee error, malfeasance or otherwise, and the confidentiality, integrity or availability of our customers' data or systems was disrupted, we could incur significant liability to our customers and to individuals or businesses whose information we process, and our platform may be perceived as less desirable, which could negatively affect our business and damage our reputation. In such event, the potential liability exposure to our customers under our contracts could significantly exceed the revenue associated with those contracts. Our ability to retain existing customers, expand use case and solution or

solution package penetration with existing customers and acquire new customers is dependent upon our reputation as a trusted intelligent security provider. The importance of our reputation in retaining existing business and acquiring new business is heightened by our focus on enterprise customers. In addition, we have a number of customers that operate in highly-regulated industries where our customers' data is particularly sensitive, such as financial services and healthcare. A network or security breach could damage our relationships with customers, result in the loss of customers across one or more use case, solution or solution package and make it more challenging to acquire new customers and such damage would likely be heightened in the event a network or security breach occurred in the highly-regulated industries we serve. Because techniques used to obtain unauthorized access to, or sabotage, systems change frequently and may not be recognized until launched against a target, we and our customers may be unable to anticipate these techniques or implement adequate preventive measures.

In addition, security incidents impacting our platform or the systems of our third-party service providers could result in a risk of loss or unauthorized access to or disclosure of the information we process on behalf of our customers. This, in turn, could require notification under applicable data privacy regulations, and could lead to litigation, governmental audits and investigations and possible liability, damage our relationships with our existing customers, trigger indemnification and other contractual obligations, cause us to incur investigation, mitigation and remediation expenses, and have a negative impact on our ability to attract and retain new customers. Furthermore, any such incident, including a breach of our customers' systems, could compromise our networks or networks secured by our solutions, creating system disruptions or slowdowns and exploiting security vulnerabilities of our or our customers' networks, and the information stored on our or our customers' systems could be accessed or disclosed without authorization, altered, lost or stolen, which could subject us to liability and cause us financial harm. An actual or perceived breach of our networks, our customers' networks or other networks secured by our solutions, whether or not due to a vulnerability in our platform, may also undermine confidence in our platform or our industry and result in expenditure of significant resources in efforts to analyze, correct, eliminate or work around errors or defects, delayed or lost revenue, delay in the development or release of new solutions, solution packages or services, an increase in collection cycles for accounts receivable, damage to our brand and reputation, negative publicity, loss of channel partners, customers and sales, increased costs to remedy any problem, increased insurance expense and costly litigation. In addition, if a high profile security incident occurs with respect to another IAM solution provider, our customers and potential customers may lose trust in the value of the IAM solution business model generally, including the security of our solutions, which could adversely impact our ability to retain existing customers or attract new ones, potentially causing a negative impact on our business. Any of these negative outcomes could adversely impact market acceptance of our solutions or solution packages and could adversely affect our business, results of operations and financial condition.

Third parties may attempt to fraudulently induce employees or customers into disclosing sensitive information such as user names, passwords or other information or otherwise compromise the security of our internal networks, electronic systems and/or physical facilities or those of our third-party service providers, in order to gain access to our data or our customers' data, which could result in significant legal and financial exposure, a loss of confidence in the security of our platform, interruptions or malfunctions in our operations, and, ultimately, harm to our future business prospects and revenue. We may be required to expend significant capital and financial resources to protect against such threats or to alleviate problems caused by breaches in security.

***Our future revenue and operating results will be harmed if we are unable to acquire new customers, if our customers do not renew their arrangements with us, or if we are unable to expand sales to our existing customers or develop new solutions and solution packages that achieve market acceptance.***

To continue to grow our business, it is important that we continue to acquire new customers. Our success in adding new customers depends on numerous factors, including our ability to (1) offer a compelling Intelligent Identity Platform and effective solutions and solution packages, (2) execute our sales and marketing strategy, (3) attract, effectively train and retain new sales, marketing, professional services and support personnel in the markets we pursue, (4) develop or expand relationships with channel partners, system integrators and technology partners, (5) expand into new geographies and vertical markets, (6) deploy our platform, solutions and solution packages for new customers and (7) provide quality customer support once deployed.

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

Our ability to increase revenue also depends in part on our ability to increase the number of identities managed by our platform and sell more use cases, solutions and solution packages to our existing and new customers. Our ability to increase sales to existing customers depends on several factors, including their experience with implementing our solutions and solution packages and using our platform and the existing solutions they have implemented, their ability to integrate our solutions and solution packages with existing technologies and our pricing model. As we expand our market reach, we may experience difficulties in gaining traction and raising awareness among potential customers regarding the critical role that our solutions play in securing their businesses and we may face more competitive pressure in such markets.

If our new solutions and/or solution packages do not achieve adequate acceptance in the market or if we fail to effectively incorporate features and capabilities that our customers expect, our competitive position could be impaired, and our potential to generate new revenue or to retain existing revenue could be diminished. The adverse effect on our financial results may be particularly acute because of the significant research, development, marketing, sales and other expenses we will have incurred in connection with the new solutions and solution packages and our ability to introduce compelling new solutions and solution packages that address the requirements of our customers in light of the dynamic IAM market in which we operate.

If we are unable to successfully acquire new customers, retain our existing customers, expand sales to existing customers or introduce new solutions and solution packages, our business, financial condition and operating results could be adversely affected.

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

We have experienced, and may continue to experience, rapid growth and organizational change, which has placed, and may continue to place, significant demands on our management and our operational and financial resources. Additionally, our organizational structure may become more complex as we improve our operational, financial and management controls, as well as our reporting systems and procedures. We may require significant capital expenditures and the allocation of valuable management resources to grow and change in these areas. If we fail to effectively manage our anticipated growth and change, the quality of our platform may suffer, which could negatively affect our brand and reputation and harm our ability to retain and attract customers and employees.

We currently have international operations in the United Kingdom, Canada, Australia, France, Germany, India, Israel, the Netherlands and Switzerland, and we may continue to expand our international operations in these jurisdictions and/or other countries in the future. Our expansion has placed, and our expected future growth will continue to place, a significant strain on our managerial, customer operations, research and development, sales and marketing, administrative, financial and other resources. If we are unable to manage our continued growth successfully, our business and results of operations could suffer.

In addition, as we expand our business, it is important that we continue to maintain a high level of customer service and satisfaction. As our customer base continues to grow, we will need to expand our account management, customer service and other personnel, and our network of channel partners and system integrators, to provide personalized account management and customer service. If we are not able to continue

to provide high levels of customer service, our reputation, as well as our business, results of operations and financial condition, could be adversely affected.

***We depend on our senior management team and other key employees, and the loss of one or more of these employees or an inability to attract and retain other highly skilled employees could harm our business.***

Our success depends largely upon the continued services of our senior management team and other key employees. We rely on our leadership team in the areas of research and development, operations, security, marketing, sales, customer support, general and administrative functions and on individual contributors in our research and development and operations functions. From time to time, there may be changes in our executive management team resulting from the hiring or departure of executives, which could disrupt our business. We do not have employment agreements with our executive officers or other key personnel that require them to continue to work for us for any specified period and, therefore, they could terminate their employment with us at any time. The loss of one or more the members of our senior management team, or other key employees could harm our business. In particular, the loss of services of our founder and Chief Executive Officer, Andre Durand, could significantly delay or prevent the achievement of our strategic objectives. Changes in our executive management team may also cause disruptions in, and harm to, our business.

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

Our ability to increase our customer base and achieve broader market acceptance of our solutions and solution packages will depend on our ability to expand our sales and marketing operations. Our business will be harmed if our business development efforts do not generate a corresponding increase in revenue. We may not achieve anticipated revenue growth from expanding our direct sales force if we are unable to hire and develop talented direct sales personnel, if our new direct sales personnel are unable to achieve desired productivity levels in a reasonable period of time, or if we are unable to retain our existing direct sales personnel. There is significant competition for sales personnel with the advanced sales skills and technical knowledge we need. Selling our solutions and solution packages to sophisticated enterprise customers requires particularly talented sales personnel with the ability to communicate the transformative potential of our platform.

***We must attract and retain highly qualified personnel in order to execute our growth plan.***

Competition for highly qualified personnel is intense, especially for engineers experienced in designing and developing software and SaaS offerings and experienced sales professionals. In recent years, recruiting, hiring and retaining employees with expertise in our industry has become increasingly difficult as the demand for cybersecurity and identity professionals has increased as a result of the recent cybersecurity attacks on global corporations and governments. We have, from time to time experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications. Many of the companies with which we compete for experienced personnel have greater resources than we have. If we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or we have breached certain legal obligations, resulting in a diversion of our time and resources. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be harmed.

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

Our continued growth depends on the ability of our existing and potential customers to access our platform 24 hours a day, seven days a week, without interruption or degradation of performance. We have in the past and may in the future experience disruptions, outages and other performance problems with our infrastructure due to a variety of factors, including infrastructure changes, introductions of new functionality, human or software errors, capacity constraints, DDOS attacks or other security-related incidents. In some instances, we



may not be able to identify the cause or causes of these performance problems immediately or in short order. We may not be able to maintain the level of service uptime and performance required by our customers, especially during peak usage times and as our solutions and solution packages become more complex and our user traffic increases. If our platform is unavailable or if our customers are unable to access our solutions or deploy them within a reasonable amount of time, or at all, our business would be harmed. The adverse effects of any service interruptions on our reputation and financial condition may be disproportionately heightened due to the nature of our business and the fact that our customers expect continuous and uninterrupted access to our solutions and have a low tolerance for interruptions of any duration. Since our customers rely on our solutions to provide and secure access to their IT infrastructures and to support customer-facing applications, any outage on our platform would impair the ability of our customers to operate their businesses, which would negatively impact our brand, reputation and customer satisfaction.

Moreover, we depend on services from various third parties to maintain our cloud infrastructure and deploy our solutions, such as Amazon Web Services (“AWS”) cloud infrastructure services, which hosts our platform. If a service provider fails to provide sufficient capacity to support our platform or otherwise experiences service outages, such failure could interrupt our customers’ access to our services, which could adversely affect their perception of our platform’s reliability and our revenue. Any disruptions in these services, including as a result of actions outside of our control, would significantly impact the continued performance of our solutions. In the future, these services may not be available to us on commercially reasonable terms, or at all. Any loss of the right to use any of these services could result in decreased functionality of our solutions until equivalent technology is either developed by us or, if available from another provider, is identified, obtained and integrated into our infrastructure. If we do not accurately predict our infrastructure capacity requirements, our customers could experience service shortfalls. We may also be unable to effectively address capacity constraints, upgrade our systems as needed and continually develop our technology and network architecture to accommodate actual and anticipated changes in technology.

Our platform is accessed by a large number of customers, often at the same time. As we continue to expand the number of our customers and solutions and solution packages available to our customers, we may not be able to scale our technology to accommodate the increased capacity requirements, which may result in interruptions or delays in service. In addition, the failure of third-party cloud infrastructure providers, third-party internet service providers or other third-party service providers whose services are integrated with our platform to meet our capacity requirements could result in interruptions or delays in access to our platform or impede our ability to scale our operations. In the event that our service agreements are terminated with our cloud infrastructure providers, or there is a lapse of service, interruption of internet service provider connectivity or damage to such providers’ facilities, we could experience interruptions in access to our platform as well as delays and additional expense in arranging new facilities and services.

Any of the above circumstances or events may harm our reputation, cause customers to terminate their agreements with us, impair our ability to obtain subscription renewals from existing customers, impair our ability to grow our customer base, result in the expenditure of significant financial, technical and engineering resources, subject us to financial penalties and liabilities under our service level agreements, and otherwise could adversely affect our business, results of operations and financial condition.

***The delivery of our platform depends on AWS cloud infrastructure services.***

Our SaaS offerings are hosted solely in AWS and our other offerings utilize the cloud infrastructure offered by AWS. Our operations depend on maintaining the configuration, architecture and interconnection specifications required by AWS. Although we have disaster recovery plans that utilize multiple AWS infrastructure locations, any incident affecting this infrastructure that may be caused by fire, flood, severe storm, earthquake, power loss, telecommunications failures, unauthorized intrusion, computer viruses and disabling devices, natural disasters, war, criminal act, military actions, terrorist attacks and other similar events beyond our control could negatively affect our platform. A prolonged AWS service disruption affecting our platform for any of the foregoing reasons could damage our reputation with current and potential customers, expose us to liability, cause us to lose customers or otherwise harm our business. In addition, since all of our cloud-based offerings utilize AWS cloud infrastructure services, in the event of a prolonged AWS services disruption we may not be able to find an alternative provider on commercially reasonable terms or in a timely manner, if at all. We may also incur

significant costs for using alternative equipment or taking other actions in preparation for, or in reaction to, events that damage the AWS services we use.

AWS enables us to order and reserve server capacity in varying amounts and sizes distributed across multiple regions. AWS provides us with computing and storage capacity pursuant to an agreement that continues until terminated by either party. AWS may terminate the agreement by providing 30 days prior written notice and may, in some cases, terminate the agreement immediately for cause upon notice. If AWS terminates its agreement with us, we may be unable to deploy certain of our solutions and our business, results of operations and financial condition may be adversely affected.

In addition, since all of our cloud-based offerings utilize AWS cloud infrastructure resources, our customers' satisfaction with our cloud-based offerings is dependent in part upon their perceptions and satisfaction with AWS cloud infrastructure services. Dissatisfaction with AWS cloud infrastructure services could damage our relationships with customers and/or result in the loss of customers across one or more use case, solution or solution package.

***Data privacy concerns, evolving regulations of cloud computing, cross-border data transfer restrictions and other domestic and foreign laws and regulations may limit the use and adoption of, or require modification of, our solutions, solution packages and services, which could adversely affect our business.***

Laws and regulations related to the provision of services on the Internet are increasing, as federal, state and foreign governments continue to adopt new laws and regulations addressing data privacy and the collection, processing, storage and use of personal information. Internationally, many of the jurisdictions in which we operate have established their own data security and privacy legal frameworks with which we, or our customers, must comply. We have implemented various features and processes intended to enable our customers to better comply with applicable privacy and security requirements, but these features and processes do not guarantee compliance and may not guard against all potential privacy concerns.

For example, the European Union (the "EU") adopted the GDPR, which became effective and enforceable across all then-current member states of the EU on May 25, 2018. Following the U.K.'s withdrawal from the EU on January 31, 2020, pursuant to the transitional arrangements agreed between the U.K. and EU, the GDPR will continue to have effect in U.K. law, until December 31, 2020, in the same fashion as was the case prior to that withdrawal as if the U.K. remained a member state of the EU for such purposes. Following December 31, 2020, it is likely that the data protection obligations of the GDPR will continue to apply to U.K.-based organization's processing of personal data in substantially unvaried form and fashion, for at least the short term thereafter. The GDPR applies to any company established in the EU as well as to those outside the EU if they process personal data in relation to the offering of goods or services to individuals in the EU and/or the monitoring of their behavior. The GDPR enhances data protection obligations for both processors and controllers of personal data, including by extending the rights available to affected data subjects, materially expanding the definition of what is expressly noted to constitute personal data, requiring additional disclosures about how personal data is to be used, and imposing limitations on retention of personal data, creating mandatory data breach notification requirements in certain circumstances, and establishing onerous new obligations on services providers who process personal data simply on behalf of others. Under the GDPR, fines of up to €20 million or up to 4% of an undertaking's total worldwide annual turnover of the preceding financial year, whichever is higher, may be imposed. In addition to administrative fines, a wide variety of other potential enforcement powers are available to competent authorities in respect of potential and suspected violations of the GDPR, including extensive audit and inspection rights, and powers to order temporary or permanent bans on all or some processing of personal data carried out by noncompliant actors. Given the breadth and depth of changes in data protection obligations, complying with its requirements has caused us to expend significant resources and such expenditures are likely to continue into the near future as we respond to new interpretations, additional guidance and potential enforcement actions and patterns, and as we continue to negotiate data processing agreements with our customers and business partners. While we have taken steps to comply with the GDPR, and implementing legislation in applicable member states, including by seeking to establish appropriate lawful bases for the various processing activities we carry out as a controller, reviewing our security procedures, and entering into data processing agreements with relevant customers and business partners, we

cannot assure you that our efforts to achieve and remain in compliance have been, and/or will continue to be, fully successful.

In the United States, California enacted the California Consumer Privacy Act (the “CCPA”), on June 28, 2018, which took effect on January 1, 2020. The CCPA gives California residents expanded rights to access and delete their personal information, opt out of certain personal information sharing and receive detailed information about how their personal information is used. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. The CCPA may increase our compliance costs and potential liability. Some observers have noted that the CCPA could mark the beginning of a trend toward more stringent privacy legislation in the U.S., which could increase our potential liability and adversely affect our business.

Privacy and data protections laws and regulations are subject to new and differing interpretations and there may be significant inconsistency in laws and regulations among the jurisdictions in which we operate or provide our SaaS offerings. Legal and other regulatory requirements could restrict our ability to store and process data as part of our SaaS offerings, or, in some cases, impact our ability to provide our SaaS offerings in certain jurisdictions. Our inability to provide our offerings in certain jurisdictions, particularly China and Russia, as a result of their local data privacy frameworks may result in the loss of business opportunities from customers operating in, or seeking to expand into, those jurisdictions. In addition, we may seek to engage third party support providers in certain jurisdictions in order to comply with our customers’ data privacy concerns and such engagements may be costly.

Privacy and data protection laws and regulations may also impact our customers’ ability to deploy certain of our solutions and solution packages globally, to the extent they utilize our solutions and solution packages for storing personal information that they process. Additionally, if third parties that we work with violate applicable laws or our policies, such violations may also put our customers’ information at risk and could in turn have an adverse effect on our business. The costs of compliance with, and other burdens imposed by, data privacy laws, regulations and standards may require resources to create new solutions or solution packages or modify existing solutions or solution packages, could lead to us being subject to significant fines, penalties or liabilities for noncompliance, could lead to complex and protracted contract negotiations with respect to privacy and data protection terms, and may slow the pace at which we close sales transactions, any of which could harm our business.

The data protection landscape is rapidly evolving, and we expect that there will continue to be new proposed laws, regulations and industry standards concerning privacy, data protection and information security. We cannot yet determine the impact that such future laws, regulations and standards may have on our business. Such laws and regulations are often subject to differing interpretations and may be inconsistent among jurisdictions. Any failure or perceived failure by us to comply with federal, state or foreign laws or regulations, industry standards, contractual obligations or other legal obligations, with respect to any security incident, whether or not resulting in unauthorized access to, or acquisition, release or transfer of personal data or other data, may result in governmental enforcement actions and prosecutions, private litigation, fines and penalties, friction in our customer relationships or adverse publicity, and could cause our customers to lose trust in us, which could have an adverse effect on our reputation and business.

Around the world, there are numerous lawsuits in process against various technology companies that process personal data. If those lawsuits are successful, it could increase the likelihood that we may be exposed to liability for our own policies and practices concerning the processing of personal data and could hurt our business. Furthermore, the costs of compliance with, and other burdens imposed by, laws, regulations and policies concerning privacy and data security that are applicable to the businesses of our customers may limit the use and adoption of our platform and reduce overall demand for it.

In addition, if our platform is perceived to cause, or is otherwise unfavorably associated with, violations of privacy or data security requirements, it may subject us or our customers to public criticism and potential legal liability. Existing and potential laws and regulations concerning privacy and data security and increasing sensitivity of consumers to unauthorized processing of personal data may create negative public reactions to technologies, solutions, solution packages and services such as ours. Public concerns regarding personal data

processing, privacy and security may cause some of our customers' end users to be less likely to visit their websites or otherwise interact with them. If enough end users choose not to visit our customers' websites or otherwise interact with them, our customers could stop using our platform. This, in turn, may reduce the value of our service and slow or eliminate the growth of our business.

Our continued development of AI and ML is dependent, in part, on our customers' willingness to allow us to use their data to develop the necessary algorithms. Concerns about data privacy may discourage customers from allowing us to use their data in this manner, which may limit our ability to continue to leverage AI and ML in our Intelligent Identity Platform.

***Our quarterly operating results and other metrics are likely to vary significantly and be unpredictable, which could cause the trading price of our stock to decline.***

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

- the level of demand for our solutions and solution packages, including our newly-introduced solutions and offering of solution packages, and the level of perceived urgency regarding security threats and compliance requirements;
- the timing and use of new subscriptions and renewals of existing subscriptions;
- the mix of cloud and on-premise offerings sold and the associated contract term;
- the extent to which customers subscribe for additional solutions or solution packages, or increase the number of identities or use cases;
- significant security breaches of, technical difficulties with, or interruptions to, the delivery and use of our offerings;
- customer budgeting cycles and seasonal buying patterns where our customers often time their purchases and renewals of our solutions or solution packages to coincide with their fiscal year end, which is typically June 30 or December 31;
- any changes in the competitive landscape of our industry, including consolidation among our competitors, customers, partners or resellers;
- timing of costs and expenses during a quarter;
- deferral of orders in anticipation of new solutions, solution packages or enhancements announced by us or our competitors;
- price competition;
- changes in renewal rates and terms in any quarter;
- costs related to the acquisition of businesses, talent, technologies or intellectual property by us, including potentially significant amortization costs and possible write-downs;
- litigation-related costs, settlements or adverse litigation judgments;
- any disruption in our sales channels or termination of our relationship with channel and other strategic partners;

- general economic conditions, both domestically and in our foreign markets, and related changes to currency exchange rates;
- insolvency or credit difficulties confronting our customers, affecting their ability to purchase or pay for our solutions and solution packages; and
- future accounting pronouncements or changes in our accounting policies.

Any one of the factors above or the cumulative effect of some of the factors referred to above may result in significant fluctuations in our financial and other operating results, including fluctuations in our key metrics. This variability and unpredictability could result in our failing to meet the expectations of securities analysts or investors for any period. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our shares could fall substantially and we could face costly lawsuits, including securities class action suits. In addition, a significant percentage of our operating expenses are fixed in nature and based on forecasted revenue and cash flow trends. Accordingly, in the event of revenue shortfalls, we are generally unable to mitigate the negative impact on margins or other operating results in the short term.

We may fail to meet or exceed the expectations of securities analysts and investors, and the market price for our common stock could decline. If one or more of the securities analysts who cover us change their recommendation regarding our stock adversely, the market price for our common stock could decline. Additionally, our stock price may be based on expectations, estimates or forecasts of our future performance that may be unrealistic or may not be achieved. Further, our stock price may be affected by financial media, including press reports and blogs.

***Our revenue recognition policy and other factors may distort our financial results in any given period and make them difficult to predict.***

Under accounting standards update No. 2014-09 (Topic 606), *Revenue from Contracts with Customers* (“ASC 606”), we recognize revenue when our customer obtains control of goods or services in an amount that reflects the consideration that we expect to receive in exchange for those goods or services. Our subscription revenue includes subscription term-based license revenue, which is recognized when we transfer control of the term-based license to the customer, and subscription SaaS and support and maintenance revenue, which is recognized ratably over the contract period. Because subscription term-based license revenue is recognized upfront, a single, large license in a given period may distort our operating results for that period. In contrast, the impact of agreements that are recognized ratably may take years to be fully reflected in our financial statements. Consequently, a significant increase or decline in our subscription SaaS and support and maintenance contracts in any one quarter will not be fully reflected in the results for that quarter, but will affect our revenue in future quarters. This also makes it challenging to forecast our revenue for future periods, as both the mix of solutions, solution packages and services we will sell in a given period, as well as the size of contracts, is difficult to predict.

Furthermore, the presentation of our financial results requires us to make estimates and assumptions that may affect revenue recognition. In some instances, we could reasonably use different estimates and assumptions, and changes in estimates are likely to occur from period to period. See “Item 8. Financial Statements — Note 2. Summary of Significant Accounting Policies.”

Given the foregoing factors, our actual results could differ significantly from our estimates, comparing our revenue and operating results on a period-to-period basis may not be meaningful, and our past results may not be indicative of our future performance.

***If we fail to enhance our brand cost-effectively, our ability to expand our customer base will be impaired and our business, results of operations and financial condition may be adversely affected.***

We believe that developing and maintaining awareness of our brand in a cost-effective manner is critical to achieving widespread acceptance of our existing and future solutions and solution packages and is an important

element in attracting new customers. We believe that the importance of brand recognition will increase as competition in our market increases. Successful promotion of our brand will depend largely on the effectiveness of our marketing efforts and on our ability to develop and deploy high-quality, reliable and differentiated solutions and solution packages to customers. In the past, our efforts to build our brand have involved significant expense. Brand promotion activities may not yield increased revenue, and even if they do, any increased revenue may not offset the expense we incur in building our brand. If we fail to successfully promote and maintain our brand, or incur substantial expense in an unsuccessful attempt to promote and maintain our brand, we may fail to attract new customers or retain our existing customers to the extent necessary to realize a sufficient return on our brand-building efforts, and our business, results of operations and financial condition could be adversely affected.

***We are subject to anti-corruption, anti-bribery and similar laws, and non-compliance with such laws can subject us to criminal penalties or significant fines and harm our business and reputation.***

We are subject to anti-corruption and anti-bribery and similar laws, such as the U.S. Foreign Corrupt Practices Act of 1977, as amended (the “FCPA”), the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, the U.K. Bribery Act 2010 and other anti-corruption, anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption and anti-bribery laws have been enforced aggressively in recent years and are interpreted broadly and prohibit companies and their employees and agents from promising, authorizing, making, offering, soliciting, or accepting, directly or indirectly, improper payments or other improper benefits to or from any person whether in the public or private sector. As we increase our international sales and business, our risks under these laws may increase. Noncompliance with these laws could subject us to investigations, sanctions, settlements, prosecution, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, adverse media coverage and other consequences. Any investigations, actions or sanctions could adversely affect our business, results of operations and financial condition.

***We are subject to governmental export and import controls and economic sanctions laws that could impair our ability to compete in international markets and subject us to liability if we are not in full compliance with applicable laws.***

Our business activities are subject to various restrictions under U.S. export and import controls and trade and economic sanctions laws, including the U.S. Commerce Department’s Export Administration Regulations, U.S. Customs regulations and various economic and trade sanctions regulations maintained by the U.S. Treasury Department’s Office of Foreign Assets Control. U.S. export control laws and U.S. economic sanctions laws include prohibitions on the sale or supply of certain products and services to U.S. embargoed or sanctioned countries, governments, persons and entities. Changes in our solutions, solution packages or services or changes in applicable export or import regulations may create delays in the introduction and sale of our solutions and solution packages in international markets, prevent our customers with international operations from deploying our solutions or solution packages or, in some cases, prevent the export or import of our solutions or solution packages to certain countries, governments, or persons altogether. Any decreased use of our solutions and solution packages or limitation on our ability to export or sell our solutions and solution packages would likely adversely affect our business.

Furthermore, we incorporate encryption technology into certain of our solutions. U.S. export control laws require authorization for the export of encryption items. In addition, various countries regulate the import of certain encryption technology, including through import permitting and licensing requirements, and have enacted laws that could limit our ability to deploy our solutions, solution packages and services or could limit our customers’ ability to implement our offerings and services in those countries. Obtaining the necessary authorizations, including any required license, for a particular transaction may be time-consuming, is not guaranteed, and may result in the delay or loss of sales opportunities.

Although we take precautions to prevent our solutions and solution packages from being provided in violation of U.S. export control and economic sanctions laws, our solutions and solution packages may have been in the past, and could in the future be, provided inadvertently in violation of such laws. If we fail to comply with U.S. export control and economic sanctions laws and regulations, we and certain of our employees could be

subject to civil or criminal penalties, including the possible loss of export privileges and monetary penalties. In addition, violations of such laws could result in negative consequences to us, including government investigations, penalties and harm to our reputation.

***We function as a HIPAA “business associate” for certain of our customers and, as such, are subject to strict privacy and data security requirements. If we fail to comply with any of these requirements, we could be subject to significant liability, all of which can adversely affect our business as well as our ability to attract and retain new customers.***

The Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act (“HITECH”) and their respective implementing regulations, (“HIPAA”), imposes specified requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA’s security standards directly applicable to “business associates.” We function as a business associate for certain of our customers that are HIPAA covered entities and service providers, and in that context we are regulated as a business associate for the purposes of HIPAA. If we are unable to comply with our obligations as a HIPAA business associate, we could face substantial civil and even criminal liability. HITECH imposes four tiers of civil monetary penalties and gives state attorneys general authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys’ fees and costs associated with pursuing federal civil actions. In addition, many state laws govern the privacy and security of health information in certain circumstances, many of which differ from HIPAA and each other in significant ways and may not have the same effect.

As a business associate, we are required by HIPAA to maintain HIPAA-compliant business associate agreements with our customers that are HIPAA covered entities and service providers, as well as our subcontractors that access, maintain, create or transmit individually identifiable health information on our behalf for the rendering of services to our HIPAA covered entity and service provider customers. These agreements impose stringent data security and other obligations on us. If we or our subcontractors are unable to meet the requirements of any of these business associate agreements, we could face contractual liability under the applicable business associate agreement as well as possible civil and criminal liability under HIPAA, all of which can have an adverse impact on our business and generate negative publicity, which, in turn, can have an adverse impact on our ability to attract and retain customers.

***We may be the subject of various legal proceedings which could have a material adverse effect on our business, financial condition or results of operations.***

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

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

Since we primarily focus on selling our solutions and solution packages to enterprises, the timing of our sales can be difficult to predict. We and our channel partners are often required to spend significant time and resources to better educate and familiarize potential customers with the value proposition of our platform, solutions and solution packages. Customers often view the purchase of our solutions and solution packages as a strategic decision and significant investment and, as a result, frequently require considerable time to



evaluate, test and qualify our platform, solutions and solution packages prior to purchasing our solutions and/or solution packages. In particular, for customers in highly-regulated industries, the selection of a security solution provider is a critical business decision due to the sensitive nature of these customers' data, which results in particularly extensive evaluation prior to the selection of information security vendors. During the sales cycle, we expend significant time and money on sales and marketing and contract negotiation activities, which may not result in a sale. Additional factors that may influence the length and variability of our sales cycle include:

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

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

***Our growth strategy includes the acquisition of other businesses or technologies, and we may not be able to identify suitable acquisition targets or otherwise successfully implement our growth strategy.***

In order to expand our business, we have made several acquisitions of businesses, products and technologies and expect to continue making similar acquisitions and possibly larger acquisitions as part of our growth strategy. The success of our future growth strategy will depend in part on our ability to identify, negotiate, complete and integrate the acquisition of businesses or technologies and, if necessary, to obtain satisfactory debt or equity financing to fund those acquisitions. We expect to continue evaluating potential strategic acquisitions of businesses, assets and technologies. However, we may not be able to identify suitable candidates, negotiate appropriate or favorable acquisition terms, obtain financing that may be needed to consummate such transactions or complete proposed acquisitions. Further, there is significant competition for acquisition and expansion opportunities in the IAM industry.

Acquisitions are inherently risky, and any acquisitions we complete may not be successful. Our past acquisitions and any acquisitions that we may undertake in the future involve numerous risks, including, but not limited to, the following:

- difficulties in integrating and managing the operations, personnel, procedures, IT systems, technologies and the systems and solutions of the companies we acquire;
- diversion of our management's attention from normal daily operations of our business;
- potential loss of key employees, management and engineers of the companies we acquire;
- our inability to maintain the key business relationships and the reputations of the businesses we acquire;
- the price we pay for any business, asset or technology acquired may overstate the value of that business, asset or technology or otherwise be too high;

- uncertainty of entry into markets in which we have limited or no prior experience and in which competitors have stronger market positions;
- our dependence on unfamiliar affiliates, resellers and partners of the companies we acquire;
- our inability to increase sales from an acquisition for a number of reasons, including our failure to drive demand in our existing customer base for acquired businesses, assets or technologies;
- increased costs related to acquired operations and continuing support and development of acquired systems;
- our responsibility for the liabilities of the businesses we acquire and the potential failure to properly identify an acquisition target's liabilities, potential liabilities or risks;
- potential goodwill and intangible asset impairment charges and amortization associated with acquired businesses;
- failure to achieve acquisition synergies or to properly evaluate a target company's capabilities;
- adverse tax consequences associated with acquisitions;
- changes in how we are required to account for our acquisitions under GAAP, including arrangements that we assume from an acquisition;
- potential negative perceptions of our acquisitions by customers, financial markets or investors;
- failure to obtain any applicable required approvals from governmental authorities under competition and antitrust laws on a timely basis, if at all, which could, among other things, delay or prevent us from completing a transaction, or otherwise restrict our ability to realize the expected financial or strategic goals of an acquisition;
- potential increases in our interest expense, leverage and debt service requirements if we incur additional debt to pay for an acquisition, or dilution to our shareholders if we issue shares as consideration for an acquisition; and
- our inability to apply and maintain our internal standards, controls, procedures and policies to acquired businesses.

We regularly evaluate potential acquisition candidates and engage in discussions and negotiations regarding potential acquisitions; however, even if we execute a definitive agreement for an acquisition, there can be no assurance that we will consummate the transaction within the anticipated closing timeframe, or at all. Further, acquisitions typically involve the payment of a premium over book- and market-values and, therefore, some dilution of our tangible book value and earnings per common share may occur in connection with any future transaction.

Inherent in any future acquisition is the risk of transitioning company cultures and facilities. The failure to efficiently and effectively achieve such transitions could increase our costs and decrease our profitability. Although we expect that the realization of efficiencies related to the integration of any acquired businesses will offset incremental transaction and acquisition-related costs over time, anticipated financial benefits may not be achieved in the near term, or at all.

Additionally, acquisitions or asset purchases made entirely or partially for cash may reduce our cash reserves or require us to incur additional debt under our credit agreements or otherwise. We may seek to obtain additional cash to fund an acquisition by selling equity or debt securities. We may be unable to secure the equity or debt funding necessary to finance future acquisitions on terms that are acceptable to us. If we finance

acquisitions by issuing equity or convertible debt securities, our existing shareholders will experience ownership dilution.

The occurrence of any of these risks could have a material adverse effect on our business, results of operations or financial condition.

***We may need to change our pricing models to compete successfully.***

The intense competition we face in the sales of our solutions, solution packages and services and general economic and business conditions can put pressure on us to change our prices. If our competitors offer deep discounts on certain solutions, solution packages or services or develop solutions and/or solution packages that the marketplace considers more valuable than ours, we may need to lower prices or offer other favorable terms in order to compete successfully. Any such changes may reduce margins and could adversely affect operating results. Additionally, the increasing prevalence of cloud and SaaS delivery models offered by us and our competitors may unfavorably impact pricing for both our on-premise and cloud-based offerings, as well as overall demand for our on-premise software and service offerings, which could reduce our revenues and profitability. Our competitors may offer lower pricing on their support offerings, which could put pressure on us to further discount our offering or support pricing. We also must determine the appropriate price of our offerings and services to enable us to compete effectively internationally.

Any broad-based change to our prices and pricing policies could cause our revenue to decline or be delayed as our sales force implements and our customers adjust to new pricing policies. For example, we began providing solution packages that include combinations of our most commonly deployed solutions in March 2020. We or our competitors may bundle solutions in other ways for promotional purposes or as a long-term go-to-market or pricing strategy or provide guarantees of prices and solution and solution package implementations. These practices could, over time, significantly constrain the prices that we can charge for certain of our solutions and solution packages. If we do not adapt our pricing models to reflect changes in customer use of our solutions and solution packages or changes in customer demand, our revenue could decrease.

***Our failure to meet certain of our service level commitments could harm our business, results of operations and financial condition.***

Our customer agreements contain service level commitments, under which we guarantee specified availability and error resolution times with respect to our solutions. Any failure of or disruption to our infrastructure could make our solutions unavailable to our customers. If we are unable to meet the stated service level commitments to our customers or suffer extended periods of unavailability of our SaaS offerings, we may be contractually obligated to provide affected customers with service credits, or customers could elect to terminate and receive refunds for prepaid amounts related to unused subscriptions. Our revenue, other results of operations and financial condition could be harmed if we suffer unscheduled downtime that exceeds the service level commitments under our agreements with our customers, and any extended service outages could adversely affect our business and reputation as customers may elect not to renew.

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

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

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

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

***Our growth is substantially dependent on the success of our strategic relationships with channel partners, technology partners and other third parties.***

As part of our business development efforts, we anticipate that we will continue to depend on relationships with third parties, such as our channel partners and technology partners, to sell, market, build, operate and deploy our solutions and solution packages. Identifying these partners and maintaining these relationships requires significant time and resources. Our competitors may be effective in providing incentives to channel partners and other third parties to favor their solutions or services over subscriptions to our platform and a substantial number of our agreements with channel partners are non-exclusive such that those channel partners may offer customers the solutions of several different companies, including solutions that compete with ours. Our channel partners may cease marketing or reselling our platform with limited or no notice and without penalty. Our channel partners may also choose to promote our competitors' solutions versus our own solutions and solution packages. If our technology partners fail to build, deploy or operate our solutions and/or solution packages in a manner that satisfies our customers, or if we fail to adequately negotiate and document the underlying agreement with such technology partners, our customers may seek direct recourse against us or we may be unable to properly support the solution if the relationship with the technology partner is terminated. In addition, given the competitive landscape, acquisitions of our channel or technology partners by a competitor could adversely affect our customers, as these partners may no longer be in a position to sell, market, build, operate and/or deploy our solutions and solution packages. Furthermore, some of these partners may themselves build competitive solutions that are or may become competitive with certain of our solutions and/or solution packages and then elect to no longer support or integrate with our platform. If we are unsuccessful in establishing or maintaining our relationships with critical third parties, our ability to compete in the marketplace or to grow our revenue could be impaired, and our results of operations may suffer. Even if we are successful, we cannot assure you that these relationships will result in increased customer usage of our solutions or increased revenue.

***Adverse general and industry-specific economic and market conditions and reductions in IT and identity spending may reduce demand for our solutions and solution packages, which could harm our results of operations.***

Our revenue, results of operations, and cash flows depend on the overall demand for our solutions and solution packages. Concerns about the systemic impact of a potential widespread recession (in the United States or internationally), geopolitical issues or the availability and cost of credit could lead to increased market volatility, decreased consumer confidence and diminished growth expectations in the U.S. economy and abroad, which in turn could result in reductions in IT, IAM and identity security spending by our existing and prospective customers. For the year ended December 31, 2019, 31% of our revenue was derived from the financial services industry, including banking. Negative economic conditions, including in the financial services industry, may cause customers to reduce their IT spending. Prolonged economic slowdowns may result in customers delaying or canceling IT projects, choosing to focus on in-house development efforts or seeking to lower their costs by

requesting us to renegotiate existing contracts on less advantageous terms or defaulting on payments due on existing contracts or not renewing at the end of the contract term.

Our customers may merge with other entities who use alternative IAM solutions and, during weak economic times, there is an increased risk that one or more of our customers will file for bankruptcy protection, either of which may harm our revenue, profitability and results of operations. We also face risk from international customers that file for bankruptcy protection in foreign jurisdictions, particularly given that the application of foreign bankruptcy laws may be more difficult to predict. In addition, we may determine that the cost of pursuing any claim may outweigh the recovery potential of such claim. As a result, broadening or protracted extension of an economic downturn could harm our business, revenue, results of operations, and cash flows.

***If our platform, solutions and solution packages do not effectively interoperate with our customers' existing or future IT infrastructures, our business would be harmed.***

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

***Our ability to introduce new solutions and features is dependent on adequate research and development resources and our ability to successfully complete acquisitions. If we do not adequately fund our research and development efforts or complete acquisitions successfully, we may not be able to compete effectively and our business and results of operations may be harmed.***

To remain competitive, we must continue to offer new solutions and enhancements to our platform. This is particularly true as we further expand and diversify our capabilities. Maintaining adequate research and development resources, such as the appropriate personnel and development technology, to meet the demands of the market is essential. If we elect not to or are unable to develop solutions internally due to certain constraints, such as high employee turnover, lack of management ability or a lack of other research and development resources, we may choose to expand into a certain market or strategy via an acquisition for which we could potentially pay too much or fail to successfully integrate into our operations. Further, many of our competitors expend a considerably greater amount of funds on their respective research and development programs, and those that do not may be acquired by larger companies that would allocate greater resources to our competitors' research and development programs. Our failure to maintain adequate research and development resources or to compete effectively with the research and development programs of our competitors would give an advantage to such competitors and our business, results of operations and financial condition could be adversely affected. Moreover, there is no assurance that our research and development or acquisition efforts will successfully anticipate market needs and result in significant new marketable solutions or enhancements to our solutions, design improvements, cost savings, revenues or other expected benefits. If we are unable to generate an adequate return on such investments, we may not be able to compete effectively and our business and results of operations may be materially and adversely affected.

***Our success depends, in part, on the integrity and scalability of our systems and infrastructures. System interruption and the lack of integration, redundancy and scalability in these systems and infrastructures may result in our business, results of operations and financial condition being adversely affected.***

Our success depends, in part, on our ability to maintain the integrity of our systems and infrastructure, including websites, information and related systems. System interruption and a lack of integration and redundancy in our information systems and infrastructure may adversely affect our ability to operate websites, process and fulfill transactions, respond to customer inquiries and generally maintain cost-efficient operations. We may experience occasional system interruptions that make some or all systems or data unavailable or prevent us from efficiently providing access to our platform. Fire, flood, power loss, telecommunications failure, hurricanes, tornadoes, earthquakes, other natural disasters, acts of war or terrorism and similar events or disruptions may damage or interrupt computer, broadband or other communications systems and infrastructure at any time. Any of these events could cause system interruption, delays and loss of critical data, and could prevent us from providing access to our platform.

While we have backup systems for certain aspects of our operations, disaster recovery planning by its nature cannot be sufficient for all eventualities. In addition, we may not have adequate insurance coverage to compensate for losses from a major interruption. If any of these events were to occur, our business, results of operations and financial condition could be adversely affected.

***We rely on software and services from other parties. Defects in or the loss of access to software or services from third parties could increase our costs and adversely affect the quality of our solutions.***

We rely on third-party computer systems, broadband and other communications systems and service providers in providing access to our platform. Any interruptions, outages or delays in our systems and infrastructure, our business and/or third parties, or deterioration in the performance of these systems and infrastructure, could impair our ability to provide access to our platform. Our business would be disrupted if any of the third-party software or services we utilize, particularly with respect to third-party software or services embedded in our solutions, or functional equivalents thereof, were unavailable due to extended outages or interruptions or because they are no longer available on commercially reasonable terms or prices or at all.

In each case, we would be required to either seek licenses to software or services from other parties and redesign our solutions to function with such software or services or develop these components ourselves, which would result in increased costs and could result in delays in our solution and solution package launches and the release of new solution and solution package offerings until equivalent technology can be identified, licensed or developed, and integrated into our solutions. Furthermore, we might be forced to limit the features available in our current or future solutions. If these delays and feature limitations occur, our business, results of operations and financial condition could be adversely affected.

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

Errors, failures, vulnerabilities or bugs may occur in our solutions, especially when updates are deployed or new solutions are rolled out. Our platform is often used in connection with large-scale computing environments with different operating systems, system management software, equipment and networking configurations, which may cause errors or failures of solutions. In addition, deployment of our solutions into complicated, large-scale computing environments may expose errors, failures, vulnerabilities or bugs in our solutions. Any such errors, failures, vulnerabilities or bugs may not be found until after they are deployed to our customers. Real or perceived errors, failures, vulnerabilities or bugs in our solutions could result in negative publicity, loss of customer data, loss of or delay in market acceptance of our solutions, loss of competitive position, or claims by customers for losses sustained by them, all of which could adversely affect our business, results of operations and financial condition.

***If we fail to adequately protect our proprietary rights, our competitive position could be impaired and we may lose valuable assets, generate less revenue and incur costly litigation to protect our rights.***

Our success is dependent, in part, upon protecting our proprietary information and technology. We rely on a combination of patents, copyrights, trademarks, service marks, trade secret laws and contractual restrictions to establish and protect our proprietary rights. However, the steps we take to protect our intellectual property may be inadequate. We will not be able to protect our intellectual property if we are unable to enforce our rights or if we do not detect unauthorized use of our intellectual property. Despite our precautions, it may be possible for unauthorized third parties to copy our solutions and use information that we regard as proprietary to create solutions that compete with ours. Some license provisions protecting against unauthorized use, copying, transfer and disclosure of our solutions may be unenforceable under the laws of certain jurisdictions and foreign countries. Further, the laws of some countries do not protect proprietary rights to the same extent as the laws of the United States, and mechanisms for enforcement of intellectual property rights in some foreign countries may be inadequate. In addition, certain countries into which we may expand our business may require us to do business through an entity that is partially owned by a local investor, to make available our technologies to state regulators or to grant license rights to local partners in a manner not required by the jurisdictions in which we currently operate. To the extent we expand our international activities, our exposure to unauthorized reverse engineering of our technologies or copying and use of our solutions and proprietary information may increase. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon or misappropriating our technology and intellectual property.

We rely in part on trade secrets, proprietary know-how and other confidential information to maintain our competitive position. Although we enter into confidentiality and invention assignment agreements with our employees and consultants and enter into confidentiality agreements with the parties with whom we have strategic relationships and business alliances, no assurance can be given that these agreements will be effective in controlling access to and distribution of our solutions and proprietary information. Further, these agreements do not prevent our competitors from independently developing technologies that are substantially equivalent or superior to our solutions and solution packages.

To protect our intellectual property rights, we may be required to spend significant resources to monitor and protect these rights. Litigation may be necessary in the future to enforce our intellectual property rights and to protect our trade secrets. Such litigation could be costly, time consuming and distracting to management and could result in the impairment or loss of portions of our intellectual property. Furthermore, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims and countersuits attacking the validity and enforceability of our intellectual property rights. Our inability to protect our proprietary technology against unauthorized copying or use, as well as any costly litigation or diversion of our management's attention and resources, could delay further sales or the implementation of our solutions and solution packages, impair the functionality of our solutions, delay introductions of new solutions and solution packages, result in our substituting inferior or more costly technologies into our solutions, or injure our reputation. In addition, we may be required to license additional technology from third parties to develop and market new solutions and solution packages, and we cannot assure you that we could license that technology on commercially reasonable terms or at all, and our inability to license this technology could harm our ability to compete.

***Our results of operations may be harmed if we are subject to an infringement claim or a claim that results in a significant damage award.***

Other companies have claimed in the past, and may claim in the future, that we infringe upon their intellectual property rights. A claim may also be made relating to technology that we acquire or license from third parties. Because of constant technological change in the segments in which we compete, the extensive patent coverage of existing technologies, and the rapid rate of issuance of new patents, it is possible that the number of these claims may grow. If we were subject to a claim of infringement, regardless of the merit of the claim or our defenses, the claim could:

- require costly litigation to resolve and/or the payment of substantial damages or other amounts to settle such disputes;



- require significant management time;
- cause us to enter into unfavorable royalty or license agreements, if such arrangements are available at all;
- require us to discontinue the sale of some or all of our offerings, or to remove or reduce features or functionality of our solutions and solution packages;
- require us to indemnify our customers or third-party service providers; and/or
- require us to expend additional development resources to redesign our solutions and/or solution packages.

Any one or more of the above could adversely affect our business, results of operations and financial condition.

***Our use of open source software in our offerings could negatively affect our ability to sell our solutions and solution packages and subject us to possible litigation.***

We use software modules licensed to us by third-party authors under “open source” licenses in our offerings. Some open source licenses require that users of the applicable software make available source code for modifications or derivative works created using that open source software. If we were to combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release or otherwise make available the source code of our proprietary software to the public. This would allow our competitors to create similar products with lower development effort and time and ultimately could result in a loss of sales for us.

Although we monitor our compliance with open source licenses and attempt to protect our proprietary source code from the effects stated above, we may inadvertently use open source software in a manner we do not intend and that could expose us to claims for breach of contract and intellectual property infringement. In addition, the terms of many open source licenses have not been interpreted by United States courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our solutions and solution packages. If we are held to have breached the terms of an open source software license, we could be required to seek licenses from third parties to continue providing our offerings on terms that are not economically feasible, to re-engineer our offerings, to discontinue the sale of our offerings if re-engineering cannot be accomplished on a timely basis, or to make generally available, in source code form, a portion of our proprietary code, any of which could adversely affect our business, results of operations and financial condition. In addition to the risks described above, usage of open source software typically exposes us to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or assurance of title or controls on the functionality or origin of the software. Many of the risks associated with usage of open source software, such as the lack of warranties or assurances of title, cannot be eliminated, and could, if not properly addressed, negatively affect our business. We have established processes to help alleviate these risks, including a review process for screening requests from our development organizations for the use of open source software, but we cannot be sure that our processes for controlling our use of open source software in our offerings will be effective. Use of open source software may also present additional security risks because the public availability of such software may make it easier for hackers and other third parties to determine how to compromise our offerings.

***We rely on SaaS vendors to operate certain functions of our business and any failure of such vendors to provide services to us could adversely impact our business and operations.***

We rely on third-party SaaS vendors to operate certain critical functions of our business, including financial management, human resource management and customer relationship management. If these services become unavailable due to extended outages or interruptions or because they are no longer available on commercially reasonable terms or prices, our expenses could increase, our ability to manage our finances could be interrupted and our processes for managing sales of our solutions and solution packages and supporting our

customers could be impaired until equivalent services, if available, are identified, obtained and integrated, all of which could harm our business.

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

Our agreements with customers and other third parties may include indemnification or other provisions under which we agree to indemnify them for losses suffered or incurred as a result of claims of intellectual property infringement, damage caused by us to property or persons, or other liabilities relating to or arising from the use of our platform or other acts or omissions. The term of these contractual provisions often survives termination or expiration of the applicable agreement. As we continue to grow, the possibility of infringement claims and other intellectual property rights claims against us may increase. For any intellectual property rights indemnification claim against us or our customers, we may incur significant legal expenses and may have to pay damages, settlement fees, license fees and/or stop using technology found to be in violation of the third-party's rights. Large indemnity payments could harm our business, results of operations and financial condition. We may also have to seek a license for the infringing or allegedly infringing technology. Such license may not be available on reasonable terms, if at all, and may significantly increase our operating expenses or may require us to restrict our business activities and limit our ability to deploy certain offerings. As a result, we may also be required to develop alternative non-infringing technology, which could require significant effort and expense and/or cause us to alter our platform, solutions or solution packages, which could negatively affect our business. In addition, we may be subject to increased risk of infringement claims as a result of our use of open source software given that our agreements with our customers generally do not exclude open source software from the intellectual property indemnity we contractually agree to provide for our offerings.

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

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

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

We are subject to numerous obligations in our contracts with our customers and strategic partners. Despite the procedures, systems and internal controls we have implemented to comply with our contracts, we may breach these commitments, whether through a weakness in these procedures, systems and internal controls, negligence or the willful act of an employee or contractor.

Our insurance policies, including our errors and omissions insurance, may be inadequate to compensate us for the potentially significant losses that may result from claims arising from breaches of our contracts, disruptions in our services, including those caused by cybersecurity incidents, failures or disruptions to our infrastructure, catastrophic events and disasters or otherwise. In addition, such insurance may not be available to us in the future on economically reasonable terms, or at all. Further, our insurance may not cover all claims made against us and defending a suit, regardless of its merit, could be costly and divert management's attention.

***Our customers may fail to pay us in accordance with the terms of their agreements, necessitating action by us to compel payment.***

If customers fail to pay us under the terms of our agreements, we may be adversely affected both from the inability to collect amounts due and the cost of enforcing the terms of our contracts, including related litigation.

Furthermore, some of our customers may seek bankruptcy protection or other similar relief and fail to pay amounts due to us, or pay those amounts more slowly, either of which could adversely affect our business, results of operations and financial condition.

***Because our long-term success depends, in part, on our ability to expand the sales of our solutions and solution packages to customers located outside of the United States, our business will be susceptible to risks associated with international operations.***

We currently have international operations in the United Kingdom, Canada, Australia, France, Germany, India, Israel, the Netherlands and Switzerland. For the year ended December 31, 2019, our international revenue was 22% of our total revenue. Any efforts that we may undertake to increase our international revenue may not be successful. In addition, continuing to expand our international footprint with our solutions and solution packages subjects us to new risks, some of which we have not generally faced in the United States. These risks include, among other things:

- unexpected costs and errors in the localization of our solutions and solution packages, including translation into foreign languages and adaptation for local practices and regulatory requirements;
- difficulties in developing and executing an effective go-to-market strategy in various locations;
- lack of familiarity and burdens of complying with foreign laws, legal standards, privacy standards, regulatory requirements, tariffs and other barriers;
- laws and business practices favoring local competitors or commercial parties;
- costs and liabilities related to compliance with foreign privacy, data protection and information security laws and regulations, including the GDPR, and the risks and costs of noncompliance;
- greater risk of a failure of foreign employees, partners, distributors and resellers to comply with both U.S. and foreign laws, including antitrust regulations, anti-bribery laws, export and import control laws, and any applicable trade regulations ensuring fair trade practices;
- practical difficulties of enforcing intellectual property rights in countries with fluctuating laws and standards and reduced or varied protection for intellectual property rights in some countries, and specific legal requirements in certain countries that might place us at a greater risk of our technologies being subject to reverse engineering or copying;
- unexpected changes in global, economic and political landscapes;
- unexpected changes in regulatory requirements, taxes, trade laws, tariffs, export quotas, custom duties or other trade restrictions;
- difficulties in managing system integrators and technology partners;
- differing technology standards;
- longer accounts receivable payment cycles and difficulties in collecting accounts receivable;
- difficulties in managing and staffing international operations and differing employer/employee relationships and local employment laws;
- political unrest, war, or terrorism, or regional natural disasters, particularly in areas in which we have facilities;

- fluctuations in exchange rates that may increase the volatility of our foreign-based revenue; and
- potentially adverse tax consequences, including the complexities of foreign value added tax (or other tax) systems and restrictions on the repatriation of earnings.

Additionally, operating in international markets also requires significant management attention and financial resources. We cannot be certain that the investment and additional resources required in establishing operations in other countries will produce desired levels of revenue or profitability.

In addition, some of our business functions, such as research and development, may be siloed geographically, which may adversely affect the integration of our operations on a global scale.

We have limited experience in marketing, selling and supporting our platform abroad. Our limited experience in operating our business internationally increases the risk that any potential future expansion efforts that we may undertake will not be successful. If we invest substantial time and resources to increase our international revenue and are unable to do so successfully and in a timely manner, our business and results of operations will suffer.

***We may face exposure to foreign currency exchange rate fluctuations.***

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

***Exposure to political developments in the United Kingdom, including the exit from the EU, could harm us.***

Following the result of a referendum in 2016, the United Kingdom (the “U.K.”) left the EU on January 31, 2020, commonly referred to as Brexit. Pursuant to the formal withdrawal arrangements agreed between the U.K. and EU, the U.K. will be subject to a transition period until December 31, 2020 (the “Transition Period”), during which EU rules will continue to apply. Negotiations between the U.K. and the EU are expected to continue in relation to the customs and trading relationship between the U.K. and the EU following the expiration of the Transition Period.

The uncertainty concerning the U.K.’s legal, political and economic relationship with the EU after the Transition Period may be a source of instability in the international markets, create significant currency fluctuations, and/or otherwise adversely affect trading agreements or similar cross-border co-operation arrangements (whether economic, tax, fiscal, legal, regulatory or otherwise). We may also face new regulatory costs and challenges as a result of Brexit (including potentially divergent national laws and regulations between the U.K. and EU) that could have an adverse effect on our operations. For example, the U.K. could lose the benefits of global trade agreements negotiated by the EU on behalf of its members, which may result in increased trade barriers that could make our doing business in the EU and the European Economic Area more difficult.

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

Our corporate structure and associated transfer pricing policies anticipate future growth into the international markets. The amount of taxes we pay in different jurisdictions may depend on the application of the tax laws of the various jurisdictions, including the United States, to our international business activities, changes in tax

rates, new or revised tax laws or interpretations of existing tax laws and policies and our ability to operate our business in a manner consistent with our corporate structure and intercompany arrangements. The taxing authorities of the jurisdictions in which we operate may challenge our methodologies for pricing intercompany transactions, which are generally required to be computed on an arm's-length basis pursuant to intercompany arrangements or disagree with our determinations as to the income and expenses attributable to specific jurisdictions. If such a challenge or disagreement were to occur, and our position was not sustained, we could be required to pay additional taxes, interest and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows and lower overall profitability of our operations. Our financial statements could fail to reflect adequate reserves to cover such a contingency.

***Changes in tax laws or regulations in the various tax jurisdictions we are subject to that are applied adversely to us or our customers could increase the costs of our solutions and solution packages and harm our business.***

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time. Those enactments could harm our domestic and international business operations, and our business and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. These events could require us or our customers to pay additional tax amounts on a prospective or retroactive basis, as well as require us or our customers to pay fines and/or penalties and interest for past amounts deemed to be due. If we raise our prices to offset the costs of these changes, existing and potential future customers may elect not to purchase our solutions and/or solution packages in the future. Additionally, new, changed, modified or newly interpreted or applied tax laws could increase our customers' and our compliance, operating and other costs, as well as the costs of our solutions and solution packages. Further, these events could decrease the capital we have available to operate our business. Any or all of these events could harm our business and financial performance.

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

On December 22, 2017, tax reform legislation known as the Tax Cuts and Jobs Act (the "Tax Act") was enacted in the United States. The Tax Act, among other things, included changes to U.S. federal tax rates, imposed significant additional limitations on the deductibility of interest and net operating loss carryforwards and allowed for the expensing of capital expenditures. Accounting for the income tax effects of the Tax Act and subsequent guidance issued required complex new calculations to be performed and significant judgments in interpreting the legislation. Additional guidance may be issued on how the provisions of the Tax Act will be applied or otherwise administered that is different from our interpretation, which could result in adjustments to the income tax effects of the Tax Act that we have recorded at December 31, 2019. These adjustments could have a negative impact on our business and financial condition.

***If we cannot maintain our corporate culture as we grow, our business may be harmed.***

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

***As a result of becoming a public company in September 2019, we are obligated to develop and maintain proper and effective internal control over financial reporting in order to comply with Section 404 of the Sarbanes-Oxley Act. We may not complete our analysis of our internal control over financial reporting in a timely manner, or these internal controls may not be determined to be effective, which may adversely affect investor confidence in us and, as a result, the value of our common stock.***

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance

regarding the reliability of financial reporting and the preparation of financial statements in accordance with GAAP. We are in the very early stages of the costly and challenging process of compiling the system and processing documentation necessary to perform the evaluation needed to comply with Section 404 of the Sarbanes-Oxley Act. We may not be able to complete our evaluation, testing and any required remediation in a timely fashion. If we are unable to assert that our internal control over financial reporting is effective, we could lose investor confidence in the accuracy and completeness of our financial reports, which would cause the price of our common stock to decline, and we may be subject to investigation or sanctions by the SEC.

We will be 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 as of the end of the fiscal year that coincides with the filing of our second annual report on Form 10-K. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. We are required to disclose changes made in our internal control and procedures on a quarterly basis. However, our independent registered public accounting firm will not be required to report on the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act until the later of the year following our first annual report required to be filed with the SEC, or the date we are no longer an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”) if we take advantage of the exemptions contained in the JOBS Act. At such time, our independent registered public accounting firm may issue a report that is adverse in the event, in their opinion, that we have not maintained, in all material respects, effective internal control over financial reporting based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”).

Additionally, the existence of any material weakness or significant deficiency would require management to devote significant time and incur significant expense to remediate any such material weaknesses or significant deficiencies and management may not be able to remediate any such material weaknesses or significant deficiencies in a timely manner. The existence of any material weakness in our internal control over financial reporting could also result in errors in our financial statements that could require us to restate our financial statements, cause us to fail to meet our reporting obligations and cause shareholders to lose confidence in our reported financial information, all of which could materially and adversely affect our business and stock price. To comply with the requirements of being a public company, we may need to undertake various costly and time-consuming actions, such as implementing new internal controls and procedures and hiring accounting or internal audit staff, which may adversely affect our business, financial condition and results of operations.

As was previously disclosed in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, we reported a material weakness in controls related to the quarterly accounting for income taxes. During the year ended December 31, 2019, we completed the remediation measures related to our previously reported material weakness. However, completion of remediation does not provide assurance that our remediated controls will continue to operate properly or that our financial statements will be free from error.

***Our management team has limited experience managing a public company.***

Most members of our management team have limited experience managing a publicly traded company, interacting with public company investors, and complying with the increasingly complex laws pertaining to public companies. Our management team may not successfully or efficiently manage us as a public company that is subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These new obligations and constituents require significant attention from our senior management and could divert their attention away from the day to day management of our business, which could adversely affect our business, results of operations and financial condition.

***We face risks associated with having operations and employees located in Israel.***

We have an office and employees located in Israel. As a result, political, economic, and military conditions in Israel directly affect our operations. The future of peace efforts between Israel and its Arab neighbors remains uncertain. There has been a significant increase in hostilities and political unrest between Hamas and Israel in

the past few years. The effects of these hostilities and violence on the Israeli economy and our operations in Israel are unclear, and we cannot predict the effect on us of further increases in these hostilities or future armed conflict, political instability or violence in the region. Current or future tensions and conflicts in the Middle East could adversely affect our business, operating results, financial condition and cash flows.

In addition, many of our employees in Israel are obligated to perform annual reserve duty in the Israeli military and are subject to being called for active duty under emergency circumstances. We cannot predict the full impact of these conditions on us in the future, particularly if emergency circumstances or an escalation in the political situation occurs. If many of our employees in Israel are called for active duty for a significant period of time, our operations and our business could be disrupted and may not be able to function at full capacity. Any disruption in our operations in Israel could adversely affect our business.

***A portion of our revenue is generated by sales to government entities, which are subject to a number of challenges and risks, such as increased competitive pressures, administrative delays and additional approval requirements.***

A portion of our revenue is generated by sales to U.S. and foreign federal, state and local governmental agency customers, and we may in the future increase sales to government entities. Selling to government entities can be highly competitive, expensive and time consuming, often requiring significant upfront time and expense without any assurance that we will complete a sale or imposing terms of sale which are less favorable than the prevailing market terms. Government demand and payment for our solutions, solution packages and services may be impacted by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our solutions and solution packages. Governments routinely investigate and audit government contractors' administrative processes and any unfavorable audit could result in fines, civil or criminal liability, further investigations, damage to our reputation and debarment from further government business.

***Catastrophic events may disrupt our business.***

Natural disasters, pandemics or other catastrophic events may cause damage or disruption to our operations, international commerce and the global economy, and thus could harm our business. In the event of a major earthquake, hurricane or catastrophic event such as fire, power loss, telecommunications failure, cyberattack, pandemic, war or terrorist attack, we may be unable to continue our operations and may endure system interruptions, reputational harm, delays in our application development, lengthy interruptions in our solutions, breaches of data security and loss of critical data, all of which could adversely affect our business, results of operations and financial condition. In addition, the insurance we maintain may not be adequate to cover our losses resulting from disasters or other business interruptions.

***The emerging Coronavirus outbreak may have a negative impact on worldwide economic activity and our business.***

The recent outbreak in China of the Coronavirus Disease 2019 ("COVID-19"), which has been declared by the World Health Organization to be a "public health emergency of international concern," has spread across the globe and is impacting worldwide economic activity and financial markets. COVID-19 may disrupt our operations and the operations of our suppliers, customers, channel partners and system integrators and other business partners for an indefinite period of time, including as a result of travel restrictions and/or business shutdowns. For example, travel restrictions at our channel partners and system integrators may result in lengthier sales cycles. This is a rapidly evolving situation and the impact of COVID-19 on the global economy and our business is uncertain at this time. While it is not possible at this time to estimate the impact that COVID-19 could have on worldwide economic activity and our business, the continued spread of COVID-19 and the measures taken by the governments, businesses and other organizations in response to COVID-19 could adversely impact our business, financial condition or results of operations.

## **Risks Relating to Our Indebtedness**

### ***Our existing indebtedness could adversely affect our business and growth prospects.***

As of December 31, 2019, we had total current and long-term indebtedness outstanding of \$52.9 million, including \$52.2 million outstanding under our current revolving credit facility (the “2019 Revolving Credit Facility”) and \$0.7 million of outstanding letters of credit. On December 12, 2019, we repaid all outstanding borrowings under our then existing term loan facility (our “2018 Term Loan Facility”) and our then existing revolving credit facility (our “2018 Revolving Credit Facility,” and together with the 2018 Term Loan Facility, our “2018 Credit Facilities”) and in connection therewith we entered into a new credit agreement (the “2019 Credit Agreement”) providing for the 2019 Revolving Credit Facility with an initial \$150.0 million in commitments for revolving loans. In addition, the 2019 Credit Agreement provides us with the ability to request incremental term loan facilities (our “2019 Term Loan Facility” and, together with the 2019 Revolving Credit Facility, our “2019 Credit Facilities”) in a minimum amount of \$10 million for each facility, subject to certain conditions. All obligations under the 2019 Credit Agreement are secured by first priority perfected security interests in substantially all of our assets and the assets of our subsidiaries, subject to permitted liens and other exceptions. Our indebtedness, or any additional indebtedness we may incur, could require us to divert funds identified for other purposes for debt service and impair our liquidity position. If we cannot generate sufficient cash flow from operations to service our debt, we may need to refinance our debt, dispose of assets or issue equity to obtain necessary funds. We do not know whether we will be able to take any of these actions on a timely basis, on terms satisfactory to us or at all.

Our indebtedness, the cash flow needed to satisfy our debt and the covenants contained in our 2019 Credit Agreement have important consequences, including:

- limiting funds otherwise available for financing our capital expenditures by requiring us to dedicate a portion of our cash flows from operations to the repayment of debt and the interest on this debt;
- limiting our ability to incur additional indebtedness;
- limiting our ability to capitalize on significant business opportunities;
- making us more vulnerable to rising interest rates; and
- making us more vulnerable in the event of a downturn in our business.

Our level of indebtedness may place us at a competitive disadvantage to our competitors that are not as highly leveraged. Fluctuations in interest rates can increase borrowing costs. Increases in interest rates may directly impact the amount of interest we are required to pay and reduce earnings accordingly. In addition, developments in tax policy, such as the disallowance of tax deductions for interest paid on outstanding indebtedness, could have an adverse effect on our liquidity and our business, financial conditions and results of operations. Further, our 2019 Credit Agreement contains customary affirmative and negative covenants and certain restrictions on operations that could impose operating and financial limitations and restrictions on us, including restrictions on our ability to enter into particular transactions and to engage in other actions that we may believe are advisable or necessary for our business.

We expect to use cash flow from operations to meet current and future financial obligations, including funding our operations, debt service requirements and capital expenditures. The ability to make these payments depends on our financial and operating performance, which is subject to prevailing economic, industry and competitive conditions and to certain financial, business, economic and other factors beyond our control.



***Despite current indebtedness levels and restrictive covenants, we may still be able to incur substantially more indebtedness or make certain restricted payments, which could further exacerbate the risks associated with our substantial indebtedness.***

We may be able to incur significant additional indebtedness in the future. Although the financing documents governing our 2019 Credit Facilities contain restrictions on the incurrence of additional indebtedness and liens, these restrictions are subject to a number of important qualifications and exceptions, and the additional indebtedness and liens incurred in compliance with these restrictions could be substantial.

The financing documents governing our 2019 Credit Facilities permit us to incur certain additional indebtedness, including liabilities that do not constitute indebtedness as defined in the financing documents. We may also consider investments in joint ventures or acquisitions, which may increase our indebtedness. In addition, financing documents governing our 2019 Credit Facilities do not restrict Vista from creating new holding companies that may be able to incur indebtedness without regard to the restrictions set forth in the financing documents governing our 2019 Credit Facilities. If new debt is added to our currently anticipated indebtedness levels, the related risks that we face could intensify.

***We may not be able to generate sufficient cash flow to service all of our indebtedness, and may be forced to take other actions to satisfy our obligations under such indebtedness, which may not be successful.***

Our ability to make scheduled payments or to refinance outstanding debt obligations depends on our financial and operating performance, which will be affected by prevailing economic, industry and competitive conditions and by financial, business and other factors beyond our control. We may not be able to maintain a sufficient level of cash flow from operating activities to permit us to pay the principal, fees, premium, if any, and interest on the our indebtedness. Any failure to make payments of interest and principal on our outstanding indebtedness on a timely basis would likely result in a reduction of our credit rating, which would also harm our ability to incur additional indebtedness.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay capital expenditures, sell assets, seek additional capital or seek to restructure or refinance our indebtedness. Any refinancing of our indebtedness could be at higher interest rates and may require us to comply with more onerous covenants. These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations. In the absence of such cash flows and resources, we could face substantial liquidity problems and might be required to sell material assets or operations to attempt to meet our debt service obligations. The financing documents governing our 2019 Credit Facilities restrict our ability to conduct asset sales and/or use the proceeds from asset sales. We may not be able to consummate these asset sales to raise capital or sell assets at prices and on terms that we believe are fair and any proceeds that we do receive may not be adequate to meet any debt service obligations then due. If we cannot meet our debt service obligations, the holders of our indebtedness may accelerate such indebtedness and, to the extent such indebtedness is secured, foreclose on our assets. In such an event, we may not have sufficient assets to repay all of our indebtedness.

***The terms of the financing documents governing our 2019 Credit Facilities restrict our current and future operations, particularly our ability to respond to changes or to take certain actions.***

The financing documents governing our 2019 Credit Facilities contain a number of restrictive covenants that impose significant operating and financial restrictions on us and may limit our ability to engage in acts that may be in our long-term best interests, including restrictions on our ability to:

- incur additional indebtedness;
- pay dividends on or make distributions in respect of capital stock or repurchase or redeem capital stock;

- prepay, redeem or repurchase certain indebtedness;
- make loans and investments;
- sell or otherwise dispose of assets, including capital stock of restricted subsidiaries;
- incur liens;
- enter into transactions with affiliates; and
- consolidate, merge or sell all or substantially all of our assets.

The restrictive covenants in the financing documents governing our 2019 Credit Facilities require us to maintain specified financial ratios and satisfy other financial condition tests to the extent applicable. Our ability to meet those financial ratios and tests can be affected by events beyond our control.

A breach of the covenants or restrictions under the financing documents governing our 2019 Credit Facilities could result in an event of default under such documents. Such a default may allow the creditors to accelerate the related debt, which may result in the acceleration of any other debt to which a cross-acceleration or cross-default provision applies. In the event the holders of our indebtedness accelerate the repayment, we may not have sufficient assets to repay that indebtedness or be able to borrow sufficient funds to refinance it. Even if we are able to obtain new financing, it may not be on commercially reasonable terms or on terms acceptable to us. As a result of these restrictions, we may be:

- limited in how we conduct our business;
- unable to raise additional debt or equity financing to operate during general economic or business downturns; or
- unable to compete effectively or to take advantage of new business opportunities.

These restrictions, along with restrictions that may be contained in agreements evidencing or governing other future indebtedness, may affect our ability to grow in accordance with our growth strategy.

***We may be unable to refinance our indebtedness.***

We may need to refinance all or a portion of our indebtedness before maturity. We cannot assure you that we will be able to refinance any of our indebtedness on commercially reasonable terms or at all. There can be no assurance that we will be able to obtain sufficient funds to enable us to repay or refinance our debt obligations on commercially reasonable terms, or at all.

***A lowering or withdrawal of the ratings assigned to our debt securities by rating agencies may increase our future borrowing costs and reduce our access to capital.***

Our debt currently has a non-investment grade rating, and any rating assigned could be lowered or withdrawn entirely by a rating agency if, in that rating agency's judgment, future circumstances relating to the basis of the rating, such as adverse changes, so warrant. Any future lowering of our ratings likely would make it more difficult or more expensive for us to obtain additional debt financing.

***Our failure to raise additional capital or generate cash flows necessary to expand our operations and invest in new technologies in the future could reduce our ability to compete successfully and harm our results of operations.***

We may need to raise additional funds, and we may not be able to obtain additional debt or equity financing on favorable terms or at all. If we raise additional equity financing, our security holders may experience significant

dilution of their ownership interests. If we engage in additional debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, force us to maintain specified liquidity or other ratios or restrict our ability to pay dividends or make acquisitions. If we need additional capital and cannot raise it on acceptable terms, or at all, we may not be able to, among other things:

- develop and enhance our solutions and solution packages;
- continue to expand our solution and solution package development, sales and marketing organizations;
- hire, train and retain employees;
- respond to competitive pressures or unanticipated working capital requirements; or
- pursue acquisition opportunities.

In addition, our 2019 Credit Facilities also limit our ability to incur additional debt and therefore we likely would have to amend our 2019 Credit Facilities or issue additional equity to raise capital. If we issue additional equity, your interest in us will be diluted.

### **Risks Relating to Our Common Stock**

#### ***Vista controls us, and its interests may conflict with ours or yours in the future.***

At December 31, 2019, Vista beneficially owned approximately 80% of our common stock, which means that, based on its percentage voting power held, Vista controlled the vote of all matters submitted to a vote of our board of directors (our “Board”) or shareholders, which enable it to control the election of the members of the Board and all other corporate decisions. In addition, our bylaws provide that Vista has the right to designate the Chairman of the Board for so long as Vista beneficially owns at least 30% or more of the voting power of the then outstanding shares of our capital stock then entitled to vote generally in the election of directors. Even when Vista ceases to own shares of our stock representing a majority of the total voting power, for so long as Vista continues to own a significant percentage of our stock, Vista will still be able to significantly influence the composition of our Board, including the right to designate the Chairman of our Board, and the approval of actions requiring shareholder approval. Accordingly, for such period of time, Vista will have significant influence with respect to our management, business plans and policies, including the appointment and removal of our officers, decisions on whether to raise future capital and amending our charter and bylaws, which govern the rights attached to our common stock. In particular, for so long as Vista continues to own a significant percentage of our stock, Vista will be able to cause or prevent a change of control of us or a change in the composition of our Board, including the selection of the Chairman of our Board, and could preclude any unsolicited acquisition of us. The concentration of ownership could deprive you of an opportunity to receive a premium for your shares of common stock as part of a sale of us and ultimately might affect the market price of our common stock.

In addition, in connection with our IPO, we entered into a Director Nomination Agreement with Vista that provides Vista the right to designate: (i) all of the nominees for election to our Board for so long as Vista beneficially owns 40% or more of the total number of shares of our common stock it owned on the date of our IPO; (ii) a number of directors (rounded up to the nearest whole number) equal to 40% of the total directors for so long as Vista beneficially owns at least 30% and less than 40% of the total number of shares of our common stock it owned on the date of our IPO; (iii) a number of directors (rounded up to the nearest whole number) equal to 30% of the total directors for so long as Vista beneficially owns at least 20% and less than 30% of the total number of shares of our common stock it owned on the date of our IPO; (iv) a number of directors (rounded up to the nearest whole number) equal to 20% of the total directors for so long as Vista beneficially owns at least 10% and less than 20% of the total number of shares of our common stock it owned on the date of our IPO; and (v) one director for so long as Vista beneficially owns at least 5% and less than 10% of the total number of shares of our common stock it owned on the date of our IPO. The Director Nomination Agreement

also provides that Vista may assign such right to a Vista affiliate. The Director Nomination Agreement prohibits us from increasing or decreasing the size of our Board without the prior written consent of Vista.

Vista and its affiliates engage in a broad spectrum of activities, including investments in the information and business services industry generally. In the ordinary course of their business activities, Vista and its affiliates may engage in activities where their interests conflict with our interests or those of our other shareholders, such as investing in or advising businesses that directly or indirectly compete with certain portions of our business or are suppliers or customers of ours. Our certificate of incorporation provides that none of Vista, any of its affiliates or any director who is not employed by us (including any non-employee director who serves as one of our officers in both his director and officer capacities) or its affiliates has any duty to refrain from engaging, directly or indirectly, in the same business activities or similar business activities or lines of business in which we operate. Vista also may pursue acquisition opportunities that may be complementary to our business, and, as a result, those acquisition opportunities may not be available to us. In addition, Vista may have an interest in pursuing acquisitions, divestitures and other transactions that, in its judgment, could enhance its investment, even though such transactions might involve risks to you.

***Upon listing of our shares on the NYSE, we became a “controlled company” within the meaning of the rules of the NYSE and, as a result, we qualify for, and currently rely on, exemptions from certain corporate governance requirements. You will not have the same protections as those afforded to stockholders of companies that are subject to such governance requirements.***

The Vista Funds control a majority of the voting power of our outstanding common stock. As a result, we are a “controlled company” within the meaning of the corporate governance standards of the NYSE. Under these rules, a company of which more than 50% of the voting power for the election of directors is held by an individual, group or another company is a “controlled company” and may elect not to comply with certain corporate governance requirements, including:

- the requirement that a majority of our Board consist of independent directors;
- the requirement that we have a nominating and corporate governance committee that is composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities;
- the requirement that we have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities; and
- the requirement for an annual performance evaluation of the nominating and corporate governance and compensation committees.

We intend to continue to utilize these exemptions. As a result, currently, we do not have a majority of independent directors on our Board, our Compensation and Nominating Committee does not consist entirely of independent directors and our Compensation and Nominating Committee is not subject to annual performance evaluations. Accordingly, you will not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of the NYSE.

***For so long as we are an “emerging growth company,” we will not be required to comply with certain public company reporting requirements, which could make our common stock less attractive to investors.***

We are an “emerging growth company,” as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we are eligible for certain exemptions from various public company reporting requirements. These exemptions include, but are not limited to, (i) not being required to comply with the auditor attestation requirements of Section 404 of Sarbanes-Oxley, (ii) reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements, (iii) exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder

approval of any golden parachute payments not previously approved and (iv) not being required to provide audited financial statements for the year ended December 31, 2016 in our final prospectus (the “IPO Prospectus”) for our IPO, dated as of September 18, 2019 and filed with the SEC pursuant to Rule 424(b)(4) under the Securities Act of 1933, as amended, or five years of Selected Consolidated Financial Data in our IPO Prospectus or this Annual Report on Form 10-K. We could be an emerging growth company for up to five years after the first sale of our common stock in our IPO, which fifth anniversary will occur in 2024. However, if certain events occur prior to the end of such five-year period, including if we become a “large accelerated filer,” our annual gross revenue exceeds \$1.07 billion or we issue more than \$1.0 billion of non-convertible debt in any three-year period, we would cease to be an emerging growth company prior to the end of such five-year period. We made certain elections with regard to the reduced disclosure obligations regarding executive compensation in our IPO Prospectus and may elect to take advantage of other reduced disclosure obligations in future filings. As a result, the information that we provide to holders of our common stock may be different than you might receive from other public reporting companies in which you hold equity interests. We cannot predict if investors will find our common stock less attractive as a result of our reliance on these exemptions. If some investors find our common stock less attractive as a result of any choice we make to reduce disclosure, there may be a less active trading market for our common stock and the market price for our common stock may be more volatile.

Under the JOBS Act, emerging growth companies may also elect to delay adoption of new or revised accounting standards until such time as those standards apply to private companies. We have elected to “opt-in” to this extended transition period for complying with new or revised accounting standards and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that comply with such new or revised accounting standards on a non-delayed basis.

***The requirements of being a public company may strain our resources and distract our management, which could make it difficult to manage our business, particularly after we are no longer an “emerging growth company.”***

As a public company, we incur legal, accounting and other expenses that we did not previously incur. We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and the Sarbanes-Oxley Act, the listing requirements of the NYSE and other applicable securities rules and regulations. Compliance with these rules and regulations will continue to increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources, particularly after we are no longer an “emerging growth company.” The Exchange Act requires that we file annual, quarterly and current reports with respect to our business, financial condition and results of operations. The Sarbanes-Oxley Act requires, among other things, that we establish and maintain effective internal controls and procedures for financial reporting. Furthermore, the need to establish the corporate infrastructure demanded of a public company may divert our management’s attention from implementing our growth strategy, which could prevent us from improving our business, financial condition and results of operations. We have made, and will continue to make, changes to our internal controls and procedures for financial reporting and accounting systems to meet our reporting obligations as a public company. However, the measures we take may not be sufficient to satisfy our obligations as a public company. In addition, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur substantial costs to maintain the same or similar coverage. These additional obligations could have a material adverse effect on our business, financial condition and results of operations.

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

laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and could have a material adversely effect on our business, financial condition and results of operations.

***Provisions of our corporate governance documents could make an acquisition of us more difficult and may prevent attempts by our shareholders to replace or remove our current management, even if beneficial to our shareholders.***

In addition to Vista's beneficial ownership of 80% of our common stock as of December 31, 2019, our certificate of incorporation and bylaws and the Delaware General Corporation Law (the "DGCL") contain provisions that could make it more difficult for a third party to acquire us, even if doing so might be beneficial to our shareholders. Among other things:

- these provisions allow us to authorize the issuance of undesignated preferred stock, the terms of which may be established and the shares of which may be issued without shareholder approval, and which may include supermajority voting, special approval, dividend, or other rights or preferences superior to the rights of shareholders;
- these provisions provide for a classified board of directors with staggered three-year terms;
- these provisions provide that, at any time when Vista beneficially owns, in the aggregate, less than 40% in voting power of the our stock entitled to vote generally in the election of directors, directors may only be removed for cause, and only by the affirmative vote of holders of at least  $66\frac{2}{3}\%$  in voting power of all the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class;
- these provisions prohibit shareholder action by written consent from and after the date on which Vista beneficially owns, in the aggregate, less than 35% in voting power of our stock entitled to vote generally in the election of directors;
- these provisions provide that for as long as Vista beneficially owns, in the aggregate, at least 50% in voting power of our stock entitled to vote generally in the election of directors, any amendment, alteration, rescission or repeal of our bylaws by our shareholders will require the affirmative vote of a majority in voting power of the outstanding shares of our stock and at any time when Vista beneficially owns, in the aggregate, less than 50% in voting power of all outstanding shares of our stock entitled to vote generally in the election of directors, any amendment, alteration, rescission or repeal of our bylaws by our shareholders will require the affirmative vote of the holders of at least  $66\frac{2}{3}\%$  in voting power of all the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class; and
- these provisions establish advance notice requirements for nominations for elections to our Board or for proposing matters that can be acted upon by shareholders at shareholder meetings; provided, however, at any time when Vista beneficially owns, in the aggregate, at least 10% in voting power of our stock entitled to vote generally in the election of directors, such advance notice procedure will not apply to it.

Our certificate of incorporation contains a provision that provides us with protections similar to Section 203 of the DGCL and prevents us from engaging in a business combination with a person (excluding Vista and any of its direct or indirect transferees and any group as to which such persons are a party) who acquires at least 15% of our common stock for a period of three years from the date such person acquired such common stock, unless Board or shareholder approval is obtained prior to the acquisition. These provisions could discourage, delay or prevent a transaction involving a change in control of our company. These provisions could also discourage proxy contests and make it more difficult for you and other shareholders to elect directors of your choosing and cause us to take other corporate actions you desire, including actions that you may deem advantageous, or negatively affect the trading price of our common stock. In addition, because our Board is responsible for

appointing the members of our management team, these provisions could in turn affect any attempt by our shareholders to replace current members of our management team.

These and other provisions in our certificate of incorporation, bylaws and Delaware law could make it more difficult for shareholders or potential acquirers to obtain control of our Board or initiate actions that are opposed by our then-current Board, including delay or impede a merger, tender offer or proxy contest involving our company. The existence of these provisions could negatively affect the price of our common stock and limit opportunities for you to realize value in a corporate transaction.

***Our certificate of incorporation designates the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation that may be initiated by our shareholders, which could limit our shareholders' ability to obtain a favorable judicial forum for disputes with us.***

Pursuant to our 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 (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 shareholders, (3) any action asserting a claim against us arising pursuant to any provision of the DGCL, our certificate of incorporation or our bylaws or (4) any other action asserting a claim against us that is governed by the internal affairs doctrine; provided that for the avoidance of doubt, the forum selection provision that identifies the Court of Chancery of the State of Delaware as the exclusive forum for certain litigation, including any "derivative action," will not apply to suits to enforce a duty or liability created by Securities Act, the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Our certificate of incorporation further provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to the provisions of our certificate of incorporation described above. The forum selection clause in our certificate of incorporation may have the effect of discouraging lawsuits against us or our directors and officers and may limit our shareholders' ability to obtain a favorable judicial forum for disputes with us.

***An active, liquid trading market for our common stock may not develop, which may limit your ability to sell your shares.***

Our IPO occurred in September 2019. Therefore, there has been a public market for our common stock for a short period of time. Although we have listed our common stock on the NYSE under the symbol "PING," an active trading market for our common stock may not be sustained. A public trading market having the desirable characteristics of depth, liquidity and orderliness depends upon the existence of willing buyers and sellers at any given time, such existence being dependent upon the individual decisions of buyers and sellers over which neither we nor any market maker has control. The failure of an active and liquid trading market to develop and continue would likely have a material adverse effect on the value of our common stock. The market price of our common stock may decline below the public offering price, and you may not be able to sell your shares of our common stock at or above the price you paid in this offering, or at all. An inactive market may also impair our ability to raise capital to continue to fund operations by issuing shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

***Our operating results and stock price may be volatile, and the market price of our common stock may drop below the price you paid.***

Our quarterly operating results are likely to fluctuate in the future. In addition, securities markets worldwide have experienced, and are likely to continue to experience, significant price and volume fluctuations. This market volatility, as well as general economic, market or political conditions, could subject the market price of our shares to wide price fluctuations regardless of our operating performance. Our operating results and the trading price of our shares may fluctuate in response to various factors, including:

- market conditions in our industry or the broader stock market;
- actual or anticipated fluctuations in our quarterly financial and operating results;

- introduction of new solutions, solution packages or services by us or our competitors;
- issuance of new or changed securities analysts' reports or recommendations;
- sales, or anticipated sales, of large blocks of our stock;
- additions or departures of key personnel;
- regulatory or political developments;
- litigation and governmental investigations;
- changing economic conditions;
- investors' perception of us;
- events beyond our control such as weather and war; and
- any default on our indebtedness.

These and other factors, many of which are beyond our control, may cause our operating results and the market price and demand for our shares to fluctuate substantially. Fluctuations in our quarterly operating results could limit or prevent investors from readily selling their shares and may otherwise negatively affect the market price and liquidity of our shares. In addition, in the past, when the market price of a stock has been volatile, holders of that stock have sometimes instituted securities class action litigation against the company that issued the stock. If any of our shareholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. Such a lawsuit could also divert the time and attention of our management from our business, which could significantly harm our profitability and reputation.

***A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.***

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. Following our IPO, shares that were not sold in the offering are subject to a 180-day lock-up period provided under lock-up agreements executed in connection with the offering and restricted from immediate resale under the federal securities laws. All of these shares will, however, be able to be resold after the expiration of the lock-up period, as well as pursuant to customary exceptions thereto or upon the waiver of the lock-up agreement by Goldman Sachs & Co. LLC on behalf of the underwriters for our IPO. We have registered shares of common stock that we may issue under our equity compensation plans. Such shares can be freely sold in the public market upon issuance, subject to the lock-up agreements. As restrictions on resale end, the market price of our stock could decline if the holders of currently restricted shares sell them or are perceived by the market as intending to sell them.

***Because we have no current plans to pay regular cash dividends on our common stock for the foreseeable future, you may not receive any return on investment unless you sell your common stock for a price greater than that which you paid for it.***

We do not anticipate paying any regular cash dividends on our common stock for the foreseeable future. Any decision to declare and pay dividends in the future will be made at the discretion of our Board and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that our Board may deem relevant. In addition, our ability to pay dividends is, and may be, limited by covenants of existing and any future outstanding indebtedness we or our subsidiaries incur, including under our 2019 Credit Facilities. Therefore, any return on investment in our common stock is solely dependent upon the appreciation of the price of our common stock on the open market, which may not occur.



***If securities or industry analysts do not publish research or reports about our business, if they adversely change their recommendations regarding our shares or if our results of operations do not meet their expectations, our stock price and trading volume could decline.***

The trading market for our shares is influenced by the research and reports that industry or securities analysts publish about us or our business. We do not have any control over these analysts. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline. Moreover, if one or more of the analysts who cover us downgrade our stock, or if our results of operations do not meet their expectations, our stock price could decline.

***We may issue shares of preferred stock in the future, which could make it difficult for another company to acquire us or could otherwise adversely affect holders of our common stock, which could depress the price of our common stock.***

Our certificate of incorporation authorizes us to issue one or more series of preferred stock. Our Board has the authority to determine the preferences, limitations and relative rights of the shares of preferred stock and to fix the number of shares constituting any series and the designation of such series, without any further vote or action by our shareholders. Our preferred stock could be issued with voting, liquidation, dividend and other rights superior to the rights of our common stock. The potential issuance of preferred stock may delay or prevent a change in control of us, discouraging bids for our common stock at a premium to the market price, and materially adversely affect the market price and the voting and other rights of the holders of our common stock.

#### **Item 1B. Unresolved Staff Comments**

Not applicable.

#### **Item 2. Properties**

Our corporate headquarters are in Denver, Colorado, where we lease 108,761 square feet of office space as of December 31, 2019. We also have domestic offices in Boston, Massachusetts, Austin, Texas and San Francisco, California and international offices in the United Kingdom, Australia, Canada, India, Israel, France, the Netherlands and Switzerland.

We lease all of our facilities. We believe that our facilities are adequate for our current needs and anticipate that suitable additional space will be readily available to accommodate any foreseeable expansion of our operations.

#### **Item 3. Legal Proceedings**

From time to time, we are involved in various claims and legal actions that arise in the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, we do not believe that the ultimate resolution of these actions will have a material adverse effect on our financial position, results of operations, liquidity and capital resources.

Future litigation may be necessary to defend ourselves and our partners by determining the scope, enforceability and validity of third-party proprietary rights or to establish our proprietary rights. The results of any current or future litigation cannot be predicted with certainty, and regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

#### **Item 4. Mine Safety Disclosure**

None.

## **PART II.**

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

#### **Market Information for Our Common Stock**

Our common stock, \$0.001 par value per share, began trading on the NYSE under the symbol "PING" on September 18, 2019. Prior to that time, there was no public market for our common stock. Shares sold in our IPO were priced at \$15.00 per share.

#### **Holders of Record**

As of December 31, 2019, there were 13 holders of record of our common stock. This figure does not include a greater number of beneficial holders of our common stock whose shares are held by banks, brokers and other financial institutions.

#### **Dividend Policy**

We have never declared or paid any cash dividends on our capital stock, and we do not currently intend to pay any cash dividends in the foreseeable future. We expect to retain future earnings, if any, to fund the development and growth of our business. Any decision to declare and pay dividends in the future will be made at the discretion of our Board and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that our Board may deem relevant. In addition, our ability to pay dividends is, and may be, limited by covenants of existing and any future outstanding indebtedness we or our subsidiaries incur, including under our 2019 Credit Facilities.

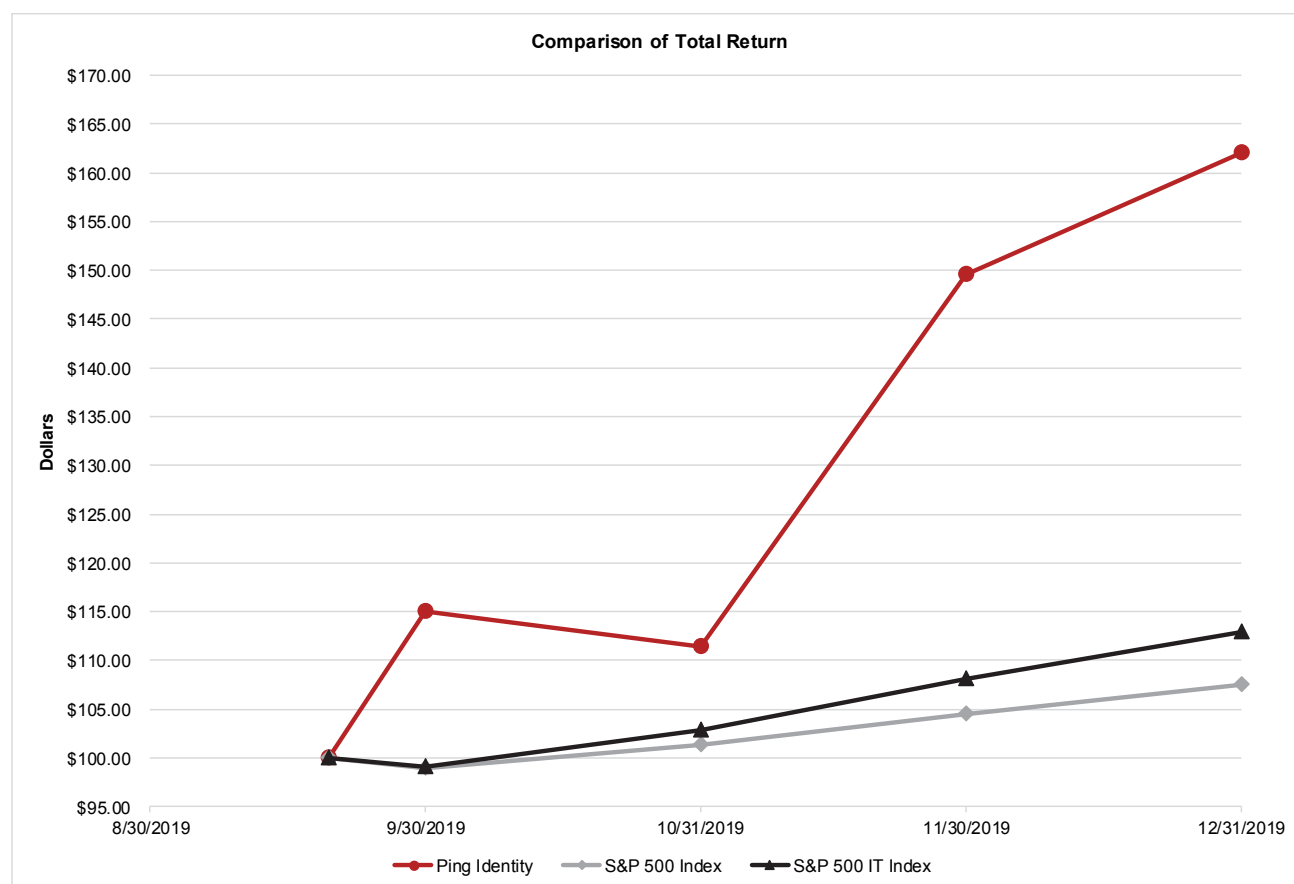
#### **Securities Authorized for Issuance under Equity Compensation Plans**

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

#### **Stock Performance Graph**

*The following performance graph and related information shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended, and shall not be incorporated by reference into any registration statement or other document filed by us with the SEC, whether made before or after the date of this Annual Report on Form 10-K, regardless of any general incorporation language in such filing, except as shall be expressly set forth by specific reference in such filing.*

The following graph and related information shows a comparison of the cumulative total return for our common stock, Standard & Poor's 500 Index ("S&P 500 Index") and Standard & Poor's 500 Information Technology Index ("S&P 500 IT Index") between September 19, 2019 (the date our common stock commenced trading on the NYSE) through December 31, 2019. All values assume an initial investment of \$100 and reinvestment of any dividends. The comparisons are based on historical data and are not indicative of, nor intended to forecast, the future performance of our common stock.



Company/Index	September 19, 2019	September 30, 2019	October 31, 2019	November 30, 2019	December 31, 2019
Ping Identity . . . . .	\$ 100.00	\$ 115.00	\$ 111.40	\$ 149.53	\$ 162.00
S&P 500 Index. . . . .	\$ 100.00	\$ 99.00	\$ 101.33	\$ 104.46	\$ 107.45
S&P 500 Information Technology Index .	\$ 100.00	\$ 99.09	\$ 102.87	\$ 108.18	\$ 112.96

## Recent Sales of Unregistered Securities and Use of Proceeds

### Unregistered Sales of Equity Securities

There were no unregistered sales of equity securities during the year ended December 31, 2019, except as previously reported.

### Use of Proceeds from Initial Public Offering of Common Stock

On September 23, 2019, we closed our IPO in which we sold 12,500,000 shares of common stock at a public offering price of \$15.00 per share. Additionally, we registered 1,875,000 shares of common stock in connection with the underwriters' overallotment option to purchase additional shares on the same terms and conditions. The underwriters' overallotment option was exercised in full and closed on October 22, 2019. The offer and sale of all of the shares in the IPO were registered under the Securities Act pursuant to a registration statement on Form S-1 (File No. 333-233421), which was declared effective by the SEC on September 18, 2019. The representatives of the several underwriters of the IPO were Goldman Sachs & Co. LLC and BofA Securities, Inc. The offering commenced on September 18, 2019 and did not terminate before all of the securities registered in the registration statement were sold.

We raised \$194.6 million in net proceeds after deducting underwriting discounts and commissions of \$15.1 million and offering expenses of \$5.9 million. There was no material change in the use of the IPO proceeds as described in the IPO Prospectus. On September 23, 2019, the net proceeds from the IPO were used to repay \$170.3 million of our 2018 Term Loan Facility, together with \$0.7 million of accrued interest. After the closing of the underwriters' option to purchase additional shares, we repaid an additional \$26.1 million of our 2018 Term Loan Facility, together with \$0.1 million of accrued interest.

In connection with our entry into the 2018 Term Loan Facility on January 25, 2018, affiliates of Vista collectively acquired \$35.0 million of term loans under our 2018 Term Loan Facility and immediately prior to the repayment on September 23, 2019, affiliates of Vista collectively owned \$34.7 million of our 2018 Term Loan Facility. Additionally, immediately prior to the repayment on October 22, 2019, affiliates of Vista collectively owned \$10.8 million of our 2018 Term Loan Facility. Accordingly, affiliates of Vista received \$27.5 million of the net proceeds from the IPO and the underwriters' exercise of the overallotment option in connection with the repayment of \$196.4 million of our 2018 Term Loan Facility.

***Issuer Purchases of Equity Securities***

None.

## Item 6. Selected Consolidated Financial Data

The following selected consolidated statements of operations data for the years ended December 31, 2019, 2018 and 2017 and the consolidated balance sheet data as of December 31, 2019 and 2018 have been derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results that may be expected in the future. You should read the selected consolidated financial data and other data below in conjunction with the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

	Year Ended December 31,		
	2019	2018	2017
	(in thousands, except per share amounts)		
<b>Consolidated Statements of Operations Data:</b>			
Revenue:			
Subscription	\$ 225,345	\$ 184,991	\$ 160,219
Professional services and other	17,553	16,571	12,320
Total revenue	242,898	201,562	172,539
Cost of revenue:			
Subscription (exclusive of amortization shown below) <sup>(1)</sup>	24,044	17,512	14,054
Professional services and other (exclusive of amortization shown below) <sup>(1)</sup>	15,322	12,703	9,155
Amortization expense	16,338	14,396	12,626
Total cost of revenue	55,704	44,611	35,835
Gross profit	187,194	156,951	136,704
Operating expenses:			
Sales and marketing <sup>(1)</sup>	78,889	60,140	49,481
Research and development <sup>(1)</sup>	46,016	36,229	26,215
General and administrative <sup>(1)</sup>	38,293	28,355	20,202
Depreciation and amortization	16,639	16,341	16,526
Total operating expenses	179,837	141,065	112,424
Income from operations	7,357	15,886	24,280
Other income (expense):			
Interest expense	(12,914)	(15,837)	(19,277)
Loss on extinguishment of debt	(4,532)	(9,785)	—
Other income (expense), net	363	(335)	773
Total other income (expense)	(17,083)	(25,957)	(18,504)
Income (loss) before income taxes	(9,726)	(10,071)	5,776
Benefit (provision) for income taxes	8,222	(3,375)	13,185
Net income (loss)	<u>\$ (1,504)</u>	<u>\$ (13,446)</u>	<u>\$ 18,961</u>
Per Share Data <sup>(2)</sup> :			
Net income (loss) per share:			
Basic	<u>\$ (0.02)</u>	<u>\$ (0.21)</u>	<u>\$ 0.29</u>
Diluted	<u>\$ (0.02)</u>	<u>\$ (0.21)</u>	<u>\$ 0.29</u>
Weighted-average shares used in computing net income (loss) per share:			
Basic	<u>68,906</u>	<u>65,002</u>	<u>64,984</u>
Diluted	<u>68,906</u>	<u>65,002</u>	<u>64,991</u>
<b>Consolidated Statements of Cash Flows Data:</b>			
Net cash provided by operating activities	\$ 5,795	\$ 22,886	\$ 3,423
Net cash used in investing activities	(19,756)	(26,661)	(5,961)
Net cash provided by (used in) financing activities	(2,020)	67,102	101

(1) Includes stock-based compensation as follows:

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
Subscription cost of revenue .....	\$ 141	\$ —	\$ —
Professional services and other cost of revenue .....	80	—	—
Sales and marketing .....	1,407	726	626
Research and development .....	1,364	342	297
General and administrative .....	3,340	1,780	1,601
Total .....	<u>\$ 6,332</u>	<u>\$ 2,848</u>	<u>\$ 2,524</u>

- (2) See Note 13 to our consolidated financial statements appearing in Part II, Item 8 of this Annual Report on Form 10-K for an explanation of the method used to calculate our basic and diluted net income (loss) per share and the weighted-average number of shares used in the computation of the per share amounts.

	December 31,		
	2019	2018	2017
		(in thousands)	
<b>Consolidated Balance Sheet Data:</b>			
Cash and cash equivalents .....	\$ 67,637	\$ 83,499	\$ 20,969
Working capital <sup>(1)</sup> .....	153,674	139,373	69,487
Total assets .....	872,811	857,023	776,223
Deferred revenue, current and noncurrent .....	47,507	35,367	33,810
Long-term debt, including current portion <sup>(2)</sup> .....	50,941	243,551	165,206
Total stockholders' equity .....	710,471	509,105	520,680

- (1) We define working capital as current assets less current liabilities.
- (2) Net of debt issuance costs of \$1.2 million, \$5.2 million and \$4.8 million as of December 31, 2019, 2018 and 2017, respectively.

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

*The following discussion and analysis summarizes the significant factors affecting the consolidated operating results, financial condition, liquidity and cash flows of our company as of and for the periods presented below. The following discussion and analysis should be read in conjunction with our consolidated financial statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K. The discussion contains forward-looking statements that are based on the beliefs of management, as well as assumptions made by, and information currently available to, our management. Actual results could differ materially from those discussed in or implied by forward-looking statements as a result of various factors, including those discussed below and elsewhere in this Annual Report on Form 10-K, particularly in the sections entitled "Risk Factors" and "Forward-Looking Statements."*

### **Overview**

Ping Identity is pioneering Intelligent Identity. We enable secure access to any service, application or API from any device. Our Intelligent Identity Platform can leverage AI and ML to analyze device, network, application and user behavior data to make real-time authentication and security control decisions, enhancing the user experience. Our platform is designed to detect anomalies and automatically insert additional security measures, such as multi-factor authentication, only when necessary. We built our platform to meet the requirements of the most demanding enterprises. Our platform can be deployed across cloud, hybrid and on-premise infrastructures and offers a comprehensive suite of turnkey integrations, and is able to scale to millions of identities and thousands of cloud and on-premise applications.

Our Intelligent Identity Platform can secure all primary use cases, including customer, workforce, partner and IoT. For example, enterprises can use our platform to enhance their customers' user experience by creating a single ID and login across web and mobile properties. For the year ended December 31, 2019, 42% of our subscription revenue was derived from the customer use case. Enterprises can also use our platform to provide their workforce and commercial partners with secure, seamless access from any device to the applications, data and APIs they need to be productive. Enterprises are increasingly using our platform to manage and authenticate identities in a variety of IoT devices, such as connected vehicles and consumer devices.

Our Intelligent Identity Platform is comprised of six solutions that can be purchased individually or as a set of integrated offerings for the customer, workforce, partner or IoT use case: SSO, MFA, Access Security, Directory, Data Governance and API Intelligence.

Our offerings are predominately priced based on the number of identities, solutions and use cases. We sell our platform through subscription-based contracts, and substantially all of our customers pay annually in advance. We sell our solutions primarily through direct sales, which are enhanced by collaboration with our channel partners, resellers, system integrators and technology partners and includes sourcing new leads, aiding in pre-sale processes such as proof of concepts, demos or requests for proposals and reselling our solutions to customers. We also leverage a number of our channel partners and system integrators to provide the implementation services for some of our larger and more complex deployments, significantly increasing the time-to-value for our customers and maximizing the efficiency of our go-to-market efforts.

### **Key Factors Affecting Our Performance**

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

#### ***Generate Additional Sales to Existing Customers***

As part of our land and expand strategy, a customer journey often begins with the purchase of one of our solutions for one use case. Once customers realize the value of that solution, their spend with us expands by (i) adopting another identity use case, (ii) deploying additional solutions and solution packages and/or (iii) adding more identities over time.

Our future revenue growth is dependent upon our ability to continue to expand our customers' use of our platform. Our ability to increase sales to existing customers will depend on a number of factors, including

satisfaction or dissatisfaction with our solutions, competition, pricing, economic conditions and spending by customers on our solutions. We have adopted a customer success strategy and implemented processes across our customer base to drive revenue retention and expansion.

### ***Increase the Size of our Customer Base***

We believe there is significant opportunity to increase market adoption of our platform by new customers. Our SSO, Access Security and Directory solutions often replace legacy and homegrown systems. We also have significant greenfield opportunities with our MFA, Data Governance, API Intelligence solutions and IoT. To increase our customer base, we plan to expand our sales force and channel partner network, both domestically and internationally, enhance our marketing efforts and target new buyers. For example, we have extended our cloud-based offering to target developers, who represent a new potential buyer for us. Over time, we believe sales to developers could increase the size of our customer base.

### ***Maintain our Technology Differentiation and Product Leadership***

Our Intelligent Identity Platform is designed for large enterprises with complex, hybrid IT requirements. We have spent over a decade building a standards-based platform with turnkey integrations designed to ensure that large enterprises can easily and rapidly deploy our platform within their complex infrastructures. We intend to continue making investments in research and development to extend our platform and technology capabilities while also expanding our solutions to address new use cases.

### ***Invest for Growth***

We believe that our market opportunity is large, and we plan to invest in order to continue to support further growth. This includes investing in our sales force and expanding our network of channel partners, resellers, system integrators and technology partners with which we partner to sell our Intelligent Identity Platform, both domestically and internationally. We have a large and growing international presence and intend to grow our customer base in various international regions by making investments in our sales team globally. For the year ended December 31, 2019, our international revenue was 22% of our total revenue. We expect international sales to be a meaningful revenue contributor in future periods.

During 2018, we made a decision with our Board to accelerate investments in our business to take advantage of our large market opportunity. Specifically, we invested in enhancing our salesforce globally to increase our selling capacity and capitalize on our large market opportunity. In addition, we have invested in new cloud-based offerings to broaden our Intelligent Identity Platform and the scope of our solutions to cover new identity security threats, such as APIs. We also invested in deploying our platform as a single tenant cloud-based offering, managed by us, to help extend the reach of our solutions within our customers' infrastructures, while providing them with the level of control and configuration they require. We have seen progress with these investments and expect to continue to invest heavily in these areas in the near future. However, we are not expecting these investments to provide our business with meaningful increases to ARR growth in the immediate term as we expect natural purchasing cycles will affect the speed of market adoption.

### ***Seasonality***

Given the purchasing patterns of our enterprise customers, we typically experience seasonality in terms of when we receive orders from our customers. Our customers often time their purchases and renewals of our solutions to coincide with their fiscal year end, which is typically June 30 or December 31. Because of these purchasing patterns, a greater percentage of our annual subscription revenue from term-based licenses, the revenue from which is recognized up front at the later of delivery or commencement of the license term, has come from our second and fourth quarters than from other quarters. For the year ended December 31, 2019, 26% and 28% of our annual revenue was in our second and fourth quarter, respectively. We believe this seasonality will continue to affect our quarterly results and may become more pronounced.



## Key Business Metrics

In addition to our GAAP financial information, we review a number of operating and financial metrics, including the following key metrics, to evaluate our business, measure our performance, identify trends affecting our business, formulate business plans and make strategic decisions.

### Annual Recurring Revenue

ARR represents the annualized value of all subscription contracts as of the end of the period. ARR mitigates fluctuations due to seasonality, contract term and the sales mix of subscriptions for term-based licenses and SaaS. ARR only includes the annualized value of subscription contracts. ARR does not have any standardized meaning and is therefore unlikely to be comparable to similarly titled measures presented by other companies. ARR should be viewed independently of revenue and deferred revenue and is not intended to be combined with or to replace either of those items. ARR is not a forecast and the active contracts at the end of a reporting period used in calculating ARR may or may not be extended or renewed by our customers.

The table below sets forth our ARR as of the end of December 31, 2019 and 2018.

	December 31,		Change	
	2019	2018	\$	%
			(dollars in thousands)	
ARR .....	\$ 224,888	\$ 183,579	\$ 41,309	23 %

### Dollar-Based Net Retention Rate

To further illustrate the land and expand economics of our customer relationships, we examine the rate at which our customers increase their subscriptions for our solutions. Our dollar-based net retention rate measures our ability to increase revenue across our existing customer base through expanded use of our platform, offset by customers whose subscription contracts with us are not renewed or renew at a lower amount.

We calculate our dollar-based net retention rate as of the end of a reporting period as follows:

- *Denominator.* We measure ARR as of the last day of the prior reporting period.
- *Numerator.* We measure ARR as of the last day of the current reporting period from customers with associated ARR as of the last day of the prior reporting period.

The quotient obtained from this calculation is our dollar-based net retention rate. Our dollar-based net retention rates were 115% and 116% at December 31, 2019 and 2018, respectively. We believe our ability to cross-sell our new solutions to our installed base, particularly MFA and API Intelligence, will continue to support our high dollar-based net retention rate.

### Large Customers

We believe that our ability to increase the number of customers on our platform, particularly the number of customers with greater than ARR of \$1,000,000 and ARR of \$250,000, demonstrates our focus on the large enterprise market and our penetration within those enterprises. Increasing awareness of our platform, further developing our sales and marketing expertise and channel partner ecosystem, and continuing to build solutions that address the unique identity needs of large enterprises have increased our number of large customers across industries. We believe there are significant upsell and cross-sell opportunities within our customer base by expanding the number of use cases, adding additional identities and selling new solutions.

At December 31, 2019, we had 38 customers with greater than \$1,000,000 in ARR, an increase of 52% from 25 customers at December 31, 2018. Additionally, our customers with ARR over \$250,000 increased from 202 at December 31, 2018 to 232 at December 31, 2019, representing a growth rate of 15%.

## Non-GAAP Financial Measures

In addition to our results determined in accordance with GAAP, we believe the following non-GAAP measures are useful in evaluating our operating performance. We believe that non-GAAP financial information, when taken collectively, may be helpful to investors because it provides consistency and comparability with past financial performance and assists in comparisons with other companies, some of which use similar non-GAAP financial information to supplement their GAAP results. The non-GAAP financial information is presented for supplemental informational purposes only, and should not be considered a substitute for financial information presented in accordance with GAAP, and may be different from similarly-titled non-GAAP measures used by other companies. A reconciliation is provided below for each non-GAAP financial measure to the most directly comparable financial measure stated in accordance with GAAP. Investors are encouraged to review the related GAAP financial measures and the reconciliation of these non-GAAP financial measures to their most directly comparable GAAP financial measures.

### **Free Cash Flow**

Free Cash Flow is a supplemental measure of liquidity that is not made under GAAP and that does not represent, and should not be considered as, an alternative to cash flow from operations, as determined by GAAP. We define Free Cash Flow as net cash provided by (used in) operating activities less cash used for purchases of property and equipment and capitalized software development costs.

We use Free Cash Flow as one measure of the liquidity of our business. We believe that Free Cash Flow is a useful indicator of liquidity that provides information to management and investors about the amount of cash generated from our core operations that, after the purchases of property and equipment and capitalized software development costs, can be used for strategic initiatives, including investing in our business and selectively pursuing acquisitions and strategic investments. We further believe that historical and future trends in Free Cash Flow, even if negative, provide useful information about the amount of cash generated (or consumed) by our operating activities that is available (or is not available) to be used for strategic initiatives. For example, if Free Cash Flow is negative, we may need to access cash reserves or other sources of capital to invest in strategic initiatives. We also believe that the use of Free Cash Flow enables us to more effectively evaluate our liquidity period-over-period and relative to our competitors.

A reconciliation of Free Cash Flow to net cash provided by operating activities, the most directly comparable GAAP measure, is as follows:

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
Net cash provided by operating activities . . . . .	\$ 5,795	\$ 22,886	\$ 3,423
Less:			
Purchases of property and equipment . . . . .	(8,696)	(3,437)	(2,519)
Capitalized software development costs . . . . .	(10,460)	(6,310)	(3,442)
Free Cash Flow . . . . .	<u>\$ (13,361)</u>	<u>\$ 13,139</u>	<u>\$ (2,538)</u>
Net cash used in investing activities . . . . .	\$ (19,756)	\$ (26,661)	\$ (5,961)
Net cash provided by (used in) financing activities . . . . .	\$ (2,020)	\$ 67,102	\$ 101
Cash paid for interest . . . . .	\$ 12,169	\$ 13,598	\$ 20,758

Free Cash Flow has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results as reported under GAAP. For example, Free Cash Flow does not represent the total increase or decrease in our cash balance for a given period. Because of these limitations, Free Cash Flow should not be considered as a replacement for cash flow from operations, as determined by GAAP, or as a measure of our profitability. We compensate for these limitations by relying primarily on our GAAP results and using non-GAAP measures only for supplemental purposes.

### **Non-GAAP Gross Profit**

Non-GAAP Gross Profit is a supplemental measure of operating performance that is not made under GAAP and that does not represent, and should not be considered as, an alternative to gross profit, as determined by GAAP. We define Non-GAAP Gross Profit as gross profit, adjusted for stock-based compensation expense and certain amortization expense of acquired intangible assets and software developed for internal use.

We use Non-GAAP Gross Profit to understand and evaluate our core operating performance and trends, to prepare and approve our annual budget and to develop short-term and long-term operating plans. We believe that Non-GAAP Gross Profit is a useful measure to us and to our investors because it provides consistency and comparability with our past financial performance and between fiscal periods, as the metric generally eliminates the effects of the variability of amortization of acquired intangibles and internal-use software from period to period, which may fluctuate for reasons unrelated to overall operating performance. We believe that the use of this measure enables us to more effectively evaluate our performance period-over-period and relative to our competitors.

A reconciliation of Non-GAAP Gross Profit to gross profit, the most directly comparable GAAP measure, is as follows:

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
Gross profit . . . . .	\$ 187,194	\$ 156,951	\$ 136,704
Amortization expense . . . . .	16,338	14,396	12,626
Stock-based compensation expense . . . . .	221	—	—
Non-GAAP Gross Profit . . . . .	<u>\$ 203,753</u>	<u>\$ 171,347</u>	<u>\$ 149,330</u>

Non-GAAP Gross Profit has limitations as an analytical tool, and you should not consider it in isolation, or as a substitute for analysis of our results as reported under GAAP. Because of these limitations, Non-GAAP Gross Profit should not be considered as a replacement for gross profit, as determined by GAAP, or as a measure of our profitability. We compensate for these limitations by relying primarily on our GAAP results and using non-GAAP measures only for supplemental purposes.

### **Adjusted EBITDA**

Adjusted EBITDA is a supplemental measure of operating performance that is not made under GAAP and that does not represent, and should not be considered as, an alternative to net income (loss), as determined by GAAP. We define Adjusted EBITDA as net income (loss), adjusted for interest expense, loss on extinguishment of debt, (benefit) provision for income taxes, depreciation and amortization, stock-based compensation expense, acquisition-related expense and other (income) expense, net.

We use Adjusted EBITDA to understand and evaluate our core operating performance and trends, to prepare and approve our annual budget and to develop short-term and long-term operating plans. We believe that Adjusted EBITDA facilitates comparison of our operating performance on a consistent basis between periods, and when viewed in combination with our results prepared in accordance with GAAP, helps provide a broader picture of factors and trends affecting our results of operations.

A reconciliation of Adjusted EBITDA to net income (loss), the most directly comparable GAAP measure, is as follows:

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
Net income (loss) .....	\$ (1,504)	\$ (13,446)	\$ 18,961
Interest expense <sup>(1)</sup> .....	12,914	15,837	19,277
Loss on extinguishment of debt .....	4,532	9,785	—
(Benefit) provision for income taxes .....	(8,222)	3,375	(13,185)
Depreciation and amortization .....	32,977	30,737	29,152
Stock-based compensation expense .....	6,332	2,848	2,524
Acquisition-related expense <sup>(2)</sup> .....	3,321	6,666	—
Other (income) expense, net <sup>(3)</sup> .....	(363)	335	(773)
Adjusted EBITDA .....	<u>\$ 49,987</u>	<u>\$ 56,137</u>	<u>\$ 55,956</u>

(1) Includes amortization of debt issuance costs.

(2) Acquisition-related expense for the years ended December 31, 2019 and 2018, respectively, included \$3.3 million and \$5.2 million of contingent compensation and retention expense related to the acquisition of Elastic Beam, Inc. ("Elastic Beam"). For more information related to our acquisition of Elastic Beam and the payment of contingent compensation, please refer to Note 5 of our consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

(3) See "Management's Discussion and Analysis of Financial Condition and Results of Operations" for the components of other (income) expense.

Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation, or as a substitute for analysis of our results as reported under GAAP. Because of these limitations, Adjusted EBITDA should not be considered as a replacement for net income (loss), as determined by GAAP, or as a measure of our profitability. We compensate for these limitations by relying primarily on our GAAP results and using non-GAAP measures only for supplemental purposes.

## Components of Results of Operations

### Revenue

We recognize revenue under ASC 606 when our customer obtains control of goods or services in an amount that reflects the consideration that we expect to receive in exchange for those goods or services. See "Critical Accounting Policies — Revenue Recognition."

We derive revenue primarily from sales of subscriptions for our solutions to new and existing customers and, to a lesser extent, sales of professional services.

**Subscription.** Subscription revenue includes subscription term-based license revenue for solutions deployed on-premise within the customer's IT infrastructure or in a third-party cloud of their choice, subscription support and maintenance revenue from such deployments, and SaaS subscriptions, which give customers the right to access our cloud-hosted software solutions. We typically invoice subscription fees annually in advance, though certain contracts require invoicing for the entire subscription in advance. Subscription term-based license revenue is recognized upon transfer of control of the software, which occurs at delivery or when the license term commences, if later. All of our support and maintenance revenue and revenue from SaaS subscriptions is recognized ratably over the term of the applicable agreement.

For the years ended December 31, 2019, 2018 and 2017, 66%, 66% and 71%, respectively, of our revenue was from subscription term-based licenses. We expect that a majority of our revenue will be from subscription

term-based licenses for the foreseeable future. Changes in period-over-period subscription revenue growth are primarily impacted by the following factors:

- the type of new and renewed subscriptions (i.e., term-based or SaaS); and
- the duration of new and renewed term-based subscriptions.

While the number of new and increased subscriptions during a period impacts our subscription revenue growth, the type and duration of those subscriptions has a significantly greater impact on the amount and timing of revenue recognized in a period. Subscription revenue from term-based licenses is recognized at the beginning of the subscription term, while subscription revenue from SaaS and support and maintenance is recognized ratably over the subscription term. As a result, our revenue may fluctuate due to the timing of term-based licensing transactions. In addition, keeping other factors constant, when the percentage of subscription term-based licenses to total subscriptions sold or renewed in a period increases relative to the prior period, revenue growth will increase. Conversely, when the percentage of subscription SaaS and support and maintenance to total subscriptions sold or renewed in a period increases, revenue growth will generally decrease. Additionally, a multi-year subscription term-based license will generally result in greater revenue recognition up front relative to a one-year subscription term-based license. Therefore, keeping other factors constant, revenue growth will also trend higher in a period where the percentage of multi-year subscription term-based licenses to total subscription term-based licenses increases.

*Professional Services and Other.* Professional services and other revenue consists primarily of fees from professional services provided to our customers and partners to configure and optimize the use of our solutions, as well as training services related to the configuration and operation of our solutions. Our professional services are generally priced on a time and materials basis, which is generally invoiced monthly and for which revenue is recognized as the services are performed. Revenue from our training services and sponsorship fees is recognized on the date the services are complete. Over time, we expect our professional services revenue to remain relatively stable as a percentage of total revenue.

### **Cost of Revenue**

*Subscription.* Subscription cost of revenue consists primarily of employee compensation costs for employees associated with supporting our subscription arrangements and certain third-party expenses. Employee compensation and related costs include cash compensation and benefits to employees, stock-based compensation, costs of third-party contractors and associated overhead costs. Third-party expenses consist of cloud infrastructure costs and other expenses directly associated with our customer support. We expect our subscription cost of revenue to increase in absolute dollars to the extent our subscription revenue increases.

*Professional Services and Other.* Professional services and other cost of revenue consists primarily of employee compensation costs directly associated with delivery of professional services and training, including stock-based compensation, costs of third-party contractors and facility rental charges and other associated overhead costs. We expect our professional services and other cost of revenue to increase in absolute dollars relative to the growth of our business.

*Amortization Expense.* Amortization expense consists of amortization of developed technology and internal-use software.

### **Operating Expenses**

Our operating expenses consist of sales and marketing, research and development and general and administrative expenses as well as depreciation and amortization. Personnel costs are the most significant component of operating expenses and consist of salaries, benefits, bonuses, payroll taxes and stock-based compensation expense.

***Sales and Marketing.*** Sales and marketing expenses consist primarily of employee compensation costs, sales commissions, costs of general marketing and promotional activities, travel-related expenses and allocated overhead. Certain sales commissions earned by our sales force on subscription contracts are deferred and amortized over the period of benefit, which is generally four years. We expect to continue to invest in our sales force domestically and internationally, as well as in our channel relationships. We expect our sales and marketing expenses to increase on an absolute dollar basis and continue to be our largest operating expense category for the foreseeable future.

***Research and Development.*** Research and development expenses consist primarily of employee compensation costs, allocated overhead and software and maintenance expenses. We will continue to invest in innovation and offer our customers new solutions to enhance our existing platform. See the section “Business — Research and Development” for more information. We expect such investment to increase on an absolute dollar basis as our business grows.

***General and Administrative.*** General and administrative expenses consist primarily of employee compensation costs for corporate personnel, such as those in our executive, human resource, legal, facilities, accounting and finance, information security and information technology departments. In addition, general and administrative expenses include third-party professional fees, as well as all other supporting corporate expenses not allocated to other departments. General and administrative expense also includes acquisition-related expenses, which primarily consist of third-party expenses related to business acquisitions, such as professional services and legal fees.

We expect our general and administrative expenses to increase on an absolute dollar basis as our business grows. Also, we expect to incur additional general and administrative expenses as a result of continuing to operate as a public company, including costs to comply with the rules and regulations applicable to companies listed on a national securities exchange, costs related to compliance and reporting obligations pursuant to the rules and regulations of the SEC, and increased expenses for insurance, investor relations and professional services.

***Depreciation and Amortization.*** Depreciation and amortization expense consists primarily of depreciation of our fixed assets and amortization of finite-lived acquired intangible assets such as customer relationships, trade names and non-compete agreements.

### ***Other Income (Expense)***

***Interest Expense.*** Interest expense consists primarily of interest payments on our outstanding borrowings as well as the amortization of associated deferred financing costs. See “— Liquidity and Capital Resources — Senior Secured Credit Facilities.”

***Other Income (Expense), Net.*** Other income (expense), net primarily consists of gains and losses from transactions denominated in a currency other than the functional currency, interest income and other income (expense). As we have expanded our international operations, our exposure to fluctuations in foreign currencies has increased, and we expect this to continue.

### ***Benefit (Provision) for Income Taxes***

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

## Results of Operations

The following table sets forth our consolidated statements of operations data for the periods indicated:

	Year Ended December 31,		
	2019	2018 (in thousands)	2017
Revenue:			
Subscription . . . . .	\$ 225,345	\$ 184,991	\$ 160,219
Professional services and other . . . . .	17,553	16,571	12,320
Total revenue . . . . .	242,898	201,562	172,539
Cost of revenue:			
Subscription (exclusive of amortization shown below) . . . . .	24,044	17,512	14,054
Professional services and other (exclusive of amortization shown below) . . . . .	15,322	12,703	9,155
Amortization expense . . . . .	16,338	14,396	12,626
Total cost of revenue . . . . .	55,704	44,611	35,835
Gross profit . . . . .	187,194	156,951	136,704
Operating expenses:			
Sales and marketing <sup>(1)</sup> . . . . .	78,889	60,140	49,481
Research and development <sup>(1)</sup> . . . . .	46,016	36,229	26,215
General and administrative <sup>(1)</sup> . . . . .	38,293	28,355	20,202
Depreciation and amortization . . . . .	16,639	16,341	16,526
Total operating expenses . . . . .	179,837	141,065	112,424
Income from operations . . . . .	7,357	15,886	24,280
Other income (expense):			
Interest expense . . . . .	(12,914)	(15,837)	(19,277)
Loss on extinguishment of debt . . . . .	(4,532)	(9,785)	—
Other income (expense), net . . . . .	363	(335)	773
Total other income (expense) . . . . .	(17,083)	(25,957)	(18,504)
Income (loss) before income taxes . . . . .	(9,726)	(10,071)	5,776
Benefit (provision) for income taxes . . . . .	8,222	(3,375)	13,185
Net income (loss) . . . . .	<u>\$ (1,504)</u>	<u>\$ (13,446)</u>	<u>\$ 18,961</u>

(1) Includes stock-based compensation as follows:

	Year Ended December 31,		
	2019	2018 (in thousands)	2017
Subscription cost of revenue . . . . .	\$ 141	\$ —	\$ —
Professional services and other cost of revenue . . . . .	80	—	—
Sales and marketing . . . . .	1,407	726	626
Research and development . . . . .	1,364	342	297
General and administrative . . . . .	3,340	1,780	1,601
Total . . . . .	<u>\$ 6,332</u>	<u>\$ 2,848</u>	<u>\$ 2,524</u>

The following table sets forth our consolidated statements of operations data expressed as a percentage of total revenue for the periods indicated:

	Year Ended December 31,		
	2019	2018	2017
Revenue:			
Subscription . . . . .	93 %	92 %	93 %
Professional services and other . . . . .	7	8	7
Total revenue . . . . .	100	100	100
Cost of revenue:			
Subscription (exclusive of amortization shown below) . . . . .	10	9	8
Professional services and other (exclusive of amortization shown below) . . . . .	6	6	5
Amortization expense . . . . .	7	7	7
Total cost of revenue . . . . .	23	22	20
Gross profit . . . . .	77	78	80
Operating expenses:			
Sales and marketing . . . . .	32	30	29
Research and development . . . . .	19	18	15
General and administrative . . . . .	16	14	12
Depreciation and amortization . . . . .	7	8	10
Total operating expenses . . . . .	74	70	66
Income from operations . . . . .	3	8	14
Other income (expense):			
Interest expense . . . . .	(5)	(8)	(11)
Loss on extinguishment of debt . . . . .	(2)	(5)	—
Other income (expense), net . . . . .	—	—	—
Total other income (expense) . . . . .	(7)	(13)	(11)
Income (loss) before income taxes . . . . .	(4)	(5)	3
Benefit (provision) for income taxes . . . . .	3	(2)	8
Net income (loss) . . . . .	(1)%	(7)%	11 %

### Comparison of the Years Ended December 31, 2019, 2018 and 2017

#### Revenue

	Year Ended December 31,		Change		Year Ended December 31,		Change	
	2019	2018	\$	%	2018	2017	\$	%
	(dollars in thousands)							
Revenue:								
Subscription . . . . .	\$ 225,345	\$ 184,991	\$ 40,354	22 %	\$ 184,991	\$ 160,219	\$ 24,772	15 %
Professional services and other . . . . .	17,553	16,571	982	6	16,571	12,320	4,251	35
Total revenue . . . . .	<u>\$ 242,898</u>	<u>\$ 201,562</u>	<u>\$ 41,336</u>	21 %	<u>\$ 201,562</u>	<u>\$ 172,539</u>	<u>\$ 29,023</u>	17 %

Total revenue increased by \$41.3 million, or 21%, for the year ended December 31, 2019 compared to the year ended December 31, 2018. 98% of the increase in total revenue was due to an increase in subscription revenue of \$40.4 million. The remaining \$1.0 million of revenue growth was attributable to an increase in professional services and other revenue.

Total revenue increased by \$29.0 million, or 17%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. 85% of the increase in total revenue was due to an increase in subscription revenue of \$24.8 million. The remaining \$4.3 million of revenue growth was attributable to an increase in professional services and other revenue.



The table below sets forth the components of subscription revenue for the years ended December 31, 2019, 2018 and 2017.

	Year Ended December 31,		Change		Year Ended December 31,		Change	
	2019	2018	\$	%	2018	2017	\$	%
	(dollars in thousands)							
Subscription:								
Multi-year subscription term-based licenses .....	\$ 113,151	\$ 88,925	\$ 24,226		\$ 88,925	\$ 86,421	\$ 2,504	
1-year subscription term-based licenses .....	48,255	44,743	3,512		44,743	35,678	9,065	
Subscription term-based licenses .....	161,406	133,668	27,738		133,668	122,099	11,569	
Subscription SaaS and maintenance and support .....	63,939	51,323	12,616		51,323	38,120	13,203	
Total subscription revenue .....	<u>\$ 225,345</u>	<u>\$ 184,991</u>	<u>\$ 40,354</u>	22 %	<u>\$ 184,991</u>	<u>\$ 160,219</u>	<u>\$ 24,772</u>	15 %

Subscription revenue increased 22%, or \$40.4 million, in the year ended December 31, 2019 compared to the year ended December 31, 2018. Subscription revenue increased 15%, or \$24.8 million, in the year ended December 31, 2018 compared to the year ended December 31, 2017. The change in subscription revenue was primarily due to the following:

- *Change in subscription type.* Subscription term-based license revenue as a percentage of subscription revenue was 72% in the years ended December 31, 2019 and 2018. Subscription SaaS and support and maintenance as a percentage of total subscription revenue was 28% in the years ended December 31, 2019 and 2018. As the mix of subscription types stayed consistent between 2019 and 2018, the increase in total subscription revenue was attributable to a greater amount of subscriptions entered into or renewed during the year ended December 31, 2019 compared to the year ended December 31, 2018. Subscription term-based license revenue as a percentage of subscription revenue decreased from 76% in the year ended December 31, 2017 to 72% in the year ended December 31, 2018. Subscription SaaS and support and maintenance as a percentage of total subscription revenue increased from 24% in the year ended December 31, 2017 to 28% in the year ended December 31, 2018. This resulted in greater deferral of revenue from subscriptions entered into or renewed during the year ended December 31, 2018 compared to the year ended December 31, 2017.
- *Change in term-based subscription duration.* Multi-year subscription term-based license revenue as a percentage of total subscription term-based license revenue increased from 67% in the year ended December 31, 2018 to 70% in the year ended December 31, 2019. This resulted in more upfront revenue recognition from subscriptions entered into or renewed during the year ended December 31, 2019 compared to the year ended December 31, 2018. Multi-year subscription term-based license revenue as a percentage of total subscription term-based license revenue decreased from 71% in the year ended December 31, 2017 to 67% in the year ended December 31, 2018. This resulted in less upfront revenue recognition from subscriptions entered into or renewed during the year ended December 31, 2018 compared to the year ended December 31, 2017.

### Cost of Revenue

	Year Ended December 31,		Change		Year Ended December 31,		Change	
	2019	2018	\$	%	2018	2017	\$	%
	(dollars in thousands)							
Cost of revenue:								
Subscription (exclusive of amortization shown below) .....	\$ 24,044	\$ 17,512	\$ 6,532	37 %	\$ 17,512	\$ 14,054	\$ 3,458	25 %
Professional services and other (exclusive of amortization shown below) .....	15,322	12,703	2,619	21	12,703	9,155	3,548	39
Amortization expense .....	16,338	14,396	1,942	13	14,396	12,626	1,770	14
Total cost of revenue .....	<u>\$ 55,704</u>	<u>\$ 44,611</u>	<u>\$ 11,093</u>	25 %	<u>\$ 44,611</u>	<u>\$ 35,835</u>	<u>\$ 8,776</u>	24 %

Subscription cost of revenue increased by \$6.5 million, or 37%, for the year ended December 31, 2019 compared to the year ended December 31, 2018. \$3.3 million of the increase was compensation related and primarily attributable to an increase in headcount to support the growth of our subscription SaaS offerings and ongoing maintenance for our expanding customer base. \$2.0 million of the increase was attributable to our increased cloud-based hosting costs largely associated with the increased adoption of our solutions. Substantially all of the remaining increase in subscription cost of revenue was due to an increase in allocated overhead.

Subscription cost of revenue increased by \$3.5 million, or 25%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. \$1.8 million of the increase was compensation related and primarily attributable to an increase in headcount to support the growth of our subscription SaaS offerings and ongoing maintenance for our expanding customer base. \$1.0 million of the increase was attributable to our increased cloud-based hosting costs largely associated with the increased adoption of our solutions. Substantially all of the remaining increase in subscription cost of revenue was due to an increase in travel costs and allocated overhead.

Professional services and other cost of revenue increased by \$2.6 million, or 21%, for the year ended December 31, 2019 compared to the year ended December 31, 2018. \$3.4 million of the increase was compensation related and primarily attributable to an increase in headcount to support growth of our business, partially offset by a decrease in consulting costs of \$1.2 million. The remaining portion of the increase was primarily attributable to travel costs and allocated overhead.

Professional services and other cost of revenue increased by \$3.5 million, or 39%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. \$2.8 million of the increase was compensation related and primarily attributable to an increase in headcount to support growth of our business. \$0.5 million of the increase related to consulting costs. The remaining portion of the increase was primarily attributable to travel costs as well as allocated overhead.

Amortization expense increased by \$1.9 million, or 13%, for the year ended December 31, 2019 compared to the year ended December 31, 2018. Amortization expense increased by \$1.8 million, or 14%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. The year-over-year increase were attributable primarily to an increase in the amortization of our capitalized software.

## ***Operating Expenses***

	Year Ended December 31,		Change		Year Ended December 31,		Change	
	2019	2018	\$	%	2018	2017	\$	%
	(dollars in thousands)							
Sales and marketing . . . . .	\$ 78,889	\$ 60,140	\$ 18,749	31 %	\$ 60,140	\$ 49,481	\$ 10,659	22 %
Research and development . . . . .	46,016	36,229	9,787	27	36,229	26,215	10,014	38
General and administrative . . . . .	38,293	28,355	9,938	35	28,355	20,202	8,153	40
Depreciation and amortization . . . . .	16,639	16,341	298	2	16,341	16,526	(185)	(1)
Total operating expenses . . . . .	<u>\$ 179,837</u>	<u>\$ 141,065</u>	<u>\$ 38,772</u>	27 %	<u>\$ 141,065</u>	<u>\$ 112,424</u>	<u>\$ 28,641</u>	25 %

***Sales and Marketing.*** Sales and marketing expenses increased by \$18.7 million, or 31%, for the year ended December 31, 2019 compared to the year ended December 31, 2018. \$11.7 million of the increase was related to compensation and was notably the result of increased commissions related to the increase in revenue, the increase in our sales force domestically and internationally and continued investment in our channel relationships. As our headcount increased, we also experienced a related increase in travel costs of \$0.8 million. \$1.8 million of the increase related to promotional expenses including advertising, tradeshow and event sponsorships. An additional \$1.9 million of the increase was attributable to increased partner commissions and consulting costs. Substantially all of the remaining increase in sales and marketing expenses was the result of an increase in allocated overhead.

Sales and marketing expenses increased by \$10.7 million, or 22%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. \$6.0 million of the increase was the result of increased commissions related to the increase in revenue, the increase in our sales force domestically and internationally and continued investment in our channel relationships. As our headcount increased, we also experienced a related increase in travel costs of \$1.2 million and increased promotional expenses of \$1.5 million primarily related to tradeshow and event sponsorships for the year ended December 31, 2018 compared to the year ended December 31, 2017. Substantially all of the remaining increase in sales and marketing expenses was the result of increased partner commissions and consulting costs, as well as allocated overhead.

*Research and Development.* Research and development expenses increased by \$9.8 million, or 27%, for the year ended December 31, 2019 compared to the year ended December 31, 2018. \$10.2 million was compensation related and primarily the result of an increase in headcount to enhance and expand our solutions. This was offset by a decrease of \$1.9 million of contingent compensation and retention expense related to our acquisition of Elastic Beam (as further discussed in Note 5 of our consolidated financial statements appearing in Part II, Item 8 of this Annual Report on Form 10-K). Substantially all of the remaining increase in research and development expenses was the result of increased consulting costs and cloud-based hosting costs to continue to support our development efforts for our SaaS offerings, as well as allocated overhead.

Research and development expenses increased by \$10.0 million, or 38%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. \$4.0 million of the increase was compensation related and primarily the result of an increase in headcount to enhance and expand our solutions. Additionally, \$5.2 million of the increase related to contingent compensation and retention expense that was payable on the first anniversary of our acquisition of Elastic Beam, which we acquired in April 2018. Substantially all of the remaining increase in research and development expenses was the result of increased software and maintenance expenses, primarily cloud-based hosting costs to support our development efforts for our SaaS offerings, consulting costs and allocated overhead.

*General and Administrative.* General and administrative expenses increased by \$9.9 million, or 35%, for the year ended December 31, 2019 compared to the year ended December 31, 2018. \$9.1 million of the increase was the result of an increase in corporate headcount to continue to support the growth and scale of the business. This was offset by a decrease of \$0.6 million from acquisition-related expenses that we incurred during the year ended December 31, 2018 for our acquisition of Elastic Beam. Substantially all of the remaining increase in general and administrative expenses related to increased legal fees and director and officer insurance expenses, both resulting from operating as a public company, as well as allocated overhead.

General and administrative expenses increased by \$8.2 million, or 40%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. \$3.9 million of the increase was the result of an increase in corporate headcount to support the growth and scale of the business. An additional \$1.3 million of the increase resulted from an increase in consulting costs, driven primarily by the implementation of new accounting standards and our preparation for becoming a public company. General and administrative expenses for the year ended December 31, 2018 also included \$0.6 million of acquisition-related expenses related to our acquisition of Elastic Beam. Substantially all of the remaining increase in general and administrative expenses related to increased accounting and legal fees driven by our preparation for becoming a public company.

*Depreciation and Amortization.* Depreciation and amortization expense remained substantially the same for the year ended December 31, 2019 compared to the year ended December 31, 2018 and for the year ended December 31, 2018 compared to the year ended December 31, 2017.

## Other Income (Expense)

	Year Ended December 31,		Change		Year Ended December 31,		Change	
	2019	2018	\$	%	2018	2017	\$	%
(dollars in thousands)								
Interest expense	\$ (12,914)	\$ (15,837)	\$ 2,923	(18)%	\$ (15,837)	\$ (19,277)	\$ 3,440	(18)%
Loss on extinguishment of debt	(4,532)	(9,785)	5,253	(54)	(9,785)	—	(9,785)	N/M
Other income (expense), net	363	(335)	698	208	(335)	773	(1,108)	(143)
Total other income (expense)	<u>\$ (17,083)</u>	<u>\$ (25,957)</u>	<u>\$ 8,874</u>	<u>(34)%</u>	<u>\$ (25,957)</u>	<u>\$ (18,504)</u>	<u>\$ (7,453)</u>	<u>40 %</u>

**Interest Expense.** Interest expense decreased by \$2.9 million, or 18%, for the year ended December 31, 2019 compared to the year ended December 31, 2018. The decrease was attributable primarily to the repayment of \$170.3 million and \$26.1 million of outstanding principal on our 2018 Term Loan Facility in September 2019 and October 2019, respectively. The decrease also partially relates to the refinancing of our debt in December 2019, as our 2019 Revolving Credit Facility bears interest at a lower rate than our 2018 Term Loan Facility. The decrease was partially offset by a period-over-period increase in the weighted average interest rate, from 5.8% for the year ended December 31, 2018 to 6.1% for the year ended December 31, 2019.

Interest expense decreased by \$3.4 million, or 18%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. The decrease was attributable primarily to the refinancing of our debt in January 2018, through which we increased our borrowings of long-term debt from a principal amount of \$170.0 million to \$250.0 million but were able to obtain more favorable interest rates, from a weighted average interest rate of 10.4% for the year ended December 31, 2017 to 5.8% for the year ended December 31, 2018, resulting in reduced interest expense for the year ended December 31, 2018.

**Loss on Extinguishment of Debt.** During the year ended December 31, 2019, we recorded a loss on extinguishment of debt of \$4.5 million. \$3.6 million of the loss related to the write off of a portion of our deferred debt issuance costs in conjunction with the repayment of \$196.4 million of outstanding principal on our 2018 Term Loan Facility using the proceeds from our IPO. The remaining \$0.9 million of the loss related to the refinancing of our debt in December 2019. During the year ended December 31, 2018, we recorded a loss on extinguishment of debt of \$9.8 million in conjunction with the refinancing of our debt in January 2018. There was no similar loss during the year ended December 31, 2017.

**Other Income (Expense), Net.** Other income (expense), net increased by \$0.7 million, or 208%, from other expense of \$0.3 million in the year ended December 31, 2018 to other income of \$0.4 million in the year ended December 31, 2019. The increase was attributable primarily to a change in the amount of foreign currency gains and losses, from a loss of \$2.0 million in the year ended December 31, 2018 compared to a loss of \$0.9 million in the year ended December 31, 2019. These foreign currency losses were offset by interest and other income of \$1.3 million and \$1.7 million during the years ended December 31, 2019 and 2018, respectively.

Other income (expense), net decreased by \$1.1 million, or 143%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. The decrease was attributable primarily to a change in the amount of foreign currency gains and losses, from a gain of \$0.7 million in the year ended December 31, 2017 compared to a loss of \$2.0 million in the year ended December 31, 2018.

## Benefit (Provision) for Income Taxes

	Year Ended December 31,		Change		Year Ended December 31,		Change	
	2019	2018	\$	%	2018	2017	\$	%
(dollars in thousands)								
Benefit (provision) for income taxes	\$ 8,222	\$ (3,375)	\$ 11,597	(344)%	\$ (3,375)	\$ 13,185	\$ (16,560)	(126)%

For the year ended December 31, 2019, we recorded a benefit for income taxes of \$8.2 million. For the year ended December 31, 2018, we recorded a provision for income taxes of \$3.4 million. Our effective tax rates for the years ended December 31, 2019 and 2018 were 84.5% and (33.5)%, respectively. The increase in our effective tax rate for 2019 compared to 2018 was primarily driven by the finalization of a research and

development (“R&D”) study in the third quarter of 2019 that generated a tax benefit of \$4.6 million, of which the Company partially offset with an unrecognized tax benefit reserve of \$0.9 million. Additionally, for the year ended December 31, 2018, we recorded tax expense of \$4.2 million related to an increase in the state tax rates compared to a tax benefit of \$2.7 million for the year ended December 31, 2019.

For the year ended December 31, 2018, we recorded a provision for income taxes of \$3.4 million. For the year ended December 31, 2017, we recorded a benefit for income taxes of \$13.2 million. Our effective tax rates for the years ended December 31, 2018 and 2017 were (33.5)% and (228.2)%, respectively. The increase in our effective tax rate for 2018 compared to 2017 was primarily driven by the enactment of the Tax Act in 2017. As a result of the Tax Act, we remeasured our deferred tax assets and liabilities at the lower U.S. federal tax rate, which resulted in a one-time tax benefit during the year ended December 31, 2017 of \$17.0 million. This one-time tax benefit was partially offset by the one-time transition tax expense on certain unremitted earnings of our foreign subsidiaries during the year ended December 31, 2017 of \$1.2 million. Additionally, there were changes to our state tax rates which resulted in tax expense of \$4.2 million and \$1.9 million during the years ended December 31, 2018 and December 31, 2017, respectively. During the year ended December 31, 2018, we also recorded tax expense of \$1.0 million for contingent deal consideration related to our acquisition of Elastic Beam.

### **Quarterly Results of Operations and Other Data**

The following tables set forth selected unaudited consolidated quarterly statements of operations data for each of the eight fiscal quarters ended December 31, 2019, as well as the percentage of revenue that each line item represents for each quarter. The information for each of these quarters has been prepared on the same basis as the audited annual consolidated financial statements included elsewhere in this Annual Report on Form 10-K and, in the opinion of management, includes all adjustments, which consist only of normal recurring adjustments, necessary for the fair statement of the results of operations for these periods. This data should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this

Annual Report on Form 10-K. These quarterly results are not necessarily indicative of our results of operations to be expected for any future period.

	Three Months Ended							
	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018
	(in thousands, except per share amounts)							
Revenue:								
Subscription . . . . .	\$ 63,958	\$ 57,495	\$ 56,272	\$ 47,620	\$ 55,934	\$ 38,481	\$ 44,403	\$ 46,173
Professional services and other . . . . .	4,277	4,270	6,188	2,818	3,559	4,138	5,100	3,774
Total revenue . . . . .	68,235	61,765	62,460	50,438	59,493	42,619	49,503	49,947
Cost of revenue:								
Subscription (exclusive of amortization shown below) . . . . .	7,216	5,995	5,652	5,181	4,727	4,526	4,341	3,918
Professional services and other (exclusive of amortization shown below) . . . . .	4,320	4,086	3,675	3,241	3,519	3,347	2,686	3,151
Amortization expense . . . . .	4,357	4,159	3,956	3,866	3,783	3,549	3,586	3,478
Total cost of revenue . . . . .	15,893	14,240	13,283	12,288	12,029	11,422	10,613	10,547
Gross profit . . . . .	52,342	47,525	49,177	38,150	47,464	31,197	38,890	39,400
Operating expenses:								
Sales and marketing <sup>(1)</sup> . . . . .	23,736	17,819	20,026	17,308	18,329	13,690	15,498	12,623
Research and development <sup>(1)</sup> . . . . .	12,422	11,283	10,857	11,454	10,202	9,634	9,367	7,026
General and administrative <sup>(1)</sup> . . . . .	11,561	10,984	8,664	7,084	8,865	6,411	5,699	7,380
Depreciation and amortization . . . . .	4,305	4,060	4,153	4,121	4,009	3,976	4,182	4,174
Total operating expenses . . . . .	52,024	44,146	43,700	39,967	41,405	33,711	34,746	31,203
Income (loss) from operations . . . . .	318	3,379	5,477	(1,817)	6,059	(2,514)	4,144	8,197
Other income (expense):								
Interest expense . . . . .	(847)	(3,818)	(4,133)	(4,116)	(4,087)	(3,959)	(3,835)	(3,956)
Loss on extinguishment of debt . . . . .	(1,382)	(3,150)	—	—	—	—	—	(9,785)
Other income (expense), net . . . . .	1,130	(992)	234	(9)	708	(131)	(1,308)	396
Total other income (expense) . . . . .	(1,099)	(7,960)	(3,899)	(4,125)	(3,379)	(4,090)	(5,143)	(13,345)
Income (loss) before income taxes . . . . .	(781)	(4,581)	1,578	(5,942)	2,680	(6,604)	(999)	(5,148)
Benefit (provision) for income taxes . . . . .	2,995	3,986	178	1,063	(4,749)	983	(695)	1,086
Net income (loss) . . . . .	\$ 2,214	\$ (595)	\$ 1,756	\$ (4,879)	\$ (2,069)	\$ (5,621)	\$ (1,694)	\$ (4,062)
Net income (loss) per share:								
Basic . . . . .	\$ 0.03	\$ (0.01)	\$ 0.03	\$ (0.08)	\$ (0.03)	\$ (0.09)	\$ (0.03)	\$ (0.06)
Diluted . . . . .	\$ 0.03	\$ (0.01)	\$ 0.03	\$ (0.08)	\$ (0.03)	\$ (0.09)	\$ (0.03)	\$ (0.06)

(1) Includes stock-based compensation as follows:

	Three Months Ended							
	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018
	(in thousands)							
Subscription cost of revenue . . . . .	\$ 141	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Professional services and other cost of revenue . . . . .	80	—	—	—	—	—	—	—
Sales and marketing . . . . .	714	283	188	222	191	184	182	169
Research and development . . . . .	706	225	218	215	158	76	37	71
General and administrative . . . . .	894	1,190	634	622	515	444	435	386
Total . . . . .	\$ 2,535	\$ 1,698	\$ 1,040	\$ 1,059	\$ 864	\$ 704	\$ 654	\$ 626

	Three Months Ended							
	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018	June 30, 2018	March 31, 2018
Revenue:								
Subscription . . . . .	94 %	93 %	90 %	94 %	94 %	90 %	90 %	92 %
Professional services and other . . . . .	6	7	10	6	6	10	10	8
Total revenue . . . . .	100	100	100	100	100	100	100	100
Cost of revenue:								
Subscription (exclusive of amortization shown below) . . . . .	11	9	9	10	8	11	9	8
Professional services and other (exclusive of amortization shown below) . . . . .	6	7	6	6	6	8	5	6
Amortization expense . . . . .	6	7	6	8	6	8	7	7
Total cost of revenue . . . . .	23	23	21	24	20	27	21	21
Gross profit . . . . .	77	77	79	76	80	73	79	79
Operating expenses:								
Sales and marketing . . . . .	35	29	32	34	31	32	31	25
Research and development . . . . .	18	18	17	23	17	23	19	14
General and administrative . . . . .	17	18	14	14	15	15	12	15
Depreciation and amortization . . . . .	6	7	7	8	7	9	8	8
Total operating expenses . . . . .	76	72	70	79	70	79	70	62
Income (loss) from operations . . . . .	1	5	9	(3)	10	(6)	9	17
Other income (expense):								
Interest expense . . . . .	(1)	(6)	(6)	(8)	(7)	(9)	(8)	(8)
Loss on extinguishment of debt . . . . .	(2)	(5)	—	—	—	—	—	(20)
Other income (expense), net . . . . .	1	(1)	—	—	1	—	(3)	1
Total other income (expense) . . . . .	(2)	(12)	(6)	(8)	(6)	(9)	(11)	(27)
Income (loss) before income taxes . . . . .	(1)	(7)	3	(11)	4	(15)	(2)	(10)
Benefit (provision) for income taxes . . . . .	4	6	—	2	(7)	2	(1)	2
Net income (loss) . . . . .	3 %	(1)%	3 %	(9)%	(3)%	(13)%	(3)%	(8)%

### Quarterly Revenue Trends

Our quarterly revenue increased in each of the periods presented when compared to the results of the same quarter in the prior year due primarily to increases in the number of new customers as well as retention within existing customers and sales of new products year-over-year. We typically experience seasonality in terms of when we receive orders from our customers. We generally receive a greater number of orders from new customers, as well as renewal or upsell orders from existing customers, in our second and fourth quarter because of purchasing patterns of our enterprise customers. Our customers often time their purchases and renewals of our solutions to coincide with their fiscal year end, which is typically June 30 or December 31. Our subscription term-based license revenue is recognized up front at the later of delivery or commencement of the license term, thus creating fluctuations in subscription revenue quarter-over-quarter depending on the number and size of term-based licenses sold each quarter. Conversely, our subscription SaaS and support and maintenance revenue is recognized on a straight-line basis over the contract term. For our subscription SaaS and support and maintenance revenue, a portion of the revenue that we report in each period may be attributable to the recognition of deferred revenue recorded in prior periods. As such, increases or decreases in new sales or renewals in any one period may not be immediately reflected in our revenue for that period and may instead affect future periods.

### Quarterly Operating Expense Trends

Our operating expenses have generally increased sequentially due to our growth and are primarily related to increases in personnel-related costs and related overhead in order to support our expanding operations and our continued investments in our solutions and service capabilities.

## Liquidity and Capital Resources

### **General**

As of December 31, 2019, our principal sources of liquidity were cash and cash equivalents totaling \$67.6 million, which were held for working capital purposes, as well as the available balance of our 2019 Revolving Credit Facility, described further below. As of December 31, 2019, our cash equivalents were comprised of money market funds. During the years ended December 31, 2019, 2018 and 2017, our positive cash flows from operations have enabled us to make continued investments in supporting the growth of our business. We expect that our operating cash flows, in addition to our cash and cash equivalents, will enable us to continue to make such investments in the future. We expect our operating cash flows to further improve as we increase our operational efficiency and experience economies of scale.

We have financed our operations primarily through cash received from operations and proceeds from our debt and equity financings. We believe our existing cash and cash equivalents, the proceeds from our IPO, our 2019 Credit Facilities and cash provided by sales of our solutions and services will be sufficient to meet our working capital and capital expenditure needs for at least the next 12 months. Our future capital requirements will depend on several factors, including but not limited to our obligation to repay any amounts outstanding under our 2019 Credit Facilities, our subscription growth rate, subscription renewal activity, billing frequency, the timing and extent of spending to support development efforts, the expansion of sales and marketing activities, the introduction of new and enhanced solutions and the continuing market adoption of our platform. In the future, we may enter into arrangements to acquire or invest in complementary businesses, services and technologies, including intellectual property rights.

We may be required to seek additional equity or debt financing. In the event that additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital or generate cash flows necessary to expand our operations and invest in new technologies, this could reduce our ability to compete successfully and harm our results of operations.

A majority of our customers pay in advance for annual subscriptions, a portion of which is recorded as deferred revenue. Deferred revenue consists of the unearned portion of billed fees for our subscriptions, which is later recognized as revenue in accordance with our revenue recognition policy. As of December 31, 2019, we had deferred revenue of \$47.5 million, of which \$45.4 million was recorded as a current liability and is expected to be recorded as revenue in the next 12 months, provided all other revenue recognition criteria have been met.

### **Senior Secured Credit Facilities**

On December 12, 2019, in connection with the refinancing of our 2018 Credit Facilities, we entered into the 2019 Credit Agreement providing for the 2019 Revolving Credit Facility with an initial \$150.0 million in commitments for revolving loans, which amount may be increased or decreased under specific circumstances, with a \$15.0 million letter of credit sublimit and a \$50.0 million alternative currency sublimit. In addition, the 2019 Credit Agreement provides for the ability of Ping Identity Corporation to request incremental term loan facilities, in a minimum amount of \$10 million for each facility, if, among other things, the Senior Secured Net Leverage Ratio (as defined in the 2019 Credit Agreement), calculated giving pro forma effect to the requested term loan facility, is no greater than 3.50 to 1.00.

The interest rates applicable to revolving borrowings under the 2019 Credit Agreement are, at the borrower's option, either (i) a base rate, which is equal to the greater of (a) the Prime Rate, (b) the Federal Funds Effective Rate plus  $\frac{1}{2}$  of 1% and (c) the Adjusted LIBO Rate for a one month Interest Period (each term as defined in the 2019 Credit Agreement) plus 1%, or (ii) the Adjusted LIBO Rate equal to the LIBO Rate for the Interest Period multiplied by the Statutory Reserve Rate (each term as defined in the 2019 Credit Agreement), plus in the case of each of clauses (i) and (ii), the Applicable Rate. The Applicable Rate (i) for base rate loans ranges from 0.25% to 1.0% per annum and (i) for LIBO Rate loans ranges from 1.25% to 2.0% per annum, in each case, based on the Senior Secured Net Leverage Ratio (as defined in the 2019 Credit Agreement). The Adjusted LIBO Rate cannot be less than zero. Base rate borrowings may only be made in dollars. The 2019 Credit Agreement also includes a fallback provision, which, subject to certain terms and conditions, provides for a



replacement of the LIBO Rate with (x) one or more SOFR-based rates or (y) any other alternative benchmark rates giving consideration to any evolving or then existing conventions for similar U.S. dollar denominated syndicated credit facilities. The borrower will pay a commitment fee during the term of the 2019 Credit Agreement ranging from 0.20% to 0.35% of the available revolving commitments per annum based on the Senior Secured Net Leverage Ratio (as defined in the 2019 Credit Agreement).

Any borrowing under the 2019 Credit Agreement may be repaid, in whole or in part, at any time and from time to time without premium or penalty other than customary breakage costs, and any amounts repaid may be reborrowed. No mandatory prepayments will be required other than when borrowings or letter of credit usage exceed the aggregate commitment of all lenders.

### **Cash Flows**

The following table presents a summary of our consolidated cash flows from operating, investing and financing activities for the periods indicated.

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
Net cash provided by operating activities . . . . .	\$ 5,795	\$ 22,886	\$ 3,423
Net cash used in investing activities . . . . .	(19,756)	(26,661)	(5,961)
Net cash provided by (used in) financing activities . . . . .	(2,020)	67,102	101
Effect of exchange rate changes on cash and cash equivalents and restricted cash . . . . .	224	(653)	274
Net increase (decrease) in cash and cash equivalents and restricted cash . . . . .	\$ (15,757)	\$ 62,674	\$ (2,163)
Cash and cash equivalents and restricted cash at beginning of period . . . . .	84,143	21,469	23,632
Cash and cash equivalents and restricted cash at end of period . . . . .	<u>\$ 68,386</u>	<u>\$ 84,143</u>	<u>\$ 21,469</u>

### **Operating Activities**

Our largest source of operating cash is cash collections from our customers for subscriptions and professional services. Our primary uses of cash from operating activities are for employee-related expenditures, marketing expenses and third-party hosting costs.

For the year ended December 31, 2019, net cash provided by operating activities was \$5.8 million, reflecting our net loss of \$1.5 million, adjusted for non-cash charges of \$41.7 million and net cash outflows of \$34.4 million provided by changes in our operating assets and liabilities. Non-cash charges primarily consisted of stock-based compensation, amortization of deferred commissions, depreciation and amortization of property and equipment and intangible assets, loss on extinguishment of debt and deferred income taxes. The primary drivers of the changes in operating assets and liabilities related to an \$18.0 million increase in accounts receivable due to the timing of receipt of payment from our customers, an \$18.5 million increase in contract assets due to a large number of multi-year deals being signed in the fourth quarter of 2019, a \$9.1 million increase in deferred commissions and a \$6.6 million increase in prepaid expenses and other current assets due to the timing of cash disbursements. These were partially offset by a \$12.1 million increase in deferred revenue related to the upfront invoicing of certain customers in accordance with their subscription agreements as well as a \$6.3 million increase in accrued expenses and other due to the timing of payments.

During the year ended December 31, 2018, net cash provided by operating activities was \$22.9 million due to our net loss of \$13.4 million that was adjusted for non-cash charges of \$52.2 million and net cash outflows of \$15.9 million provided by changes in our operating assets and liabilities. Non-cash charges primarily consisted of stock-based compensation, amortization of deferred commissions, depreciation and amortization of property and equipment and intangible assets, loss on extinguishment of debt and deferred income taxes. The primary drivers of the changes in operating assets and liabilities related to a \$6.8 million increase in contract assets, a

\$10.0 million increase in deferred commissions and a \$5.8 million increase in prepaid expenses and other current assets due to the timing of payments, and a \$1.5 million increase in accounts receivable due to the timing of receipt of payment from our customers, offset by a \$1.4 million increase in deferred revenue resulting from the timing of when we recognize revenue, as well as a \$6.1 million increase in accrued compensation and a \$1.1 million increase in accrued expenses and other due to the timing of payments.

For the year ended December 31, 2017, net cash provided by operating activities was \$3.4 million, reflecting our net income of \$19.0 million, adjusted for non-cash charges of \$23.3 million and net cash outflows of \$38.8 million provided by changes in our operating assets and liabilities. Non-cash charges primarily consisted of stock-based compensation, amortization of deferred commissions, depreciation and amortization of property and equipment and intangible assets and deferred income taxes. The primary drivers of the changes in operating assets and liabilities related to a \$22.2 million increase in contract assets, a \$7.7 million increase in deferred commissions and a \$6.2 million increase in deferred revenue, primarily driven by the increase in subscription sales in the fourth quarter of 2017 and the associated recognition of revenue, as well as a \$10.0 million increase in accounts receivable due to the timing of receipt of payment from our customers and a \$3.8 million decrease in accrued compensation due to the timing of cash disbursements.

### ***Investing Activities***

Net cash used in investing activities was \$19.8 million and \$26.7 million during the years ended December 31, 2019 and 2018, respectively, a decrease of \$6.9 million. The net decrease is primarily attributable to the acquisition of Elastic Beam for \$17.4 million in cash that occurred in the year ended December 31, 2018, partially offset by an increase in the capitalization of internal-use software costs of \$4.2 million associated with the development of additional features and functionality of our hosted platform as well as an increase in purchases of property and equipment of \$5.3 million related to continued expansion of our business.

Net cash used in investing activities was \$26.7 million and \$6.0 million during the years ended December 31, 2018 and 2017, respectively, an increase of \$20.7 million. The net increase is primarily attributable to the acquisition of Elastic Beam for \$17.4 million in cash as well as an increase in the capitalization of internal-use software costs of \$2.9 million associated with the development of additional features and functionality of our hosted platform.

### ***Financing Activities***

Net cash used in financing activities was \$2.0 million during the year ended December 31, 2019 whereas net cash provided by financing activities was \$67.1 million during the year ended December 31, 2018. During the year ended December 31, 2019, our primary cash inflows related to the receipt of proceeds from our IPO of \$200.5 million, proceeds from the refinancing of our long-term debt of \$52.7 million, and receipt of proceeds from stock option exercises of \$1.6 million, offset by the payment of long-term debt, issuance costs of long-term debt and deferred offering costs of \$248.8 million, \$1.2 million and \$5.2 million, respectively, as well as the payment of Elastic Beam contingent compensation of \$1.1 million. Conversely, during the year ended December 31, 2018, we received proceeds from long-term debt of \$250.0 million, partially offset by issuance costs of \$6.0 million and the repayment of our previous term loan and revolving credit facility and payment of the associated debt extinguishment costs of \$170.0 million and \$5.1 million, respectively.

Net cash provided by financing activities was \$67.1 million and \$0.1 million during the years ended December 31, 2018 and 2017, respectively, an increase of \$67.0 million. The net increase primarily relates to the receipt of proceeds from our 2018 Term Loan Facility of \$250.0 million, partially offset by issuance costs of \$6.0 million and the repayment of our previous term loan and revolving credit facility and payment of the associated debt extinguishment costs of \$170.0 million and \$5.1 million, respectively. This is offset by an additional \$1.3 million related to quarterly principal payments on our 2018 Term Loan Facility that began in September 2018.

## Contractual Obligations and Commitments

Our principal commitments consist of obligations under operating leases for office space and repayments of long-term debt.

The following table summarizes our contractual obligations as of December 31, 2019:

	Payments Due by Period				
	Total	Less than 1 year	1-3 years (in thousands)	3-5 years	More than 5 years
Operating lease obligations . . . . .	\$ 22,535	\$ 3,819	\$ 7,559	\$ 7,551	\$ 3,606
Long-term debt—principal . . . . .	52,177	—	—	52,177	—
Long-term debt—interest <sup>(1)</sup> . . . . .	8,083	1,636	3,263	3,184	—
Other obligations <sup>(2)</sup> . . . . .	29,645	14,528	15,117	—	—
Total . . . . .	<u>\$ 112,440</u>	<u>\$ 19,983</u>	<u>\$ 25,939</u>	<u>\$ 62,912</u>	<u>\$ 3,606</u>

(1) Interest payments that relate to long-term debt are calculated and estimated for the periods presented based on the expected principal balance for each period and the interest rate at December 31, 2019 of 3.0%, given that our debt is at floating interest rates. Excluded from these payments is the amortization of debt issuance costs related to our indebtedness.

(2) Comprised of future minimum payments under noncancelable purchase commitments primarily related to third-party cloud hosting and data services, IT operations and marketing events.

The contractual commitment amounts in the tables above are associated with agreements that are enforceable and legally binding. Obligations under contracts that we can cancel without a significant penalty are not included in the table above. Purchase orders issued in the ordinary course of business are not included in the table above, as our purchase orders represent authorizations to purchase rather than binding agreements.

## Indemnification Agreements

In the ordinary course of business, we enter into agreements of varying scope and terms pursuant to which we agree to indemnify customers, vendors, lessors, business partners and other parties with respect to certain matters, including, but not limited to, losses arising out of the breach of such agreements, services to be provided by us or from intellectual property infringement claims made by third parties. In addition, in connection with the completion of our IPO, we entered into indemnification agreements with our directors and certain officers and employees that require us, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. No demands have been made upon us to provide indemnification under such agreements and there are no claims that we are aware of that could have a material effect on our consolidated balance sheets, consolidated statements of operations and comprehensive income (loss), or consolidated statements of cash flows.

## Off-Balance Sheet Arrangements

As of December 31, 2019, we did not have any relationships with unconsolidated organizations or financial partnerships, such as structure finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or for other contractually narrow or limited purposes.

## JOBS Act Accounting Election

We qualify as an emerging growth company pursuant to the provisions of the JOBS Act. The JOBS Act permits an emerging growth company like us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We have elected to use the extended transition period until we are no longer an emerging growth company or until we choose to affirmatively and irrevocably

opt out of the extended transition period. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements applicable to public companies.

### **Critical Accounting Policies**

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

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

#### **Revenue Recognition**

We recognize revenue under ASC 606. In accordance with ASC 606, revenue is recognized when a customer obtains control of promised goods or services. The amount of revenue recognized reflects the consideration that we expected to be entitled to receive in exchange for those goods or services. To adhere to the requirements of the new standard, we determine revenue recognition through the following steps:

- (1) *Identification of the contract, or contracts, with a customer:* We primarily contract with our customers through order forms, which in some cases are governed by master sales agreements. We determine that we have a contract with a customer when (i) the contract is approved, (ii) we can identify each party's rights and obligations under the contract, (iii) we can identify the payment terms, (iv) we determine the customer has the ability and intent to pay and (v) we conclude that the contract has commercial substance. We are required to use judgment to determine whether the customer has the ability and intent to pay, which is based on a variety of factors including the customer's historical payment experience or, when the contract is with a new customer, the credit, reputation and financial information of that customer. At contract inception we evaluate whether two or more contracts should be combined and accounted for as a single contract and whether the combined or single contract includes more than one performance obligation.
- (2) *Identification of the performance obligations in the contract:* We identify performance obligations in a contract based on the goods and services that will be transferred to the customer. Those goods or services must (i) be capable of being distinct, so the customer can benefit from a good or service either on its own or together with readily available resources (either from third parties or from us) and (ii) be distinct in the context of the contract, where the transfer of control is separately identifiable from other promises in the contract.

We sell our software using a subscription model. Our subscriptions for solutions deployed on-premise within the customer's IT infrastructure are comprised of a term-based license and an obligation to provide support and maintenance, where the term-based license and the support and maintenance constitute separate performance obligations. Our SaaS subscriptions provide customers the right to access cloud-hosted software and support for the SaaS service, which we consider to be a single performance obligation. Additionally, we renew subscriptions for support and maintenance, which we consider to be a single performance obligation.

We have also identified services-related performance obligations that relate to the provisioning of consulting and training services. These services are distinct from subscriptions and do not result in significant customization of the software.

- (3) *Determination of the transaction price:* We determine the transaction price based on the consideration to which we expect to be entitled in exchange for transferring goods or services to the customer in accordance with the contract. Our transaction price excludes amounts collected on behalf of third parties, such as sales tax and value-added tax. Because we typically do not offer refunds, rebates, or credits to customers in the normal course of business, the impact of variable consideration has not been material.

In instances where the timing of revenue recognition differs from the timing of invoicing, we have determined that our contracts generally do not contain a significant financing component. The primary purpose of our invoicing terms is to provide our customers with simple and predictable ways to purchase our subscriptions and not to provide them with financing.

- (4) *Allocation of the transaction price to the performance obligations in the contract:* If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Conversely, some of our contracts with customers contain multiple performance obligations. For these contracts, we account for individual performance obligations separately if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price ("SSP") basis.

We determine SSP based on an observable standalone selling price when it is available. In situations where SSP is not available, for example where software licenses are not sold separately, we determine SSP using information such as market conditions and other observable inputs that may require significant judgment. There is typically a range of standalone selling prices for individual products and services due to a stratification of those products and services by quantity and other circumstances. If a performance obligation is outside the SSP range, we determine the SSP to be the nearest endpoint of the range.

- (5) *Recognition of revenue when, or as, we satisfy a performance obligation:* Revenue is recognized at the time the performance obligation is satisfied by transferring control of the promised good or service to a customer.

Our subscription term-based license revenue is recognized upfront at the later of delivery or commencement of the license term. Support and maintenance revenue is recognized ratably over the contract period based on the stand-ready nature of those subscription elements. Our SaaS subscription revenue is recognized ratably over the contract period as we satisfy the performance obligation.

Professional services revenue is recognized on a time and materials basis as the services are performed. Revenue from training services and sponsorship fees is recognized on the date the services are complete.

*Channel Partner Sales.* We generate sales directly through our sales team as well as through our channel partners. Where channel partners are involved, we have determined that we are generally the principal in these arrangements. Sales to channel partners are generally made at a discount, and revenues are recorded at the discounted price once the revenue recognition criteria above have been met. In certain instances, we pay referral fees to our partners, which we have determined to be commensurate with our internal sales commissions, so we record these payments as sales commissions. Channel partners generally receive an order from an end customer prior to placing an order with us, and payment from channel partners is not contingent on the partner's collection from end customers.

### ***Deferred Commissions***

Sales commissions earned by our internal and external sales force are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions for new revenue contracts and additional sales to existing customers are deferred and recorded in deferred commissions, current and noncurrent in the consolidated balance sheets. Deferred commissions are amortized over the period of benefit, which we have determined to be generally four years. We determined the period of benefit by taking into consideration our customer contracts, technology and other factors. Deferred commissions are amortized consistent with the pattern of revenue recognition for each performance obligation for contracts for which the commissions paid were earned. We include amortization of deferred commissions in sales and marketing expense in the consolidated statements of operations. We periodically review the carrying amount of deferred commissions to determine whether events or changes in circumstances have occurred that could impact the period of benefit of these deferred costs.

### ***Capitalized Software Costs***

For software products sold to customers, we expense costs for the development of new software products and substantial enhancements to existing software products as incurred until technological feasibility has been established. Once technological feasibility has been established, we capitalize certain costs during the application development stage as part of intangible assets. We believe our current process for developing software sold to customers will be essentially completed concurrently with the establishment of technological feasibility and thus, no costs have been capitalized to date. Additionally, maintenance and training costs are expensed as incurred.

For software used internally, we capitalize qualifying costs during the application development stage and amortize those costs on a straight-line basis over the software's estimated useful life, which is generally three to four years. Costs related to preliminary project activities and post implementation activities, however, are expensed as incurred.

### ***Acquisitions, Goodwill and Identifiable Intangible Assets***

We account for acquired businesses using the acquisition method of accounting, which requires that the assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. The fair value of identifiable intangible assets is based on significant judgments and estimates made by management. We typically engage third-party valuation appraisal firms to assist in determining the fair values and useful lives of the assets acquired. Such valuations and useful life determinations require us to make significant estimates and assumptions. These estimates and assumptions are based on historical experience and information obtained from the management of the acquired companies, and also include, but are not limited to, future expected cash flows earned from the product-related technology and discount rates applied in determining the present value of those cash flows. Unanticipated events and circumstances may occur that could affect the accuracy or validity of such assumptions, estimates or actual results.

Goodwill represents the excess of the purchase price over the fair value of net assets acquired in business combinations using the acquisition method of accounting, which requires that the assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. We evaluate goodwill for impairment at least annually in the fourth quarter of each year, and as events occur or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Our test for goodwill impairment starts with a qualitative assessment to determine whether it is necessary to perform a quantitative goodwill impairment test. If qualitative factors indicate that the fair value of the reporting unit is more likely than not less than its carrying amount, then a quantitative goodwill impairment test is performed. Under the quantitative impairment test, if the carrying amount of the reporting unit exceeds its fair value, then an impairment loss is recognized in an amount equal to that excess, not to exceed the total amount of goodwill.

We record acquired in-process research and development as indefinite-lived intangible assets. Purchased intangible assets with indefinite lives are not amortized but assessed for potential impairment annually and when events or circumstances indicate that their carrying amounts might be impaired.

We review long-lived assets, including property and equipment and finite-lived intangible assets, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Such events and changes may include significant changes in performance relative to expected operating results, significant changes in asset use, significant negative industry or economic trends and changes in our business strategy. An impairment loss is recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount.

### ***Stock-Based Compensation***

We recognize stock-based compensation expense in accordance with the provisions of Accounting Standards Codification 718, *Compensation — Stock Compensation* ("ASC 718"). ASC 718 requires compensation expense for all stock-based compensation awards made to employees and directors to be measured and recognized based on the grant date fair value of the awards. Stock-based compensation expense for time-based awards is determined based on the grant-date fair value and is recognized on a straight-line basis over the requisite service period of the award, which is typically the vesting term of the award. Stock-based compensation expense for awards subject to market and performance conditions is determined based on the grant-date fair value and is recognized on a graded vesting basis over the term of the award once it is probable that the performance conditions will be met.

Stock-based compensation expense is recognized net of forfeitures. On January 1, 2018, we elected to adopt Accounting Standards Update No. 2016-09, *Compensation — Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* ("ASU 2016-09"). Prior to the adoption of ASU 2016-09, we estimated forfeiture rates annually using our historical experience of forfeited awards and subsequently adjusted for actual forfeitures at each vesting date. After the adoption of ASU 2016-09, we recognize forfeitures as they occur. Adoption of this provision on January 1, 2018 resulted in a cumulative-effect adjustment to retained earnings of \$38 thousand.

To estimate the grant date fair value of our time-based awards, we utilize the Black-Scholes option pricing model. For awards subject to performance and market conditions, we use a Monte Carlo simulation model, which utilizes multiple inputs to estimate the probability that market conditions will be achieved. Both models involve inherent uncertainties and require the following highly subjective assumptions as inputs:

- *Risk-free rate:* We base the risk-free interest rate on the implied yield currently available on U.S. Treasury securities with a remaining term commensurate with the estimated expected term.
- *Expected term:* For time-based awards, the estimated expected term of options granted is generally calculated as the vesting period plus the midpoint of the remaining contractual term, as we do not have sufficient historical information to develop reasonable expectations surrounding future exercise patterns and post-vesting employment termination behavior. For awards subject to market and performance conditions, the expected term represents the period of time that the options granted are expected to be outstanding.
- *Dividend yield:* We estimate the dividend yield at zero, as we do not currently issue dividends and have no plans to issue dividends in the foreseeable future.
- *Volatility:* Since we do not have a trading history of our common stock, expected volatility is estimated based on the historical volatility of peer companies over the period commensurate with the estimated expected term.
- *Fair value:* Prior to our IPO in September 2019, our common stock was not yet publicly traded and thus, the fair value of the shares of common stock was established by the Board using various inputs, including an independent valuation. Following the IPO, our common stock is traded in the public market, and accordingly we use the applicable closing price of our common stock to determine fair value.

The following assumptions were used for the time-based options that we granted during the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
Risk-free rate .....	—	2.6 % - 3.0 %	2.0 % - 2.2 %
Expected term .....	—	6.1 years	6.1 years
Dividend yield .....	—	—	—
Volatility .....	—	39 % - 42 %	38 % - 42 %
Weighted-average grant date fair value of options granted during the period .....	—	\$4.84	\$3.43

The following assumptions were used for the awards subject to performance and market conditions that we granted during the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
Risk-free rate .....	—	2.5 % - 2.8 %	1.5 % - 1.9 %
Expected term .....	—	1.7 - 3.3 years	3.8 - 4.5 years
Dividend yield .....	—	—	—
Volatility .....	—	45 % - 55 %	57 % - 62 %
Weighted-average grant date fair value of options granted during the period .....	—	\$2.29	\$2.29

For our RSUs, we calculate the fair value of each unit based on the estimated fair value of our common stock on the date of grant and subsequently record compensation expense over the vesting period using a straight-line method. Prior to the adoption of ASU 2016-09, we factored an estimated forfeiture rate in calculating compensation expense on RSUs and adjusted for actual forfeitures upon the vesting of each tranche of RSUs. After the adoption of ASU 2016-09, we account for forfeitures as they occur.

### **Long-Term Incentive Plan**

Our long-term incentive plan ("LTIP") could provide cash compensation to certain employees upon vesting if certain market and performance conditions are met and are thus liability-classified awards. Accordingly, we will remeasure the fair value of the LTIP awards at each reporting period until the awards are settled, which includes an evaluation of the probability of whether the awards meet vesting conditions.

### **Income Taxes**

We account for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for temporary differences between the financial statement basis and the income tax basis of assets and liabilities that will result in taxable or deductible amounts in the future. Our temporary differences result primarily from net operating losses, stock-based compensation, deferred revenue, intangible assets and accrued expenses. Deferred income tax asset and liability computations are based on enacted tax laws and rates anticipated to be in effect when these differences reverse. We then assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe that it is more likely than not that all or a portion of the deferred tax assets will not be realized, we establish a valuation allowance to reduce deferred income tax assets to the amounts expected to be realized.

We evaluate our tax positions taken or expected to be taken in the course of preparing our tax returns to determine whether the tax positions are more likely than not of being sustained by the applicable tax authority. Tax positions not deemed to meet the more likely than not threshold would not be recorded as a tax benefit or expense in the current period. We include interest and penalties related to income tax liabilities in our benefit (provision) for income taxes.



## **Recent Accounting Pronouncements**

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

### **Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

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

#### ***Foreign Currency Exchange Risk***

Our revenues and expenses are primarily denominated in U.S. dollars. For the years ended December 31, 2019, 2018 and 2017, we recorded a loss of \$0.9 million, a loss of \$2.0 million and a gain of \$0.7 million on foreign exchange transactions, respectively. To date, we have not entered into any hedging arrangements with respect to foreign currency risk or other derivative financial instruments, but we may do so in the future if our exposure to foreign currency should become more significant. For business conducted outside of the United States, we may have both revenue and costs incurred in the local currency of the subsidiary, creating a partial natural hedge. Changes to exchange rates therefore have not had a significant impact on the business to date. However, we will continue to reassess our foreign exchange exposure as we continue to grow our business globally. During the years ended December 31, 2019, 2018 and 2017, a hypothetical 10% change in foreign currency exchange rates applicable to our business would not have had a material impact on our consolidated financial statements.

#### ***Interest Rate Risk***

Our primary market risk exposure is changing LIBO-based interest rates. Interest rate risk is highly sensitive due to many factors, including U.S. monetary and tax policies, U.S. and international economic factors and other factors beyond our control. The interest rates applicable to revolving borrowings under the 2019 Credit Agreement are, at the borrower's option, either (i) a base rate, which is equal to the greater of (a) the Prime Rate, (b) the Federal Funds Effective Rate plus  $\frac{1}{2}$  of 1% and (c) the Adjusted LIBO Rate for a one month Interest Period (each term as defined in the 2019 Credit Agreement) plus 1%, or (ii) the Adjusted LIBO Rate equal to the LIBO Rate for the Interest Period multiplied by the Statutory Reserve Rate (each term as defined in the 2019 Credit Agreement), plus in the case of each of clauses (i) and (ii), the Applicable Rate. The Applicable Rate (i) for base rate loans ranges from 0.25% to 1.0% per annum and (i) for LIBO Rate loans ranges from 1.25% to 2.0% per annum, in each case, based on the Senior Secured Net Leverage Ratio (as defined in the 2019 Credit Agreement). The Adjusted LIBO Rate cannot be less than zero. Base rate borrowings may only be made in dollars. The 2019 Credit Agreement also includes a fallback provision, which, subject to certain terms and conditions, provides for a replacement of the LIBO Rate with (x) one or more SOFR-based rates or (y) any other alternative benchmark rate giving consideration to any evolving or then existing conventions for similar U.S. dollar denominated syndicated credit facilities.

At December 31, 2019, we had total outstanding debt of \$52.2 million under our 2019 Revolving Credit Facility. Based on the amounts outstanding, a 100-basis point increase or decrease in market interest rates over a twelve-month period would result in a change to interest expense of \$0.5 million.

#### ***Inflation Risk***

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

## Item 8. Financial Statements and Supplementary Data

### INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	<b>Page</b>
Report of Independent Registered Public Accounting Firm .....	86
Consolidated Balance Sheets .....	87
Consolidated Statements of Operations .....	88
Consolidated Statements of Comprehensive Income (Loss) .....	89
Consolidated Statements of Stockholders' Equity .....	90
Consolidated Statements of Cash Flows .....	91
Notes to Consolidated Financial Statements .....	92

## **Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Stockholders of Ping Identity Holding Corp.

### ***Opinion on the Financial Statements***

We have audited the accompanying consolidated balance sheets of Ping Identity Holding Corp. and its subsidiaries (the "Company") as of December 31, 2019 and 2018, and the related consolidated statements of operations, of comprehensive income (loss), of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2019, including the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America.

### ***Basis for Opinion***

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements 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 of these consolidated financial statements 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.

Our audits 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. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP  
Denver, Colorado  
March 4, 2020

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

**PING IDENTITY HOLDING CORP.**  
**CONSOLIDATED BALANCE SHEETS**  
(In thousands, except share amounts)

	December 31, 2019	December 31, 2018
<b>Assets</b>		
Current assets:		
Cash and cash equivalents . . . . .	\$ 67,637	\$ 83,499
Accounts receivable, net of allowances of \$873 and \$455 at December 31, 2019 and December 31, 2018, respectively . . . . .	67,642	50,108
Contract assets, current . . . . .	70,031	53,435
Deferred commissions, current . . . . .	5,814	3,746
Prepaid expenses . . . . .	12,768	8,508
Other current assets . . . . .	3,774	2,136
Total current assets . . . . .	<u>227,666</u>	<u>201,432</u>
Noncurrent assets:		
Property and equipment, net . . . . .	11,183	5,630
Goodwill . . . . .	417,696	417,696
Intangible assets, net . . . . .	187,868	207,043
Contract assets, noncurrent . . . . .	15,979	14,033
Deferred commissions, noncurrent . . . . .	7,856	7,287
Deferred income taxes, net . . . . .	2,755	1,829
Other noncurrent assets . . . . .	1,808	2,073
Total noncurrent assets . . . . .	<u>645,145</u>	<u>655,591</u>
Total assets . . . . .	<u>\$ 872,811</u>	<u>\$ 857,023</u>
<b>Liabilities and stockholders' equity</b>		
Current liabilities:		
Accounts payable . . . . .	\$ 1,118	\$ 1,766
Accrued expenses and other current liabilities . . . . .	9,302	7,906
Accrued compensation . . . . .	18,126	18,394
Deferred revenue, current . . . . .	45,446	31,493
Current portion of long-term debt . . . . .	—	2,500
Total current liabilities . . . . .	<u>73,992</u>	<u>62,059</u>
Noncurrent liabilities:		
Deferred revenue, noncurrent . . . . .	2,061	3,874
Long-term debt, net of current portion . . . . .	50,941	241,051
Deferred income taxes, net . . . . .	30,571	39,112
Other liabilities, noncurrent . . . . .	4,775	1,822
Total noncurrent liabilities . . . . .	<u>88,348</u>	<u>285,859</u>
Total liabilities . . . . .	<u>162,340</u>	<u>347,918</u>
Commitments and contingencies (Note 12)		
Stockholders' equity:		
Preferred stock; \$0.001 par value; 50,000,000 and 34,000,000 shares authorized at December 31, 2019 and December 31, 2018, respectively; no shares issued or outstanding at December 31, 2019 or December 31, 2018 . . . . .	—	—
Common stock; \$0.001 par value; 500,000,000 and 85,000,000 shares authorized at December 31, 2019 and December 31, 2018, respectively; 79,632,500 and 65,000,816 shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively . . . . .	80	65
Additional paid-in capital . . . . .	718,446	515,979
Accumulated other comprehensive loss . . . . .	(399)	(787)
Accumulated deficit . . . . .	<u>(7,656)</u>	<u>(6,152)</u>
Total stockholders' equity . . . . .	<u>710,471</u>	<u>509,105</u>
Total liabilities and stockholders' equity . . . . .	<u>\$ 872,811</u>	<u>\$ 857,023</u>

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

**PING IDENTITY HOLDING CORP.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(In thousands, except per share amounts)

	Year Ended December 31,		
	2019	2018	2017
Revenue:			
Subscription . . . . .	\$ 225,345	\$ 184,991	\$ 160,219
Professional services and other . . . . .	17,553	16,571	12,320
Total revenue . . . . .	242,898	201,562	172,539
Cost of revenue:			
Subscription (exclusive of amortization shown below) . . . . .	24,044	17,512	14,054
Professional services and other (exclusive of amortization shown below) . . . . .	15,322	12,703	9,155
Amortization expense . . . . .	16,338	14,396	12,626
Total cost of revenue . . . . .	55,704	44,611	35,835
Gross profit . . . . .	187,194	156,951	136,704
Operating expenses:			
Sales and marketing . . . . .	78,889	60,140	49,481
Research and development . . . . .	46,016	36,229	26,215
General and administrative . . . . .	38,293	28,355	20,202
Depreciation and amortization . . . . .	16,639	16,341	16,526
Total operating expenses . . . . .	179,837	141,065	112,424
Income from operations . . . . .	7,357	15,886	24,280
Other income (expense):			
Interest expense . . . . .	(12,914)	(15,837)	(19,277)
Loss on extinguishment of debt . . . . .	(4,532)	(9,785)	—
Other income (expense), net . . . . .	363	(335)	773
Total other income (expense) . . . . .	(17,083)	(25,957)	(18,504)
Income (loss) before income taxes . . . . .	(9,726)	(10,071)	5,776
Benefit (provision) for income taxes . . . . .	8,222	(3,375)	13,185
Net income (loss) . . . . .	<u>\$ (1,504)</u>	<u>\$ (13,446)</u>	<u>\$ 18,961</u>
Net income (loss) per share:			
Basic . . . . .	<u>\$ (0.02)</u>	<u>\$ (0.21)</u>	<u>\$ 0.29</u>
Diluted . . . . .	<u>\$ (0.02)</u>	<u>\$ (0.21)</u>	<u>\$ 0.29</u>
Weighted-average shares used in computing net income (loss) per share:			
Basic . . . . .	<u>68,906</u>	<u>65,002</u>	<u>64,984</u>
Diluted . . . . .	<u>68,906</u>	<u>65,002</u>	<u>64,991</u>

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

**PING IDENTITY HOLDING CORP.**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**  
(In thousands)

	Year Ended December 31,		
	2019	2018	2017
Net income (loss) .....	\$ (1,504)	\$ (13,446)	\$ 18,961
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments .....	388	(901)	333
Total other comprehensive income (loss) .....	388	(901)	333
Comprehensive income (loss) .....	<u>\$ (1,116)</u>	<u>\$ (14,347)</u>	<u>\$ 19,294</u>

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

**PING IDENTITY HOLDING CORP.**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
(In thousands, except share amounts)

	<b>Common Stock</b>		<b>Additional</b>	<b>Accumulated</b>	<b>Retained</b>	<b>Total</b>
	<b>Shares</b>	<b>Amount</b>	<b>Paid-in</b>	<b>Other</b>	<b>Earnings</b>	<b>Stockholders'</b>
			<b>Capital</b>	<b>Comprehensive</b>	<b>(Accumulated</b>	<b>Equity</b>
				<b>Income (Loss)</b>	<b>Deficit)</b>	
<b>Balances at December 31, 2016 .</b>	64,978,418	\$ 65	\$ 510,544	\$ (219)	\$ (11,629)	\$ 498,761
Net income . . . . .	—	—	—	—	18,961	18,961
Stock-based compensation . . . . .	—	—	2,524	—	—	2,524
Exercise of stock options . . . . .	12,920	—	101	—	—	101
Vesting of restricted stock . . . . .	5,313	—	—	—	—	—
Foreign currency translation adjustments, net of tax . . . . .	—	—	—	333	—	333
<b>Balances at December 31, 2017 .</b>	64,996,651	65	513,169	114	7,332	520,680
Cumulative-effect adjustment for adoption of ASU 2016-09 . . . . .	—	—	38	—	(38)	—
Net loss . . . . .	—	—	—	—	(13,446)	(13,446)
Stock-based compensation . . . . .	—	—	2,848	—	—	2,848
Vesting of restricted stock . . . . .	10,625	—	—	—	—	—
Repurchase of common stock . . . . .	(6,460)	—	(76)	—	—	(76)
Foreign currency translation adjustments, net of tax . . . . .	—	—	—	(901)	—	(901)
<b>Balances at December 31, 2018 .</b>	65,000,816	65	515,979	(787)	(6,152)	509,105
Net loss . . . . .	—	—	—	—	(1,504)	(1,504)
Issuance of common stock upon initial public offering, net of underwriting discounts and commissions and offering costs . . . . .	14,375,000	15	194,564	—	—	194,579
Stock-based compensation . . . . .	—	—	6,332	—	—	6,332
Exercise of stock options . . . . .	199,522	—	1,571	—	—	1,571
Vesting of restricted stock . . . . .	57,162	—	—	—	—	—
Foreign currency translation adjustments, net of tax . . . . .	—	—	—	388	—	388
<b>Balances at December 31, 2019 .</b>	<u>79,632,500</u>	<u>\$ 80</u>	<u>\$ 718,446</u>	<u>\$ (399)</u>	<u>\$ (7,656)</u>	<u>\$ 710,471</u>

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

**PING IDENTITY HOLDING CORP.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(In thousands)

	Year Ended December 31,		
	2019	2018	2017
<b>Cash flows from operating activities</b>			
Net income (loss) . . . . .	\$ (1,504)	\$ (13,446)	\$ 18,961
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Loss on extinguishment of debt . . . . .	4,532	9,785	—
Depreciation and amortization . . . . .	32,977	30,737	29,152
Stock-based compensation expense . . . . .	6,332	2,848	2,524
Amortization of deferred commissions . . . . .	6,423	5,302	3,460
Amortization of deferred debt issuance costs . . . . .	679	889	1,372
Deferred taxes . . . . .	(9,379)	3,073	(13,286)
Other . . . . .	166	(440)	61
Changes in operating assets and liabilities:			
Accounts receivable . . . . .	(18,046)	(1,465)	(9,967)
Contract assets . . . . .	(18,542)	(6,806)	(22,171)
Deferred commissions . . . . .	(9,060)	(9,981)	(7,693)
Prepaid expenses and other current assets . . . . .	(6,586)	(5,770)	(218)
Other assets . . . . .	373	(763)	(31)
Accounts payable . . . . .	(624)	298	(34)
Accrued compensation . . . . .	(404)	6,070	(1,087)
Accrued expenses and other . . . . .	6,318	1,113	(3,824)
Deferred revenue . . . . .	12,140	1,442	6,204
Net cash provided by operating activities . . . . .	5,795	22,886	3,423
<b>Cash flows from investing activities</b>			
Purchases of property and equipment and other . . . . .	(8,696)	(3,437)	(2,519)
Capitalized software development costs . . . . .	(10,460)	(6,310)	(3,442)
Acquisition of Elastic Beam, net of cash acquired of \$0 . . . . .	—	(17,414)	—
Other investing activities . . . . .	(600)	500	—
Net cash used in investing activities . . . . .	(19,756)	(26,661)	(5,961)
<b>Cash flows from financing activities</b>			
Payment of Elastic Beam consideration and holdbacks . . . . .	(1,136)	—	—
Proceeds from initial public offering, net of underwriting discounts and commissions . . . . .	200,531	—	—
Payment of offering costs . . . . .	(5,164)	(493)	—
Proceeds from stock option exercises . . . . .	1,571	—	101
Repurchase of common stock . . . . .	—	(76)	—
Proceeds from long-term debt . . . . .	52,177	250,000	—
Issuance costs of long-term debt . . . . .	(1,249)	(5,994)	—
Payment of long-term debt . . . . .	(248,750)	(171,250)	—
Payment of debt extinguishment costs . . . . .	—	(5,085)	—
Net cash provided by (used in) financing activities . . . . .	(2,020)	67,102	101
Effect of exchange rates on cash and cash equivalents and restricted cash . . . . .	224	(653)	274
Net increase (decrease) in cash and cash equivalents and restricted cash . . . . .	(15,757)	62,674	(2,163)
<b>Cash and cash equivalents and restricted cash</b>			
Beginning of period . . . . .	84,143	21,469	23,632
End of period . . . . .	\$ 68,386	\$ 84,143	\$ 21,469
<b>Supplemental disclosures of cash flow information:</b>			
Cash paid for interest . . . . .	\$ 12,169	\$ 13,598	\$ 20,758
Cash paid for taxes . . . . .	1,073	284	198
Noncash investing and financing activities:			
Purchases of property and equipment, accrued but not yet paid . . . . .	\$ 218	\$ 77	\$ 367
Accruals related to the acquisition of Elastic Beam . . . . .	—	1,560	—
Offering costs, accrued but not yet paid . . . . .	295	833	—
<b>Reconciliation of cash and cash equivalents and restricted cash within the consolidated balance sheets to the amounts shown in the statements of cash flows above:</b>			
Cash and cash equivalents . . . . .	\$ 67,637	\$ 83,499	\$ 20,969
Restricted cash included in other noncurrent assets . . . . .	749	644	500
Total cash and cash equivalents and restricted cash . . . . .	\$ 68,386	\$ 84,143	\$ 21,469

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



**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. Overview and Basis of Presentation**

**Organization and Description of Business**

Ping Identity Holding Corp. and its wholly owned subsidiaries, referred to herein as the “Company,” is headquartered in Denver, Colorado with international locations principally in Canada, Australia, France, the United Kingdom, Israel and India. The Company, doing business as Ping Identity Corporation (“Ping Identity”), provides customers, employees and partners with secure access to any service, application or API, while also managing identity and profile data at scale.

**Basis of Presentation and Principles of Consolidation**

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated. The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (“GAAP”). All amounts are reported in U.S. dollars. Certain amounts as of and for the year ended December 31, 2017 have been reclassified to conform with current period presentation.

**Initial Public Offering**

On September 23, 2019, the Company closed its initial public offering (“IPO”) through which it issued and sold 12,500,000 shares of common stock at a price per share of \$15.00. Additionally, the Company registered 1,875,000 shares of common stock in connection with the underwriters’ overallotment option to purchase additional shares on the same terms and conditions. The underwriters’ overallotment option was exercised in full and closed on October 22, 2019.

In connection with the IPO, the Company raised \$194.6 million in net proceeds, after deducting underwriting discounts and commissions of \$15.1 million and offering expenses of \$5.9 million. On September 23, 2019, the Company used the net proceeds from the IPO to repay \$170.3 million of its outstanding debt and after the closing of the underwriters’ overallotment option to purchase additional shares, the Company repaid an additional \$26.1 million of its outstanding debt, as discussed in Note 7.

**Use of Estimates**

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates and assumptions reflected in these consolidated financial statements include, but are not limited to, establishing allowances for doubtful accounts, determining useful lives for finite-lived assets, assessing the recoverability of long-lived assets, determining the fair values of assets acquired and liabilities assumed in business combinations, accounting for income taxes and related valuation allowances against deferred tax assets, valuing stock option awards and assessing the probability of the awards meeting vesting conditions, recognizing revenue, determining the amortization period for deferred commissions and assessing the accounting treatment for commitments and contingencies. Management evaluates these estimates and assumptions on an ongoing basis and makes estimates based on historical experience and various other assumptions that are believed to be reasonable. Actual results may differ from these estimates.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**2. Summary of Significant Accounting Policies**

**Stock Split**

On September 5, 2019, the Company effected a 170-for-1 stock split of its issued and outstanding shares of common stock and made comparable and equitable adjustments to its equity awards in accordance with the terms of the awards. The par value of the common and preferred stock was not adjusted as a result of the stock split. Accordingly, all share and per share amounts for the periods presented in the accompanying consolidated financial statements and notes thereto have been adjusted retrospectively, where applicable, to reflect this stock split. In connection with the stock split, the Company's Board of Directors (the "Board") and stockholders approved the Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 85,000,000 shares (after giving effect to the stock split) to 500,000,000 shares and to increase the number of authorized shares of preferred stock from 34,000,000 shares (after giving effect to the stock split) to 50,000,000 shares.

**Offering Costs**

Prior to the IPO, the Company capitalized offering costs incurred in connection with the anticipated sale of common stock in the IPO, including legal, accounting, printing and other IPO-related costs. The balance of offering costs included within prepaid expenses and other current assets at December 31, 2018 was \$1.3 million. Upon completion of the IPO and the exercise of the underwriters' option to purchase additional shares, \$5.5 million and \$0.4 million, respectively, of offering costs were reclassified to stockholders' equity and recorded against the proceeds received by the Company.

**Segment and Geographic Information**

The Company operates in a single operating segment. Operating segments are defined as components of an enterprise for which discrete financial information is available and is regularly reviewed by the chief operating decision maker in order to make decisions regarding resource allocation and performance assessment. The Company has determined that its chief operating decision maker is its Chief Executive Officer. The Company's chief operating decision maker reviews the Company's financial information on a consolidated basis for purposes of allocating resources and evaluating financial performance. Since the Company operates in one operating segment, all required financial segment information can be found in the consolidated financial statements.

Revenue by geographic region is based on the delivery address of the customer, and is summarized by geographic area as follows:

	Year Ended December 31,		
	2019	2018 (in thousands)	2017
United States .....	\$ 188,283	\$ 154,609	\$ 130,135
International .....	54,615	46,953	42,404
Total revenue .....	<u>\$ 242,898</u>	<u>\$ 201,562</u>	<u>\$ 172,539</u>

Other than the United States, no other individual country exceeded 10% of total revenue for the years ended December 31, 2019, 2018 or 2017.

The Company's long-lived assets are composed of property and equipment, net, and are summarized by geographic area as follows:

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

	December 31,	
	2019	2018
	(in thousands)	
United States .....	\$ 10,015	\$ 4,388
International .....	1,168	1,242
Total property and equipment, net .....	<u>\$ 11,183</u>	<u>\$ 5,630</u>

Outside of the United States and Canada, no other individual country held greater than 10% of total long-lived assets at December 31, 2019 or 2018.

### **Foreign Currency**

The reporting currency of the Company is the U.S. dollar. The functional currency of each subsidiary is the applicable local currency. For the subsidiary where the U.S. dollar is the functional currency, foreign currency denominated monetary assets and liabilities are remeasured into U.S. dollars at current exchange rates and foreign currency denominated nonmonetary assets and liabilities are remeasured into U.S. dollars at historical exchange rates. Transactions denominated in currencies other than the subsidiaries' functional currencies are recorded based on the exchange rates at the time such transactions arise. Resulting gains and losses are recorded in other income (expense), net in the consolidated statements of operations in the period of occurrence.

The Company's foreign subsidiaries are translated from the applicable functional currency to the U.S. dollar using the average exchange rates during the reporting period, while assets and liabilities are translated at the period-end exchange rates. Resulting gains or losses from translating foreign currency are included in accumulated other comprehensive income (loss).

### **Cash and Cash Equivalents**

Cash consists of deposits with financial institutions whereas cash equivalents primarily consist of money market funds. The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

### **Accounts Receivable and Allowance for Doubtful Accounts**

Accounts receivable represent amounts owed to the Company by its customers that are recorded at the invoiced amount. The Company reports accounts receivable net of allowance for doubtful accounts. Management makes judgments and estimates of the probable loss related to uncollectible accounts receivable considering a number of factors including collection trends, prevailing and anticipated economic conditions, and specific customer credit risk. The Company's allowance for doubtful accounts activity has historically not been significant. Probable losses are recorded in general and administrative expense in the accompanying consolidated statements of operations. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote.

### **Concentrations of Credit Risk**

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash and cash equivalents on deposit at several financial institutions as well as accounts receivable. The Company deposits cash with high-credit-quality financial institutions, which, at times, may exceed federally insured amounts. The Company invests its cash equivalents in highly-rated money market funds. Additionally, the Company performs ongoing credit evaluations of its customers' financial condition and will limit the amount of credit as deemed necessary, but currently does not require collateral from customers.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

As of December 31, 2019 and 2018, no single customer represented greater than 10% of accounts receivable.

For the years ended December 31, 2019, 2018 and 2017, no single customer represented greater than 10% of revenue.

**Fair Value Measurements**

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. GAAP establishes a three-level valuation hierarchy for the disclosure of fair value measurements. The determination of the applicable level within the hierarchy of a particular asset or liability depends on the inputs used in its valuation as of the measurement date, and notably the extent to which the inputs are market-based (observable) or internally determined (unobservable). The three levels are defined as follows:

- *Level 1:* Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.
- *Level 2:* Observable inputs, other than Level 1 inputs, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- *Level 3:* Unobservable inputs reflecting the Company's own assumptions used to measure assets and liabilities at fair value and which require significant management judgment or estimation.

**Property and Equipment**

Property and equipment are stated at historical cost less accumulated depreciation. Maintenance, repairs and minor renewals are expensed as incurred.

Depreciation is computed using the straight-line method based on the following estimated useful lives:

Asset Type	Useful Life
Computer equipment . . . . .	3 years
Purchased computer software . . . . .	1 - 3 years
Furniture and fixtures . . . . .	3 - 5 years
Leasehold improvements . . . . .	Lesser of the lease term or 10 years
Other . . . . .	3 - 5 years

**Capitalized Software Costs**

Costs for the development of new software products sold to customers and substantial enhancements to existing software products sold to customers are expensed as incurred until technological feasibility has been established, at which time any additional costs are capitalized during the development stage and until the software is generally released. The Company believes its current process for developing software will be essentially completed concurrently with the establishment of technological feasibility; hence, no costs have been capitalized to date.

For development costs related to software to be used internally, the Company follows guidance of Accounting Standards Codification Topic 350-40, *Internal Use Software* ("ASC 350-40"). ASC 350-40 set forth the guidance for costs incurred for computer software developed or obtained for internal use

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

and requires companies to capitalize qualifying computer software costs that are incurred during the application development stage. These capitalized costs are included in intangible assets in the consolidated balance sheets and are amortized on a straight-line basis over the expected useful life of the software, which is estimated to be between three and four years. Costs related to preliminary project activities and post-implementation activities are expensed as incurred. For the years ended December 31, 2019, 2018 and 2017, the Company capitalized \$10.5 million, \$6.3 million and \$3.4 million, respectively, related to internal-use software costs.

The Company capitalizes the cost of software purchased from third-party vendors and has classified such costs as property and equipment in the consolidated balance sheets. These costs are amortized over their useful lives, which are primarily estimated to be three years.

### **Goodwill**

Goodwill represents the excess of the purchase price over the fair value of net assets acquired in business combinations using the acquisition method of accounting, which requires that the assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. The Company evaluates goodwill for impairment annually in the fourth quarter of each year and as events occur or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The Company's test for goodwill impairment starts with a qualitative assessment to determine whether it is necessary to perform a quantitative goodwill impairment test. If qualitative factors indicate that the fair value of the reporting unit is more likely than not less than its carrying amount, then a quantitative goodwill impairment test is performed. Under the quantitative impairment test, if the carrying amount of the reporting unit exceeds its fair value, then an impairment loss is recognized in an amount equal to that excess, not to exceed the total amount of goodwill. For purposes of the annual impairment test, the Company has determined it has one reporting unit. There was no impairment of goodwill recorded during the years ended December 31, 2019, 2018 or 2017.

### **Intangible Assets**

Intangible assets with finite lives arising from business combinations are initially recorded at fair value and amortized over their useful lives using the straight-line method. The estimated useful life for each acquired intangible asset class is as follows:

<b>Asset Type</b>	<b>Useful Life</b>
Developed technology .....	4 - 9 years
Customer relationships .....	9 - 13 years
Trade names .....	10 years
Product backlog .....	2 - 3 years
Non-compete agreements .....	3 years

The Company records acquired in-process research and development as indefinite-lived intangible assets. Purchased intangible assets with indefinite lives are not amortized but assessed for potential impairment annually and when events or circumstances indicate that their carrying amounts might be impaired. There was no impairment of indefinite-lived intangible assets recorded during the years ended December 31, 2019, 2018 or 2017. On completion of the related development projects, the in-process research and development assets are reclassified to developed technology and amortized over their estimated useful lives.

### **Impairment of Long-Lived Assets**

The Company reviews long-lived assets, including property and equipment and finite-lived intangible assets, for impairment whenever events or changes in business circumstances indicate that the carrying

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

amount of the assets may not be fully recoverable. Such events and changes may include significant changes in performance relative to expected operating results, significant changes in asset use, significant negative industry or economic trends and changes in the Company's business strategy. An impairment loss is recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. There were no events or changes in circumstances that indicated the Company's long-lived assets were impaired during the years ended December 31, 2019, 2018 or 2017.

**Deferred Debt Issuance Costs**

Issuance costs incurred to obtain debt financing are deferred and amortized to interest expense using the effective interest method over the contractual term of the debt. Total deferred debt issuance costs incurred by the Company were \$1.2 million, \$6.0 million and \$6.8 million related to the 2019 Credit Facilities, the 2018 Credit Facilities, and the 2016 Credit Facilities respectively (discussed in Note 7). The carrying value of deferred debt issuance costs was \$1.2 million and \$5.2 million at December 31, 2019 and 2018, respectively, which is included as a reduction to long-term debt in the accompanying consolidated balance sheets.

**Deferred Rent**

Certain of the Company's operating leases contain credits for tenant improvements, rent holidays and rent escalation clauses. For these leases, the Company recognizes the related rent expense on a straight-line basis. The difference between the amounts charged to expense and the rent paid is recorded as deferred lease costs and amortized over the lease term.

**Revenue Recognition**

The Company recognizes revenue under Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). Under ASC 606, the Company recognizes revenue when its customer obtains control of promised goods or services in an amount that reflects the consideration that the Company expects to receive in exchange for those goods or services. To determine the appropriate amount of revenue to be recognized as it fulfills its obligations under each of its agreements, the Company performs the following steps:

1. *Identification of the contract with a customer*

The Company contracts with its customers through order forms, which in some cases are governed by master sales agreements. The Company determines that it has a contract with a customer when the order form has been approved, each party's rights regarding the products or services to be transferred can be identified, the payment terms for the products or services can be identified, the Company has determined the customer has the ability and intent to pay and the contract has commercial substance. The Company applies judgment in determining the customer's ability and intent to pay, which is based on a variety of factors, including the customer's historical payment experience or, in the case of a new customer, credit, reputation and financial or other information pertaining to the customer. At contract inception, the Company evaluates whether two or more contracts should be combined and accounted for as a single contract and whether the combined or single contract includes more than one performance obligation.

2. *Determination of whether the goods or services in a contract comprise performance obligations*

Performance obligations promised in a contract are identified based on the products and services that will be transferred to the customer that are both (i) capable of being distinct, whereby the customer can benefit from a product or service either on its own or together with other resources

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

that are readily available from third parties or from the Company, and (ii) are distinct in the context of the contract, whereby the transfer of certain products or services is separately identifiable from other promises in the contract.

The Company sells its solutions through subscription-based contracts. The Company's subscriptions for solutions deployed on-premise within the customer's technology infrastructure are comprised of a term-based license and an obligation to provide support and maintenance, where the term-based license and the support and maintenance constitute separate performance obligations. The Company's SaaS subscriptions provide customers the right to access cloud-hosted software and support for the SaaS service, which the Company considers to be a single performance obligation. The Company also renews subscriptions for support and maintenance, which the Company considers to be a single performance obligation.

Professional services consist of consulting and training services. These services are distinct performance obligations from subscriptions and do not result in significant customization of the software.

**3. *Measurement of the transaction price***

The Company determines the transaction price based on the consideration that the Company expects to receive in exchange for transferring the promised goods or services to the customer. This transaction price is exclusive of amounts collected on behalf of third parties, such as sales tax and value-added tax. The Company does not offer refunds, rebates or credits to customers in the normal course of business, so the impact of variable consideration has not been material.

In instances where the timing of revenue recognition differs from the timing of invoicing, the Company has determined that its contracts generally do not include a significant financing component. The primary purpose of the Company's invoicing terms is to provide customers with a simple and predictable way to purchase the Company's subscriptions, not to provide customers with financing.

**4. *Allocation of the transaction price to separate performance obligations***

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. For contracts that contain multiple performance obligations, the Company allocates the transaction price to each performance obligation based on each obligation's relative standalone selling price ("SSP").

The SSP is determined based on the prices at which the Company separately sells the product, assuming the majority of these fall within a pricing range. In instances where SSP is not directly observable, such as when the Company does not sell the software license separately, the Company determines the SSP using information that may include market conditions and other observable inputs that can require significant judgment. There is typically a range of standalone selling prices for individual products and services based on a stratification of those products and services by quantity and other circumstances. If one of the performance obligations is outside of the SSP range, the Company determines SSP to be the nearest endpoint of the range.

**5. *Recognition of revenue when or as the Company satisfies each performance obligation***

Revenue is recognized at the time the related performance obligation is satisfied by transferring the promised product or service to the customer. The Company's software subscriptions include both upfront revenue recognition when the Company transfers control of the term-based license to the customer, as well as revenue recognized ratably over the contract period for support and maintenance based on the stand-ready nature of these subscription elements. Revenue for the

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

Company's SaaS products is recognized ratably over the contract period as the Company satisfies the performance obligation.

Professional services revenue provided on a time and materials basis is recognized as these services are performed. Revenue from training services and sponsorship fees is recognized on the date the services are complete.

The Company generates sales directly through its sales team as well as through its channel partners. Where channel partners are involved, the Company has determined that it is the principal in these arrangements. Sales to channel partners are generally made at a discount, and revenues are recorded at the discounted price once the revenue recognition criteria above have been met. In certain instances, the Company pays referral fees to its partners, which the Company has determined to be commensurate with internal sales commissions and thus records these payments as sales commissions. Channel partners generally receive an order from an end customer prior to placing an order with the Company, and payment from channel partners is not contingent on the partner's collection from end customers.

*Disaggregation of Revenue*

The following table presents revenue by category:

	Year Ended December 31,		
	2019	2018	2017
	(in thousands)		
Subscription term-based licenses:			
Multi-year subscription term-based licenses . . . . .	\$ 113,151	\$ 88,925	\$ 86,421
1-year subscription term-based licenses . . . . .	48,255	44,743	35,678
Total subscription term-based licenses . . . . .	161,406	133,668	122,099
Subscription SaaS and support and maintenance . . . . .	63,939	51,323	38,120
Professional services and other. . . . .	17,553	16,571	12,320
Total revenue . . . . .	<u>\$ 242,898</u>	<u>\$ 201,562</u>	<u>\$ 172,539</u>

*Contract Balances*

Contract assets represent amounts for which the Company has recognized revenue, pursuant to its revenue recognition policy, for contracts that have not yet been invoiced to customers where there is a remaining performance obligation, typically for multi-year arrangements. In multi-year agreements, the Company generally invoices customers on an annual basis on each anniversary of the contract start date. Amounts anticipated to be billed within one year of the balance sheet date are recorded as contract assets, current; the remaining portion is recorded as contract assets, noncurrent in the consolidated balance sheets. The change in the total contract asset balance relates to entering into new multi-year contracts and billing on existing contracts.

The opening and closing balances of contract assets were as follows:

	Year Ended December 31,		
	2019	2018	2017
	(in thousands)		
Beginning balance . . . . .	\$ 67,468	\$ 60,662	\$ 38,491
Ending balance. . . . .	86,010	67,468	60,662
Change . . . . .	<u>\$ 18,542</u>	<u>\$ 6,806</u>	<u>\$ 22,171</u>

Contract liabilities consist of customer billings in advance of revenue being recognized. The Company primarily invoices its customers for subscription arrangements annually in advance, though certain



**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

contracts require invoicing for the entire subscription in advance. Amounts anticipated to be recognized within one year of the balance sheet date are recorded as deferred revenue, current; the remaining portion is recorded as deferred revenue, noncurrent in the consolidated balance sheets.

The opening and closing balances of contract liabilities included in deferred revenue were as follows:

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
Beginning balance .....	\$ 35,367	\$ 33,810	\$ 27,606
Ending balance .....	47,507	35,367	33,810
Change .....	<u>\$ 12,140</u>	<u>\$ 1,557</u>	<u>\$ 6,204</u>

The change in deferred revenue relates primarily to invoicing customers and recognizing revenue in conjunction with the satisfaction of performance obligations. Revenue recognized during the years ended December 31, 2019, 2018 and 2017 that was included in the deferred revenue balances at the beginning of the respective periods was as follows:

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
Deferred revenue recognized as revenue .....	\$ 33,100	\$ 31,391	\$ 26,332

*Remaining Performance Obligations*

Revenue allocated to remaining performance obligations represents contracted revenue that has not yet been recognized, which includes deferred revenue and noncancelable amounts to be invoiced. As of December 31, 2019, the Company had \$135.6 million of transaction price allocated to remaining performance obligations, of which 89% is expected to be recognized as revenue over the next 24 months, with the remainder to be recognized thereafter.

**Deferred Commissions**

Sales commissions earned by the Company's internal and external sales force are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions for new contracts and additional sales to existing customers are deferred and recorded in deferred commissions, current and noncurrent in the Company's consolidated balance sheets. Deferred commissions are amortized over the period of benefit, which the Company has determined to be generally four years. The Company determined the period of benefit by taking into consideration its customer contracts, its technology and other factors. Deferred commissions are amortized consistent with the pattern of revenue recognition for each performance obligation for contracts for which the commissions were earned. The Company includes amortization of deferred commissions in sales and marketing expense in the consolidated statements of operations. The Company periodically reviews the carrying amount of deferred commissions to determine whether events or changes in circumstances have occurred that could impact the period of benefit of these deferred costs. The Company did not recognize an impairment of deferred commissions during the years ended December 31, 2019, 2018 or 2017.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

The following table summarizes the account activity of deferred commissions for the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
Beginning balance .....	\$ 11,033	\$ 6,354	\$ 2,121
Additions to deferred commissions .....	9,060	9,981	7,693
Amortization of deferred commissions .....	(6,423)	(5,302)	(3,460)
Ending balance .....	<u>\$ 13,670</u>	<u>\$ 11,033</u>	<u>\$ 6,354</u>
Deferred commissions, current .....	\$ 5,814	\$ 3,746	\$ 1,858
Deferred commissions, noncurrent .....	7,856	7,287	4,496
Total deferred commissions .....	<u>\$ 13,670</u>	<u>\$ 11,033</u>	<u>\$ 6,354</u>

### Research and Development

Research and development costs include direct and allocated expenses. Other than software development costs that qualify for capitalization as discussed above, research and development costs are expensed as incurred.

### Advertising Costs

The Company expenses advertising costs as incurred. Advertising expense is included within sales and marketing expense in the consolidated statements of operations. For the years ended December 31, 2019, 2018 and 2017, advertising expenses were \$1.9 million, \$1.5 million and \$1.2 million, respectively.

### Stock-Based Compensation

Stock-based compensation expense for time-based awards is determined based on the grant-date fair value, net of forfeitures, and is recognized on a straight-line basis over the requisite service period of the award, which is typically the vesting term of the award. Prior to the adoption of ASU 2016-09 on January 1, 2018, the Company estimated the forfeiture rate annually using its historical experience of forfeited awards. The Company then adjusted for actual forfeitures at each vesting date. After the adoption of ASU 2016-09, forfeitures are accounted for as they occur.

Stock-based compensation expense for awards subject to both performance and market conditions is determined based on the grant-date fair value and is recognized on a graded vesting basis over the term of the award once it is probable that the performance conditions will be met.

The fair value of each time-based option grant is estimated on the date of the grant using the Black-Scholes option pricing model. For awards subject to performance and market conditions, the Company uses a Monte Carlo simulation model, which utilizes multiple inputs to estimate the probability that market conditions will be achieved. Both models require highly subjective assumptions as inputs, including the following:

- *Risk-free rate:* The risk-free interest rate is based on the implied yield currently available on U.S. Treasury securities with a remaining term commensurate with the estimated expected term.
- *Expected term:* For time-based awards, the estimated expected term of options granted is generally calculated as the vesting period plus the midpoint of the remaining contractual term, as the Company does not have sufficient historical information to develop reasonable expectations surrounding future exercise patterns and post-vesting employment termination

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

behavior. For awards subject to market and performance conditions, the expected term represents the period of time that the options granted are expected to be outstanding.

- *Dividend yield:* The Company uses a dividend yield of zero, as it does not currently issue dividends and has no plans to issue dividends in the foreseeable future.
- *Volatility:* Since the Company does not have substantive trading history of its common stock, expected volatility is estimated based on the historical volatility of peer companies over the period commensurate with the estimated expected term.
- *Fair value:* Prior to the IPO, there was no public market for the Company's common stock, so the fair value of the shares of common stock was established by the Board using various inputs, including an independent valuation. Following the IPO, the Company's shares are traded in the public market, and accordingly the Company uses the applicable closing price of its common stock to determine fair value.

The following assumptions were used for time-based options granted during the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
Risk-free rate .....	—	2.6 % - 3.0 %	2.0 % - 2.2 %
Expected term .....	—	6.1 years	6.1 years
Dividend yield .....	—	—	—
Volatility .....	—	39 % - 42 %	38 % - 42 %
Weighted-average grant date fair value of options granted during period .....	—	\$4.84	\$3.43

The following assumptions were used for awards subject to performance and market conditions that were granted during the years ended December 31, 2019, 2018 and 2017:

	Year Ended December 31,		
	2019	2018	2017
Risk-free rate .....	—	2.5 % - 2.8 %	1.5 % - 1.9 %
Expected term .....	—	1.7 - 3.3 years	3.8 - 4.5 years
Dividend yield .....	—	—	—
Volatility .....	—	45 % - 55 %	57 % - 62 %
Weighted-average grant date fair value of options granted during period .....	—	\$2.29	\$2.29

The Company calculates the fair value for restricted stock units ("RSUs") based on the estimated fair value of the Company's common stock on the date of grant and records compensation expense over the vesting period using a straight-line method. Prior to the adoption of ASU 2016-09, the Company factored an estimated forfeiture rate in calculating compensation expense on RSUs and adjusted for actual forfeitures upon the vesting of each tranche of RSUs. After the adoption of ASU 2016-09, forfeitures are accounted for as they occur.

## Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred income tax assets and liabilities are computed annually for temporary differences between the financial statement basis and the income tax basis of assets and liabilities that will result in taxable or deductible amounts in the future. The Company's temporary differences result primarily from net operating losses, stock compensation, deferred revenue, intangible assets and accrued expenses. Deferred income tax asset and liability

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

computations are based on enacted tax laws and rates applicable to the years in which the differences are expected to affect taxable income. A valuation allowance is established when necessary to reduce deferred income tax assets to the amounts expected to be realized.

The Company evaluates the tax positions taken or expected to be taken in the course of preparing the Company's tax returns to determine whether the tax positions are more likely than not of being sustained by the applicable tax authority. Tax positions not deemed to meet the more likely than not threshold would not be recorded as a tax benefit or expense in the current year. Interest and penalties related to income tax liabilities are included in the benefit (provision) for income taxes.

**Net Income (Loss) Per Share**

Basic net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of shares of common stock outstanding during the period. Diluted net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of shares of common stock outstanding during the period, plus the dilutive effects of RSUs and stock options. Dilutive shares of common stock are determined by applying the treasury stock method.

**Recent Accounting Pronouncements**

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)* ("ASU 2016-02"), which supersedes the guidance in topic ASC 840, *Leases*. The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for similar to existing guidance for operating leases today. The FASB has also issued several ASUs to provide implementation guidance relating to ASU 2016-02, including ASU 2017-13, ASU 2018-10, ASU 2018-11, ASU 2018-20 and ASU 2019-01, all of which the Company will consider when evaluating the impact of ASU 2016-02. The new leasing guidance is effective for fiscal years beginning after December 15, 2020 and interim periods within fiscal years beginning after December 15, 2021. Early adoption is permitted. The Company expects to adopt ASU 2016-02 on January 1, 2020 using the modified retrospective transition approach through a cumulative-effect adjustment in the first quarter of 2020. Based on the Company's current operating lease portfolio, it estimates that it will recognize right-of-use assets of approximately \$15 million and lease liabilities of approximately \$19 million. The Company is continuing to evaluate the impact of ASU 2016-02, so the estimates are subject to change. The Company does not believe that ASU 2016-02 will have a material impact on its consolidated statements of operations and cash flows.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13") and a subsequent amendment to the initial guidance (ASU 2018-19), which change the impairment model for most financial assets. The new model uses a forward-looking expected loss method, which will generally result in earlier recognition of allowances for losses. ASU 2016-13 is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, though early adoption is permitted. The Company is currently evaluating the impact of the adoption of this standard on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"), which improves the disclosure requirements for fair value measurements. The updated guidance is effective for all entities for fiscal years beginning after December 15, 2019 and interim periods therein. Early adoption is permitted. Further, an entity is permitted to early adopt any removed or modified

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

disclosures upon the issuance of ASU 2018-13 while delaying the adoption of the additional disclosures until their effective date. The Company will adopt ASU 2018-13 in the first quarter of 2020 and does not expect it to have a material impact on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles — Goodwill and Other — Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* ("ASU 2018-15"), which requires implementation costs incurred by customers in a cloud computing arrangement to be deferred over the noncancelable term of the cloud computing arrangement plus any optional renewal periods that (1) are reasonably certain to be exercised by the customer, or (2) for which exercise of the renewal option is controlled by the cloud service provider. The effective date of this pronouncement is for fiscal years beginning after December 15, 2020 and interim periods within annual periods beginning after December 15, 2021, though early adoption is permitted. The Company is currently evaluating the impact of this pronouncement on its consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), which simplifies the accounting for income taxes, eliminates certain exceptions to the general principles in Topic 740 and clarifies certain aspects of the current guidance to improve consistent application among reporting entities. ASU 2019-12 is effective for fiscal years beginning after December 15, 2021 and interim periods within annual periods beginning after December 15, 2022, though early adoption is permitted, including adoption in any interim period for which financial statements have not yet been issued. The Company is currently evaluating the impact of ASU 2019-12 on its consolidated financial statements.

**3. Fair Value of Financial Instruments**

The Company invests primarily in money market funds, which are measured and recorded at fair value on a recurring basis and are classified within Level 1 of the fair value hierarchy because they are valued based on quoted market prices in active markets. The fair value of these financial instruments were as follows:

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Cash and cash equivalents:				
Money market funds . . . . .	\$ 47,858	\$ —	\$ —	\$ 47,858
	December 31, 2018			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Cash and cash equivalents:				
Money market funds . . . . .	\$ 57,974	\$ —	\$ —	\$ 57,974

The carrying amounts of the Company's accounts receivable, accounts payable and other current liabilities approximate their fair values due to their short maturities. The carrying value of the Company's long-term debt approximates its fair value based on Level 2 inputs as the principal amounts outstanding are subject to variable interest rates that are based on market rates (see Note 7).

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**4. Property and Equipment**

Property and equipment consisted of the following:

	December 31,	
	2019	2018
	(in thousands)	
Computer equipment.....	\$ 5,729	\$ 4,218
Furniture and fixtures .....	3,757	1,920
Purchased computer software .....	785	450
Leasehold improvements .....	7,086	2,868
Other .....	448	363
Property and equipment, gross .....	17,805	9,819
Less: Accumulated depreciation .....	(6,622)	(4,189)
Property and equipment, net .....	<u>\$ 11,183</u>	<u>\$ 5,630</u>

Depreciation expense for the years ended December 31, 2019, 2018 and 2017 was \$3.1 million, \$2.2 million and \$1.9 million, respectively.

**5. Business Combinations**

**Elastic Beam Inc. Acquisition**

On April 5, 2018, Ping Identity Corporation acquired 100% of the voting equity interest in Elastic Beam Inc., a Delaware Corporation ("Elastic Beam"). Elastic Beam is a machine learning/artificial intelligence API behavioral security software which detects, reports and stops cyberattacks on data and applications via APIs. The purpose of this acquisition was to expand the Company's capabilities in identity security, particularly with regard to artificial intelligence.

The total purchase price was \$19.0 million, which includes up-front cash consideration of \$17.4 million that was funded with existing cash resources, and \$1.6 million, of which \$1.1 million and \$0.5 million is payable on the first and second anniversary of the acquisition, respectively. During the year ended December 31, 2019, the Company paid the first anniversary payment of \$1.1 million.

\$4.8 million and \$4.2 million of contingent compensation is payable on the first and second anniversary of the acquisition, respectively, contingent on certain individuals remaining employed as of those dates. As these payments are subject to the continued employment of those individuals, they will be recognized through compensation expense as incurred. During the year ended December 31, 2019, the Company paid the first anniversary payment of \$4.8 million.

The following table summarizes the allocation of the purchase price, based on the estimated fair value of the assets acquired and liabilities assumed at the acquisition date:

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

	<u>April 5, 2018</u>	<u>Useful Life</u>
	<u>(in thousands)</u>	
<b>Fair value of net assets acquired</b>		
In process research and development .....	\$ 3,006	Indefinite
Goodwill .....	15,972	Indefinite
Deferred tax asset .....	108	
Other assets .....	3	
Total assets acquired .....	<u>19,089</u>	
Deferred revenue .....	<u>(115)</u>	
Total liabilities assumed .....	<u>(115)</u>	
Net assets acquired .....	<u>\$ 18,974</u>	

Goodwill is primarily attributable to the workforce acquired and the expected synergies arising from integrating Elastic Beam's behavioral security software with the Company's existing security platform. None of the goodwill is deductible for tax purposes. The Company incurred \$0.6 million of acquisition-related expenses in conjunction with the Elastic Beam acquisition which are included in general and administrative expenses on the consolidated statements of operations for the year ended December 31, 2018.

**Additional Acquisition Related Information**

The operating results of Elastic Beam are included in the Company's consolidated statements of operations from the date of acquisition. Revenue and earnings of Elastic Beam since the date of acquisition and pro forma results of operations have not been prepared because the effect of the acquisition was not material to the consolidated statements of operations.

**6. Goodwill and Intangible Assets**

The changes in the carrying amount of the Company's goodwill balance were as follows:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
	<u>(in thousands)</u>	
Beginning balance .....	\$ 417,696	\$ 401,724
Additions to goodwill related to acquisitions .....	<u>—</u>	<u>15,972</u>
Ending balance .....	<u>\$ 417,696</u>	<u>\$ 417,696</u>

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

The Company's intangible assets as of December 31, 2019 were as follows:

	<b>December 31, 2019</b>		
	<b>Gross Amount</b>	<b>Accumulated Amortization (in thousands)</b>	<b>Net Carrying Value</b>
Developed technology .....	\$ 107,938	\$ (42,260)	\$ 65,678
Customer relationships .....	94,875	(26,205)	68,670
Trade names .....	56,640	(19,754)	36,886
Capitalized internal-use software .....	21,881	(6,375)	15,506
Other intangible assets .....	1,077	(535)	542
Total intangible assets subject to amortization .....	282,411	(95,129)	187,282
In-process research and development .....	586	—	586
Total intangible assets .....	<u>\$ 282,997</u>	<u>\$ (95,129)</u>	<u>\$ 187,868</u>

The Company's intangible assets as of December 31, 2018 were as follows:

	<b>December 31, 2018</b>		
	<b>Gross Amount</b>	<b>Accumulated Amortization (in thousands)</b>	<b>Net Carrying Value</b>
Developed technology .....	\$ 107,938	\$ (29,433)	\$ 78,505
Customer relationships .....	94,875	(18,702)	76,173
Trade names .....	56,436	(14,084)	42,352
Product backlog .....	2,185	(2,117)	68
Capitalized internal-use software .....	11,422	(2,995)	8,427
Non-compete agreements .....	1,224	(1,014)	210
Other intangible assets .....	1,055	(333)	722
Total intangible assets subject to amortization .....	275,135	(68,678)	206,457
In-process research and development .....	586	—	586
Total intangible assets .....	<u>\$ 275,721</u>	<u>\$ (68,678)</u>	<u>\$ 207,043</u>

Amortization expense for the years ended December 31, 2019, 2018 and 2017 was \$29.9 million, \$28.6 million and \$27.2 million, respectively. During each of the years ended December 31, 2018 and 2017, \$3.0 million of in-process research and development was reclassified to developed technology when ready for intended use.

As of December 31, 2019, expected amortization expense for intangible assets subject to amortization for the next five years is as follows:

<b>Year Ending December 31,</b>	<b>December 31, 2019 (in thousands)</b>
2020 .....	\$ 31,420
2021 .....	30,643
2022 .....	28,788
2023 .....	26,445
2024 .....	24,512
Thereafter .....	45,474
Total .....	<u>\$ 187,282</u>



**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**7. Debt**

In 2016, the Company entered into credit facilities with a consortium of lenders comprised of (a) a term loan in an initial principal amount of \$150.0 million, which was borrowed on June 30, 2016 and subsequently increased on August 3, 2016 by \$20.0 million (the "2016 Term Loan Facility"), and (b) a revolving line of credit in a principal committed amount of \$10.0 million (the "2016 Revolving Credit Facility" and, collectively with the 2016 Term Loan Facility, the "2016 Credit Facilities"). The 2016 Credit Facilities had a maturity date of June 30, 2021.

The 2016 Term Loan Facility bore interest at the option of the Company at a rate per annum equal to (a) an adjusted LIBO rate (with a floor of 1.00% per annum) plus an applicable margin of 9.25%, payable on the last day of the applicable interest period applicable thereto, or (b) the alternate base rate (with a floor of 2.00% per annum) plus an applicable margin of 8.25%, payable quarterly in arrears the last business day of each March, June, September and December. The 2016 Term Loan Facility was borrowed as a LIBO rate loan.

In conjunction with the 2016 Credit Facilities, the Company was required to comply with various financial debt covenants, including a recurring revenue leverage ratio of 2.1 to 1.0 beginning September 30, 2016 and decreasing quarterly to 1.3 to 1.0 on September 30, 2018, and a total leverage ratio of 8.3 to 1.0 beginning December 31, 2018 and decreasing quarterly to 2.4 to 1.0 on and after June 30, 2021. As of December 31, 2017, the Company was in compliance with all financial covenants.

In January 2018, the Company refinanced its outstanding debt. In connection with the refinancing, the Company entered into new credit facilities with a consortium of lenders comprised of (a) a term loan with a principal amount of \$250.0 million (the "2018 Term Loan Facility"), and (b) a revolving line of credit in a principal committed amount of \$25.0 million (the "2018 Revolving Credit Facility" and, collectively with the 2018 Term Loan Facility, the "2018 Credit Facilities"). The 2018 Term Loan Facility and 2018 Revolving Credit Facility had maturity dates of January 25, 2025 and January 25, 2023, respectively. Borrowings under the 2018 Credit Facilities were collateralized by substantially all of the assets of the Company.

There were no significant financial covenants to which the Company was required to comply in relation to the 2018 Term Loan Facility. The wholly owned indirect subsidiary, Ping Identity Corporation, as borrower under the 2018 Credit Facilities, was limited to declare dividends or make any payment on account of its capital stock to, directly or indirectly, fund a dividend or other distribution to Ping Identity Holding Corp. (the "Parent"), subject to limited exceptions, including (1) stock repurchases in an amount not to exceed the greater of \$1.5 million per year or 3.75% of consolidated EBITDA, with any unused amount being carried forward to future periods, (2) unlimited amounts subject to compliance with a 4.25 to 1.00 total leverage ratio giving pro forma effect to any distribution, (3) unlimited amounts up to 7% of the Parent's market capitalization and (4) payment of the Parent's overhead expenses.

In conjunction with entering into the 2018 Credit Facilities, the Company paid the remaining balance of the 2016 Term Loan Facility and terminated the 2016 Revolving Credit Facility, which resulted in a loss on extinguishment of debt of \$9.8 million, included in the consolidated statements of operations for the year ended December 31, 2018.

The 2018 Term Loan Facility bore interest at the option of the Company at a rate per annum equal to (a) an adjusted LIBO rate (with a floor of 1.00% per annum) plus an applicable margin of 3.75%, payable on the last day of the applicable interest period applicable thereto ("Eurodollar" loan), or (b) the alternate base rate (with a floor of 2.00% per annum) plus an applicable margin of 2.75%, payable quarterly in arrears the last business day of each March, June, September and December. The 2018 Term Loan Facility was borrowed as a Eurodollar loan.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

Beginning September 2018, 0.25% of the principal amount of the 2018 Term Loan Facility was payable quarterly. In connection with the closing of the IPO and the underwriters' exercise of the overallotment option as described in Note 1, the Company repaid \$196.4 million of the principal amount of the 2018 Term Loan Facility using the proceeds. Prior to paying down a portion of the 2018 Term Loan Facility, the Company had remaining deferred debt issuance costs of \$4.6 million. In connection with the debt repayments, the Company elected to proportionately write off a portion of its deferred debt issuance costs based on the percentage of the loan that was repaid. Accordingly, the Company incurred a loss on extinguishment of debt of \$3.6 million for the proportionate write off of deferred debt issuance costs, included in the consolidated statements of operations for the year ended December 31, 2019.

In December 2019, the Company refinanced its outstanding debt. In connection with the refinancing, Roaring Fork Intermediate, LLC and Ping Identity Corporation, each a wholly-owned subsidiary of Ping Identity Holding Corp., and certain of their subsidiaries, entered into a credit agreement (the "2019 Credit Agreement") with the financial institutions identified therein as lenders, including Bank of America, N.A., as administrative agent, and BOFA Securities, Inc. and RBC Capital Markets as joint lead arrangers. The 2019 Credit Agreement provides for a senior revolving line of credit in a principal committed amount of \$150.0 million (the "2019 Revolving Credit Facility"), with the option to request incremental term loan facilities in a minimum amount of \$10 million for each facility if certain conditions are met. The Company's obligations under the 2019 Credit Agreement are secured by substantially all of the assets of the Company, and borrowings under the 2019 Revolving Credit Facility may be used for working capital and other general corporate purposes, including for acquisitions permitted under the 2019 Credit Agreement.

The 2019 Credit Agreement contains certain customary events of default and customary representations and warranties and affirmative and negative covenants, including certain restrictions on the ability of the Company to incur additional indebtedness or guarantee indebtedness of others, to create liens on properties or assets, and to enter into certain asset and stock-based transactions. In addition, under the terms of the 2019 Credit Agreement, the Company must adhere to certain financial covenants, including (i) a senior secured net leverage ratio, which shall not be more than 3.50 to 1.00, provided that the maximum ratio shall be increased to 4.00 to 1.00 during a fiscal year in which a Material Acquisition (as defined in the 2019 Credit Agreement) has been consummated, and (ii) a consolidated interest coverage ratio, which shall not be less than 3.50 to 1.00. As of December 31, 2019, the Company was in compliance with all financial covenants.

The wholly owned indirect subsidiary, Ping Identity Corporation, as borrower under the 2019 Credit Agreement, is limited in its ability to declare dividends or make any payment on account of its capital stock to, directly or indirectly, fund a dividend or other distribution to Ping Identity Holding Corp. (as the Parent), subject to limited exceptions, including (1) stock repurchases from current or former employees, officers or directors in an amount not to exceed \$5 million, (2) unlimited amounts subject to compliance with its financial covenants for the most recently ended four quarters as well as a 6.00 to 1.00 total net leverage ratio for the most recently ended four quarters, both after giving pro forma effect to any distribution, (3) unlimited amounts up to the greater of \$19.5 million in the aggregate or 15% of EBITDA for the most recently ended four quarters, and (4) payment of certain of the Parent's overhead expenses.

The 2019 Revolving Credit Facility matures on December 12, 2024 and bears interest at the option of the Company at a rate per annum equal to either (i) a base rate, which is equal to the greater of (a) the prime rate, (b) the federal funds effective rate plus  $\frac{1}{2}$  of 1% and (c) the adjusted LIBO rate for a one month interest period plus 1%, or (ii) the adjusted LIBO rate equal to the LIBO rate for the interest period multiplied by the statutory reserve rate, plus in the case of each of clauses (i) and (ii), the Applicable Rate (as defined in the 2019 Credit Agreement), which ranges from (i) 0.25% to 1.0% per annum for base rate loans and (ii) 1.25% to 2.0% per annum for LIBO rate loans, in each case, depending on the senior secured net leverage ratio. The Company will also pay a commitment fee during the term of the 2019 Credit Agreement ranging from 0.20% to 0.35% of the average daily amount of the available

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

amount to be borrowed under the 2019 Credit Agreement per annum, based on the senior secured net leverage ratio.

Any borrowing under the 2019 Credit Agreement may be repaid, in whole or in part, at any time and from time to time without premium or penalty other than customary breakage costs, and any amounts repaid may be reborrowed. No mandatory prepayments will be required other than when borrowings and letter of credit usage exceed the aggregate commitment of all lenders.

In conjunction with entering into the 2019 Revolving Credit Facility, the Company paid all remaining balances of the 2018 Term Loan Facility and terminated the 2018 Revolving Credit Facility, which resulted in a loss on extinguishment of debt of \$0.9 million, included in the consolidated statements of operations for the year ended December 31, 2019.

The Company recognized \$12.2 million, \$14.9 million and \$17.9 million in interest expense in the years ended December 31, 2019, 2018 and 2017, respectively.

As of December 31, 2019 and 2018, the Company's outstanding long-term debt balance was \$50.9 million and \$241.1 million, respectively (net of the current portion of long-term debt of \$0.0 million and \$2.5 million, and debt issuance costs of \$1.2 million and \$5.2 million, respectively), which was included in long-term debt. Debt issuance costs are a direct deduction from the long-term debt liability and are amortized into interest expense over the contractual term of the borrowings using the effective interest method. During the years ended December 31, 2019, 2018 and 2017, the Company amortized \$0.7 million, \$0.9 million and \$1.4 million of debt issuance costs, respectively.

Future principal payments on outstanding borrowings as of December 31, 2019 are as follows:

<u>Year Ending December 31,</u>	<u>December 31, 2019</u> <u>(in thousands)</u>
2020 .....	\$ —
2021 .....	—
2022 .....	—
2023 .....	—
2024 .....	52,177
Thereafter .....	—
Total .....	<u>\$ 52,177</u>

## 8. Income Taxes

On December 22, 2017, the U.S. Tax Cuts and Jobs Act (the "Tax Act") was signed into law. The Tax Act significantly changed U.S. income tax law by, among other things, reducing the U.S. federal income tax rate from 35 percent to 21 percent, transitioning from a global tax system to a modified territorial tax system, and limiting the tax deduction for interest expense. The Company has included the impact of the Tax Act in its benefit (provision) for income taxes.

- *Reduction of U.S. federal corporate tax rate:* During the year ended December 31, 2017, the Company recorded an increase to its tax benefit of \$17.0 million for the estimated impact of revaluing its net deferred tax liability position in the U.S. at the new 21 percent corporate tax rate.
- *Transition tax:* During the year ended December 31, 2017, the Company recorded tax expense of \$1.2 million to reflect the impact of the tax on accumulated untaxed earnings and profits ("E&P") of certain foreign affiliates.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

With regard to the new provisions for global intangible low-taxed income ("GILTI"), the Company is allowed to make an accounting policy choice of either (1) treating taxes due for GILTI as a current-period expense when incurred or (2) factoring such amounts into the Company's measurement of its deferred taxes. The Company has elected to treat the taxes due for GILTI as a current-period expense when incurred.

The amounts of income (loss) from continuing operations before income taxes was as follows:

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
United States .....	\$ (12,707)	\$ (12,488)	\$ 3,996
Foreign .....	2,981	2,417	1,780
Income (loss) before income taxes .....	<u>\$ (9,726)</u>	<u>\$ (10,071)</u>	<u>\$ 5,776</u>

The income taxes of foreign subsidiaries not included in the U.S. tax group are presented based on a separate return basis for each tax-paying entity.

The benefit (provision) for income taxes from continuing operations was as follows:

	Year Ended December 31,		
	2019	2018	2017
		(in thousands)	
<b>Current</b>			
Federal .....	\$ —	\$ (23)	\$ —
State .....	(711)	(55)	—
Foreign .....	(446)	(225)	(96)
Total current expense .....	<u>(1,157)</u>	<u>(303)</u>	<u>(96)</u>
<b>Deferred</b>			
Federal .....	3,266	1,416	14,501
State .....	5,280	(4,756)	(2,201)
Foreign .....	833	268	981
Total deferred benefit (expense) .....	<u>9,379</u>	<u>(3,072)</u>	<u>13,281</u>
Benefit (provision) for income taxes .....	<u>\$ 8,222</u>	<u>\$ (3,375)</u>	<u>\$ 13,185</u>

The benefit (provision) for income taxes from continuing operations differs from the provision determined by applying the U.S. statutory tax rate to pretax earnings as a result of the following:

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

	Year Ended December 31,					
	2019		2018		2017	
			(dollars in thousands)			
Statutory U.S. federal income taxes . . .	\$ 2,042	(21.0)%	\$ 2,115	(21.0)%	\$ (2,021)	(35.0)%
State income taxes, net of federal taxes . . . . .	482	(5.0)	405	(4.0)	(166)	(2.9)
Foreign taxes rate differential . . . . .	49	(0.5)	18	(0.2)	257	4.4
Rate changes - tax reform . . . . .	—	—	—	—	17,040	295.0
Rate changes - other . . . . .	2,726	(28.0)	(4,210)	41.8	(1,901)	(32.9)
Income tax credits . . . . .	1,036	(10.7)	536	(5.3)	1,358	23.5
Change in valuation allowance . . . . .	—	—	—	—	(533)	(9.2)
Deemed repatriation of untaxed foreign earnings . . . . .	—	—	—	—	(1,158)	(20.0)
Contingent deal consideration . . . . .	(610)	6.3	(985)	9.8	—	—
Meals and entertainment . . . . .	(826)	8.5	(706)	7.0	(519)	(9.0)
GILTI inclusion . . . . .	(820)	8.4	(338)	3.4	—	—
Acquisition costs . . . . .	—	—	(134)	1.3	—	—
Transaction costs . . . . .	116	(1.2)	—	—	—	—
Stock-based compensation . . . . .	293	(3.0)	—	—	—	—
Transportation costs . . . . .	(120)	1.2	—	—	—	—
State net operating loss adjustment . . .	—	—	—	—	746	12.9
Return to provision . . . . .	178	(1.8)	36	(0.4)	131	2.3
Other permanent items . . . . .	(95)	1.0	(159)	1.6	(45)	(0.8)
R&D credits . . . . .	4,642	(47.7)	—	—	—	—
Uncertain tax positions . . . . .	(920)	9.5	—	—	—	—
Other . . . . .	49	(0.5)	47	(0.5)	(4)	(0.1)
Benefit (provision) for income taxes . .	<u>\$ 8,222</u>	<u>(84.5)%</u>	<u>\$ (3,375)</u>	<u>33.5 %</u>	<u>\$ 13,185</u>	<u>228.2 %</u>

Undistributed earnings of foreign subsidiaries were \$13.9 million as of December 31, 2019, of which \$8.9 million was deemed to be repatriated at December 31, 2017, pursuant to the Tax Act. The deemed repatriation resulted in \$1.2 million of additional U.S. income tax expense. The Company considers the current earnings and any future foreign earnings to be indefinitely reinvested, and therefore does not record deferred taxes related to these earnings. Upon repatriation of earnings, in the form of dividends or otherwise, the Company would be subject to both U.S. income taxes (subject to a dividends received deduction) and withholding taxes payable to certain foreign jurisdictions. Withholding taxes of less than \$0.9 million would be payable upon remittance of all previously unremitted earnings at December 31, 2019.

The significant components of deferred tax assets and liabilities at December 31, 2019 and 2018 were as follows:

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

	December 31,	
	2019	2018
	(in thousands)	
<b>Deferred tax assets</b>		
Accruals and reserves .....	\$ —	\$ —
Fixed assets and intangible assets .....	380	130
Tax credits (net of uncertain tax position) .....	8,845	3,386
Deferred share-based compensation .....	2,642	1,525
Loss and other carryforwards .....	23,767	35,191
Other .....	1,433	720
Gross deferred tax assets .....	37,067	40,952
Valuation allowance .....	(1,812)	(1,812)
Net deferred tax asset .....	35,255	39,140
<b>Deferred tax liabilities</b>		
Accruals and reserves .....	(508)	(138)
Fixed assets and intangible assets .....	(47,871)	(53,849)
Deferred revenue .....	(14,024)	(21,896)
Other, net .....	(668)	(540)
Gross deferred tax liabilities .....	(63,071)	(76,423)
Net deferred tax liability .....	\$ (27,816)	\$ (37,283)

The components giving rise to the net deferred income tax liabilities detailed above have been included in the accompanying consolidated balance sheet at December 31, 2019 and 2018 as follows:

	December 31,	
	2019	2018
	(in thousands)	
Noncurrent deferred tax assets .....	\$ 2,755	\$ 1,829
Noncurrent deferred tax liabilities .....	(30,571)	(39,112)
Net deferred tax liability .....	\$ (27,816)	\$ (37,283)

At December 31, 2019, the Company had U.S. net operating loss carryforwards of \$95.4 million and U.S. research and development ("R&D") credit carryforwards of \$5.3 million. If not used, the U.S. net operating loss and R&D credit carryforwards will begin expiring in 2021 and 2024, respectively. Additionally, the Company had \$3.7 million of foreign R&D credit carryforwards at December 31, 2019 which, if not used, will begin expiring in 2030. Section 382 and Section 383 of the Internal Revenue Code contain provisions that limit the utilization of net operating loss and tax credit carryforwards if there has been a change of ownership. The Company has completed an analysis of the historical changes in ownership, and has determined that \$2.5 million of the net operating loss carryforward at December 31, 2019 will expire prior to utilization due to the Section 382 limitation. As such, the Company has established a valuation allowance against the deferred tax asset related to these net operating loss carryforwards. Additionally, a change in ownership could be triggered by subsequent sales of securities by the Company or its shareholders resulting in a limitation of the net operating loss and tax credit carryforwards in the future.

The Company has determined that it is more likely than not it will be unable to realize the benefit of its deferred tax assets for R&D credit carryforwards in the U.S. prior to their expiration and has, therefore, established a valuation allowance offset against the deferred tax asset. A valuation allowance has not been established against the net deferred tax assets attributed to foreign jurisdictions. The valuation allowance for deferred tax assets was \$1.8 million at December 31, 2019 and 2018. Changes in the valuation allowance for deferred tax assets during the years ended December 31, 2019, 2018 and 2017 were as follows:

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

	2019	December 31, 2018 (in thousands)	2017
Valuation allowance at beginning of year . . . . .	\$ 1,812	\$ 1,812	\$ 1,279
Increases recorded to income tax provision . . . . .	—	—	533
Valuation allowance at end of year . . . . .	<u>\$ 1,812</u>	<u>\$ 1,812</u>	<u>\$ 1,812</u>

The Company files income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. The tax years for the Company that remain subject to examination are:

<b>Jurisdiction</b>	<b>Years Under Examination</b>	<b>Additional Open Years</b>
U.S. Federal . . . . .	None	2016 - 2018
United Kingdom . . . . .	None	2014 - 2018
Canada . . . . .	None	2014 - 2018
Australia . . . . .	None	2014 - 2018
Israel . . . . .	None	2015 - 2018
France . . . . .	None	2017 - 2018

Additionally, U.S. federal net operating losses and other foreign tax credits carried forward into open years may be subject to adjustment. The Company has evaluated its tax positions and has determined that it has certain unrecognized tax benefits. Accordingly, as of December 31, 2019 and 2018, the Company has reduced certain tax attributes to the extent they would be utilized to offset an unrecognized tax benefit. Changes in the unrecognized tax benefits during the years ended December 31, 2019, 2018 and 2017 were as follows:

	2019	December 31, 2018 (in thousands)	2017
Unrecognized tax benefits at beginning of the year . . . . .	\$ 211	\$ 292	\$ 706
Current year increase . . . . .	920	—	—
Statute expiration . . . . .	(41)	(78)	(365)
Currency . . . . .	7	(13)	11
Tax rate changes . . . . .	(6)	10	(60)
Unrecognized tax benefits at end of the year . . . . .	<u>\$ 1,091</u>	<u>\$ 211</u>	<u>\$ 292</u>

The Company does not currently anticipate significant changes in its unrecognized tax benefits over the next 12 months. No interest or penalties for the Company's unrecognized tax benefits were recorded for the years ended December 31, 2019, 2018 or 2017.

## 9. Stockholders' Equity

On June 30, 2016, the Board and stockholders approved the Second Amended and Restated Certificate of Incorporation authorizing the Company to issue up to 85,000,000 shares of common stock and 34,000,000 shares of preferred stock (each after giving effect to the stock split as described in Note 2), each with a par value of \$0.001 per share. On September 5, 2019 in connection with the stock split, the Company's Board and stockholders approved the Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 85,000,000 shares to 500,000,000 shares and to increase the number of authorized shares of preferred stock from 34,000,000 shares to 50,000,000 shares. The par value of the common and preferred stock remained at \$0.001 per share.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Common stock**

The Company's Third Amended and Restated Certificate of Incorporation, which the Board approved on September 18, 2019 and the stockholders approved on September 23, 2019, authorizes issuance of up to 500,000,000 shares of common stock with a par value of \$0.001 per share. The common stock confers upon its holders the right to vote on all matters to be voted on by the stockholders of the Company (with each share representing one vote) and to ratably participate in any distribution of dividends or payments in the event of liquidation or dissolution on a per share basis. The rights of the holders of common stock will be subject to, and may be adversely affected by, the rights of holders of any preferred stock that may be issued in the future.

As described in Note 1, the Company issued and sold 12,500,000 shares of common stock to the public in conjunction with the closing of its IPO on September 23, 2019. The underwriters' overallotment option was exercised in full and closed on October 22, 2019, where the Company issued and sold an additional 1,875,000 shares of common stock to the public.

**Preferred stock**

As of December 31, 2019, the Company was authorized, without stockholder approval but subject to any limitations prescribed by law, to issue up to an aggregate of 50,000,000 shares of preferred stock (in one or more series or classes), to create additional series or classes of preferred stock and to establish the number of shares to be included in such series or class. As of December 31, 2019, the Board was also authorized to increase or decrease the number of shares of any series or class subsequent to the issuance of shares of that series or class. Each series will have such rights, preferences and limitations, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences as determined by the Board. As of December 31, 2019 and December 31, 2018, the Company did not have any shares of preferred stock outstanding and currently has no plans to issue shares of preferred stock.

**10. Stock-Based Compensation**

On June 30, 2016, the Company established the 2016 Stock Option Plan (the "2016 Plan"). The 2016 Plan provides for grants of restricted stock units and stock options to executives, directors, consultants, advisors and key employees which allow option holders to purchase stock in Ping Identity Holding Corp. The Company has 6,800,000 shares of common stock reserved for issuance under the 2016 Plan.

In conjunction with the closing of the IPO on September 23, 2019, the Company adopted the Ping Identity Holding Corp. Omnibus Incentive Plan (the "2019 Omnibus Incentive Plan"). The 2019 Omnibus Incentive Plan provides for grants of (i) stock options, (ii) stock appreciation rights, (iii) restricted shares, (iv) performance awards, (v) other share-based awards and (vi) other cash-based awards to eligible employees, non-employee directors and consultants of the Company. As of December 31, 2019, the maximum number of shares of common stock available for issuance under the 2019 Omnibus Incentive Plan was 9,300,000 shares.

Stock-based compensation expense for all equity arrangements for the years ended December 31, 2019, 2018 and 2017 was as follows:



**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

	Year Ended December 31,		
	2019	2018 (in thousands)	2017
Subscription cost of revenue .....	\$ 141	\$ —	\$ —
Professional services and other cost of revenue .....	80	—	—
Sales and marketing .....	1,407	726	626
Research and development .....	1,364	342	297
General and administrative. ....	3,340	1,780	1,601
Total.....	<u>\$ 6,332</u>	<u>\$ 2,848</u>	<u>\$ 2,524</u>

**Restricted Stock Units**

The Company grants RSUs that generally vest over one to four years. The weighted-average grant-date fair value of RSUs granted during the years ended December 31, 2019, 2018 and 2017 was \$16.49, \$9.39 and \$7.85, respectively. The total intrinsic value of RSUs vested during the years ended December 31, 2019, 2018 and 2017 was \$0.7 million, \$0.1 million and \$0.0 million, respectively. As of December 31, 2019, there was \$21.5 million of total unrecognized compensation, which will be recognized over the remaining weighted-average vesting period of 3.6 years using the straight-line method. A summary of the status of the Company's unvested RSUs and activity for the year ended December 31, 2019 is as follows:

	Shares	Weighted Average Grant Date Fair Value
<b>Unvested as of December 31, 2018</b> .....	37,272	\$ 8.29
Granted .....	1,474,996	16.49
Forfeited/canceled .....	(39,477)	15.99
Vested .....	(57,162)	12.25
<b>Unvested as of December 31, 2019</b> .....	<u>1,415,629</u>	<u>\$ 16.46</u>

**Stock Options**

No options were granted during the year ended December 31, 2019. During the year ended December 31, 2018, the Company granted 1,413,251 time-based options and 706,628 options subject to performance and market conditions, both of which grant the holder the option to purchase common stock upon vesting. During the year ended December 31, 2017, the Company granted 569,970 time-based options and 284,984 options subject to performance and market conditions. Time-based options vest over four years with 25% vesting one year after grant and the remainder vesting ratably on a quarterly basis thereafter. Options subject to performance and market conditions vest upon the sale of the business subject to certain conditions specified in the 2016 Plan. All options have a 10 year contractual life, and an option holder must be an employee of the Company at the date of sale of the business.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

A summary of the Company's stock option activity and related information for the years ended December 31, 2019, 2018 and 2017 is as follows:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
<b>Outstanding as of December 31, 2018</b> .....	6,398,982	\$ 9.31	8.4	\$ 25,678
Granted .....	—	—		—
Forfeited/canceled .....	(253,582)	7.97		2,739
Exercised .....	(199,522)	7.88		2,007
<b>Outstanding as of December 31, 2019</b> .....	<u>5,945,878</u>	<u>\$ 9.41</u>	7.5	\$ 88,520
<b>As of December 31, 2019:</b>				
Vested and expected to vest .....	3,958,005	\$ 9.42	7.5	\$ 58,914
Vested and exercisable .....	2,485,010	\$ 8.56	7.0	\$ 39,118

As of December 31, 2019, unamortized stock-based compensation expense related to the time-based awards was \$6.3 million, which will be recognized over the remaining weighted-average vesting term of 2.3 years. In conjunction with the IPO, the Company modified the vesting conditions of these awards to provide for the options to vest and become exercisable following an IPO and registration of shares of common stock of Ping Identity Holding Corp. and Vista Equity Partners ("Vista") realizing a cash return on its investment in the Company equaling or exceeding \$1.491 billion. Though the recognition of the remaining unamortized stock-based compensation expense may be accelerated, the modification did not result in incremental compensation cost.

For the awards subject to performance and market conditions, unrecognized stock-based compensation expense as of December 31, 2018 was \$5.3 million. In conjunction with the IPO, the Company modified the vesting conditions of these awards to provide for the options to vest and become exercisable following an IPO and registration of shares of common stock of Ping Identity Holding Corp. and Vista's realized cash return on its investment in the Company equaling or exceeding \$1.491 billion. In accordance with ASC 718, the Company calculated the fair value of these options on the date of modification, noting an increase in the fair value from \$5.1 million to \$9.0 million on the date of modification, with the incremental increase in fair value representing additional unrecognized stock-based compensation expense. The following assumptions were used in calculating the fair value of these awards on the date of modification:

Risk-free rate .....	1.7 %
Expected term .....	2.3 years
Dividend yield .....	—
Volatility .....	47.0 %
Weighted-average fair value of modified options .....	\$4.41

As of December 31, 2019, unamortized stock-based compensation expense related to the awards subject to performance and market conditions was \$8.8 million. As these awards were not considered probable of meeting vesting requirements, no expense was recorded and the timing of when this expense will be recognized is unknown.

### **Long-Term Incentive Plan**

In conjunction with the IPO, the Company amended its long-term incentive plan ("LTIP") which could provide cash compensation to certain employees upon vesting and are thus liability-classified awards. Grants under the plan are expected to vest following an IPO and registration of shares of common stock

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

of Ping Identity Holding Corp. and Vista's realized cash return on its investment in the Company equaling or exceeding \$1.491 billion. The awards expire upon the earlier of (i) the sale of Vista's shares of common stock of Ping Identity Holding Corp., or (ii) August 2, 2026. The Company will remeasure the fair value of the awards at each reporting period until the awards are settled, which includes the evaluation of the probability of the awards meeting vesting conditions. As of December 31, 2019, these awards were not considered probable of meeting the vesting requirements and accordingly, no expense was recorded during the year ended December 31, 2019 and the timing of when this expense will be recognized is unknown. During future reporting periods, if the awards are considered to be probable of meeting vesting requirements, this could result in a total expense of at least \$18.8 million.

**11. Related Party Transactions**

Vista is a U.S.-based investment firm that controlled the funds which owned a majority of the Company during the years ended December 31, 2019, 2018 and 2017. During the years ended December 31, 2019, 2018 and 2017, the Company paid for consulting services and other expenses related to services provided by Vista and Vista affiliates. The total expenses incurred by the Company for Vista were \$1.2 million, \$1.3 million and \$0.9 million for the years ended December 31, 2019, 2018 and 2017, respectively. The Company had no amount and \$0.3 million in accounts payable related to these expenses at December 31, 2019 and 2018, respectively.

The Company also has revenue arrangements with Vista affiliates. The Company recognized revenue of \$0.6 million, \$1.9 million and \$0.8 million during the years ended December 31, 2019, 2018 and 2017, respectively. The Company had \$1.1 million and \$0.5 million in accounts receivable related to these agreements at December 31, 2019 and 2018, respectively.

As discussed in Note 7, the Company entered into the 2018 Term Loan Facility and 2018 Revolving Credit Facility on January 25, 2018 with a consortium of lenders for a principal amount of \$250.0 million and principal committed amount of \$25.0 million, respectively. At December 31, 2018, affiliates of Vista held \$34.8 million of the 2018 Term Loan Facility and there were no amounts drawn on the 2018 Revolving Credit Facility. In conjunction with the repayment of debt using proceeds from the IPO and the refinancing of outstanding debt as described in Note 7, affiliates of Vista received proceeds of \$27.5 million and \$7.1 million, respectively. At December 31, 2019, affiliates of Vista no longer held a portion of the Company's outstanding debt. During the years ended December 31, 2019 and 2018, affiliates of Vista were paid \$34.8 million and \$0.2 million in principal, respectively, and \$1.7 million and \$1.9 million in interest on the portion of the 2018 Term Loan Facility, respectively, held by them.

**12. Commitments and Contingencies**

**Letters of Credit**

As of December 31, 2019 and 2018, the Company had outstanding letters of credit under an office lease agreement that totaled \$0.7 million and \$0.6 million, respectively, which primarily guaranteed early termination fees in the event of default. The Company collateralizes the letters of credit with restricted cash balances which were classified in other noncurrent assets at December 31, 2019 and 2018.

**Leases**

The Company leases office space and certain office equipment under noncancelable leases. Most of the leases contain renewal options at then market rates.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

At December 31, 2019, future minimum lease payments under the existing leases were as follows:

Year Ending December 31,	December 31, 2019 (in thousands)
2020 .....	\$ 3,819
2021 .....	3,774
2022 .....	3,785
2023 .....	3,839
2024 .....	3,712
Thereafter .....	3,606
Total .....	<u>\$ 22,535</u>

Rent expense under noncancelable operating leases totaled \$3.6 million, \$2.3 million and \$2.1 million for the years ended December 31, 2019, 2018 and 2017, respectively.

### **Purchase Commitments**

In the ordinary course of business, the Company enters into various purchase commitments primarily related to third-party cloud hosting and data services, IT operations and marketing events. Total noncancelable purchase commitments as of December 31, 2019 were approximately \$29.6 million for periods through 2022.

### **Employment Agreements**

The Company has entered into various employment agreements with certain officers and foreign-based employees. The employment agreements provide for minimum annual base salaries, allowances for benefits and insurance coverage, termination rights and other provisions commonly found in such agreements. Under the terms of the employment agreements, the officers and employees are subject to non-compete provisions, as defined. Terms of the employment agreements vary and may be extended.

### **Employee Benefit Plans**

The Company established a defined contribution savings plan under Section 401(k) of the Internal Revenue Code (the "401(k) Plan") in which full-time U.S. employees are eligible to participate on the first day of the subsequent month of their date of employment. The 401(k) Plan covers substantially all employees who meet minimum age and service requirements and allows participants to defer a percentage of their annual compensation as defined in the 401(k) Plan. Employees in the United Kingdom and Canada are covered by defined contribution savings arrangements that are administered based upon the legislative and tax requirements of the respective countries.

The Company made contributions to its employee benefit plans of \$2.7 million, \$2.0 million and \$1.4 million during the years ended December 31, 2019, 2018 and 2017, respectively.

### **Litigation**

From time to time, the Company may be subject to various claims, charges and litigation. The Company records a liability when it is both probable that a liability will be incurred and the amount of the loss can be reasonably estimated. The Company maintains insurance to cover certain actions and believes that resolution of such claims, charges, or litigation will not have a material impact on the Company's financial position, results of operations, or liquidity.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**13. Net Income (Loss) Per Share**

The following table provides a reconciliation of the numerator and denominator used in the Company's calculation of basic and diluted net income (loss) per share:

	Year Ended December 31,		
	2019	2018	2017
	(in thousands, except share and per share amounts)		
<b>Numerator:</b>			
Net income (loss).....	\$ (1,504)	\$ (13,446)	\$ 18,961
<b>Denominator:</b>			
Basic shares:			
Weighted-average common stock outstanding - basic . . .	68,906	65,002	64,984
Diluted shares:			
Weighted-average common stock outstanding - basic . . .	68,906	65,002	64,984
Effect of potentially dilutive securities:			
RSUs.....	—	—	7
Weighted-average common stock outstanding - diluted . .	68,906	65,002	64,991
Net income (loss) per share:			
Basic.....	\$ (0.02)	\$ (0.21)	\$ 0.29
Diluted.....	\$ (0.02)	\$ (0.21)	\$ 0.29

The following shares were excluded from the computation of diluted net income (loss) per share for the periods presented, as their effect would have been antidilutive:

	Year Ended December 31,		
	2019	2018	2017
	(in thousands)		
RSUs.....	1,416	37	—
Stock options.....	3,958	4,263	3,207
Total antidilutive shares.....	5,374	4,300	3,207

**PING IDENTITY HOLDING CORP.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**14. Condensed Financial Information of Registrant (Parent Company Only)**

**Ping Identity Holding Corp.  
(Parent Company Only)  
Condensed Balance Sheets  
(In thousands, except share amounts)**

	December 31,	
	2019	2018
<b>Assets</b>		
Current assets:		
Cash and cash equivalents .....	\$ —	\$ —
Total current assets .....	—	—
Noncurrent assets:		
Investment in subsidiaries .....	710,471	509,105
Total noncurrent assets .....	710,471	509,105
Total assets .....	<u>\$ 710,471</u>	<u>\$ 509,105</u>
<b>Liabilities and stockholders' equity</b>		
Current liabilities:		
Current liabilities .....	\$ —	\$ —
Total current liabilities .....	—	—
Noncurrent liabilities:		
Liabilities, noncurrent .....	—	—
Total noncurrent liabilities .....	—	—
Total liabilities .....	—	—
Commitments and contingencies		
Stockholders' equity:		
Preferred stock; \$0.001 par value; 50,000,000 and 34,000,000 shares authorized at December 31, 2019 and December 31, 2018, respectively; no shares issued or outstanding at December 31, 2019 or December 31, 2018 .....	—	—
Common stock; \$0.001 par value; 500,000,000 and 85,000,000 shares authorized at December 31, 2019 and December 31, 2018, respectively; 79,632,500 and 65,000,816 shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively .....	80	65
Additional paid-in capital .....	718,446	515,979
Accumulated other comprehensive loss .....	(399)	(787)
Accumulated deficit .....	(7,656)	(6,152)
Total stockholders' equity .....	<u>710,471</u>	<u>509,105</u>
Total liabilities and stockholders' equity .....	<u>\$ 710,471</u>	<u>\$ 509,105</u>

**PING IDENTITY HOLDING CORP.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Ping Identity Holding Corp.  
(Parent Company Only)  
Condensed Statements of Operations  
(In thousands)**

	Year Ended December 31,		
	2019	2018	2017
Revenue .....	\$ —	\$ —	\$ —
Operating expenses .....	—	—	—
Income from operations .....	—	—	—
Other income (expense), net .....	—	—	—
Income before income taxes and equity in net income of subsidiaries .....	—	—	—
Benefit for income taxes .....	—	—	—
Equity in net income (loss) of subsidiaries .....	(1,504)	(13,446)	18,961
Net income (loss) .....	<u>\$ (1,504)</u>	<u>\$ (13,446)</u>	<u>\$ 18,961</u>

**Ping Identity Holding Corp.  
(Parent Company Only)  
Condensed Statements of Comprehensive Income (Loss)  
(In thousands)**

	Year Ended December 31,		
	2019	2018	2017
Net income (loss) .....	\$ (1,504)	\$ (13,446)	\$ 18,961
Other comprehensive income (loss), net of tax:			
Subsidiaries' other comprehensive income (loss) .....	388	(901)	333
Total other comprehensive income (loss) .....	388	(901)	333
Comprehensive income (loss) .....	<u>\$ (1,116)</u>	<u>\$ (14,347)</u>	<u>\$ 19,294</u>

**Basis of Presentation**

Parent is a holding company with no material operations of its own that conducts substantially all of its activities through its subsidiaries. Parent has no direct outstanding debt obligations. However, Ping Identity Corporation, a wholly owned indirect subsidiary, as borrower under its 2016 Credit Facilities, was limited in its ability to declare dividends or make any payment on account of its capital stock to, directly or indirectly, fund a dividend or other distribution to the Parent, subject to limited exceptions, including (1) stock repurchases, (2) unlimited amounts subject to compliance with a 4.0 to 1.0 total leverage ratio giving pro forma effect to any distribution, (3) unlimited amounts up to 5% of the Parent's market capitalization and (4) payment of the Parent's overhead expenses. For a discussion of the 2016 Credit Facilities, see Note 7. Ping Identity Corporation is further limited in its ability to declare dividends or make any payment on account of its capital stock to, directly or indirectly, fund a dividend or other distribution to the Parent as borrower under its 2018 Credit Facilities and, upon the refinancing of its debt, as borrower under its 2019 Credit Facilities. For a discussion of the 2018 Credit Facilities, the 2019 Credit Facilities and their associated dividend restrictions, refer to Note 7.

These condensed financial statements have been presented on a "parent-only" basis. Under a parent-only presentation, the Parent's investments in subsidiaries are presented under the equity method of accounting. A condensed statement of cash flows was not presented because the Parent had no material operating, investing, or financing cash flow activities for the years ended December 31, 2019, 2018 or 2017. Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted. As such, these parent-only statements should be read in conjunction with the accompanying notes to consolidated financial statements.

**PING IDENTITY HOLDING CORP.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**15. Subsequent Events**

On March 2, 2020, the Company acquired ShoCard, Inc., a Delaware corporation ("ShoCard") for \$5.5 million in cash funded with existing resources. ShoCard is a cloud-based mobile identity solution that offers identity service for verified claims. An additional \$3.1 million and \$2.3 million is payable in common stock of the Company on the first and second anniversary of the acquisition, respectively, contingent on individuals remaining employed as of those dates and meeting certain performance conditions. These amounts are payable on such anniversaries based on a fixed dollar value.

Due to the timing of the acquisition, the allocation of the purchase price has not yet been finalized.



## **Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

### **Item 9A. Controls and Procedures**

#### ***Evaluation of Disclosure Controls and Procedures***

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, our principal executive officer and principal financial officer have concluded that as of December 31, 2019, our disclosure controls and procedures were effective at the reasonable assurance level.

#### ***Management's Report on Internal Control over Financial Reporting***

This Annual Report on Form 10-K does not include a report of management's assessment regarding our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) or an attestation report of our independent registered accounting firm due to a transition period established by rules of the Securities and Exchange Commission for newly public companies. Additionally, our independent registered public accounting firm will not be required to report on the effectiveness of our internal control over financial reporting pursuant to Section 404 until we are no longer an "emerging growth company" as defined in the JOBS Act.

#### ***Remediation of Material Weakness Disclosed in our Quarterly Report on Form 10-Q***

As was previously disclosed in Item 4 of our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, our internal control over financial reporting was not effective as of September 30, 2019 due to a material weakness in controls related to the quarterly accounting for income taxes. Specifically, we did not design and maintain effective controls related to the preparation, analysis and review of the interim income tax provision and significant income tax balance sheet accounts required to assess the accuracy and completeness of the income tax amounts reported within the consolidated financial statements at period end.

To remediate the material weakness in our internal control over financial reporting described in Item 4 of our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, we:

- designed and implemented enhanced control activities related to the preparation and review of the quarterly income tax provision and related balance sheet accounts to ensure the accurate recording of and reliable financial statement presentation of tax-related items within quarterly financials; and
- executed the enhanced quarterly income tax internal control process for multiple quarters during 2019.

In addition to the above remediation actions, management performed and documented design and operating effectiveness testing over the enhanced quarterly income tax internal control process to assess remediation. Based on this assessment, management has determined that the enhanced controls discussed above were effectively designed and demonstrated to be operating effectively for a sufficient period of time to enable us to conclude that the material weakness has been remediated as of December 31, 2019.

#### ***Changes in Internal Control***

There have been no changes in internal control over financial reporting during the quarter ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

### ***Inherent Limitations on Effectiveness of Controls***

Our management, including our principal executive officer and principal financial officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

### **Item 9B. Other Information**

Not applicable.

## **PART III.**

### **Item 10. Directors, Executive Officers and Corporate Governance**

#### **Executive Officers and Directors**

The information required by this item will be contained in our definitive proxy statement to be filed with the SEC in connection with our 2019 annual meeting of stockholders (the "Proxy Statement"), which is expected to be filed no later than 120 days after the end of our fiscal year ended December 31, 2019, and is incorporated in this report by reference.

#### **Code of Ethics**

On September 23, 2019, we adopted our Code of Ethics, which applies to all employees, including our principal executive officer, our principal financial officer, our principal accounting officer and all other executive officers, and applies to all directors. The Code of Ethics is available on our website at [investor.pingidentity.com](http://investor.pingidentity.com) under "Governance." The Audit Committee of our Board is responsible for enforcing compliance with the Code of Ethics and must approve any waivers of the Code of Ethics for executive officers and directors. Our Chief Legal Officer must approve waivers of the Code of Ethics for all other persons. We expect that any amendments to the Code of Ethics, or any waivers of its requirements, will be disclosed on our website or via other disclosure measures permitted under applicable law and/or the NYSE listing standards, as required by applicable law or the NYSE listing standards.

### **Item 11. Executive Compensation**

The information required by this item will be set forth in the Proxy Statement, which is expected to be filed no later than 120 days after the end of our fiscal year ended December 31, 2019, and is incorporated in this report by reference.

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

The information required by this item will be set forth in the Proxy Statement, which is expected to be filed no later than 120 days after the end of our fiscal year ended December 31, 2019, and is incorporated in this report by reference.

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

The information required by this item will be set forth in the Proxy Statement, which is expected to be filed no later than 120 days after the end of our fiscal year ended December 31, 2019, and is incorporated in this report by reference.

### **Item 14. Principal Accounting Fees and Services**

The information required by this item will be set forth in the Proxy Statement, which is expected to be filed no later than 120 days after the end of our fiscal year ended December 31, 2019, and is incorporated in this report by reference.

## **PART IV.**

### **Item 15. Exhibits and Financial Statement Schedules**

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

1. Consolidated Financial Statements

Our Consolidated Financial Statements are listed in the “Index to Consolidated Financial Statements” under Part II, Item 8 of this Annual Report on Form 10-K.

2. Financial Statement Schedules

Financial statement schedules have been omitted because they are not required, not applicable, not present in amounts sufficient to require submission of the schedule, or the required information is shown in the Consolidated Financial Statements or notes thereto.

3. Exhibits

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

## Exhibit Index

Exhibit Number	Exhibit Description
3.1	Third Amended and Restated Certificate of Incorporation of Ping Identity Holding Corp., dated September 23, 2019 (incorporated by reference to Exhibit 3.1 to the Company's Current Report filed with the SEC on Form 8-K on September 24, 2019).
3.2	Amended and Restated Bylaws of Ping Identity Holding Corp., dated September 23, 2019 (incorporated by reference to Exhibit 3.2 to the Company's Current Report filed with the SEC on Form 8-K on September 24, 2019).
4.1	Registration Rights Agreement, dated September 23, 2019, by and among the Company and the other signatories party thereto (incorporated by reference to Exhibit 4.1 to the Company's Current Report filed with the SEC on Form 8-K on September 24, 2019).
4.2	Description of the Company's Common Stock, filed herewith.
10.1	Director Nomination Agreement, dated as of September 23, 2019, by and among the Company and the other signatories party thereto (incorporated by reference to Exhibit 10.1 to the Company's Current Report filed with the SEC on Form 8-K on September 24, 2019).
10.2 <sup>+</sup>	Ping Identity Holding Corp. Omnibus Incentive Plan (incorporated by reference to Exhibit 10.3 to the Company's Current Report filed with the SEC on Form 8-K on September 24, 2019).
10.3 <sup>+</sup>	Form of Option Award Agreement under Omnibus Incentive Plan (incorporated by reference to Exhibit 10.4 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
10.4 <sup>+</sup>	Form of Restricted Shares Award Agreement under Omnibus Incentive Plan (incorporated by reference to Exhibit 10.5 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
10.5 <sup>+</sup>	Form of SAR Award Agreement under Omnibus Incentive Plan (incorporated by reference to Exhibit 10.6 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
10.6 <sup>+</sup>	Form of RSU Award Agreement under Omnibus Incentive Plan (incorporated by reference to Exhibit 10.7 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
10.7	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.8 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
10.8	Lease Agreement, dated as of January 21, 2011, by and between FSP 1001 17th Street LLC (as successor in interest to MG-1005, LLC), as landlord and Ping Identity Corporation, as tenant (incorporated by reference to Exhibit 10.10 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
10.9	First Amendment to Lease Agreement, dated as of November 12, 2015, by and between FSP 1001 17th Street LLC, as landlord and Ping Identity Corporation, as tenant (incorporated by reference to Exhibit 10.11 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).

- 10.10 Second Amendment to Lease Agreement, dated as of December 6, 2017, by and between FSP 1001 17th Street LLC, as landlord and Ping Identity Corporation, as tenant (incorporated by reference to Exhibit 10.12 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
- 10.11 Third Amendment to Lease Agreement, dated as of August 21, 2018, by and between FSP 1001 17th Street LLC, as landlord and Ping Identity Corporation, as tenant (incorporated by reference to Exhibit 10.13 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
- 10.12 Fourth Amendment to Lease Agreement, dated as of February 1, 2019, by and between FSP 1001 17th Street LLC, as landlord and Ping Identity Corporation, as tenant. (incorporated by reference to Exhibit 10.14 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
- 10.13 Fifth Amendment to Lease Agreement, dated as of March 18, 2019, by and between FSP 1001 17th Street LLC, as landlord and Ping Identity Corporation, as tenant (incorporated by reference to Exhibit 10.15 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
- 10.14 Sixth Amendment to Lease Agreement, dated as of July 9, 2019, by and between FSP 1001 17th Street LLC, as landlord and Ping Identity Corporation, as tenant, filed herewith.
- 10.15 Seventh Amendment to Lease Agreement, dated as of December 31, 2019, by and between FSP 1001 17th Street LLC, as landlord and Ping Identity Corporation, as tenant, filed herewith.
- 10.16<sup>+</sup> Letter Agreement, dated as of June 20, 2016, by and between Andre Durand and Ping Identity Corporation (incorporated by reference to Exhibit 10.16 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
- 10.17<sup>+</sup> Letter Agreement, dated as of November 2, 2018, by and between B. Kristian Nagel and Ping Identity Corporation (incorporated by reference to Exhibit 10.17 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
- 10.18<sup>+</sup> Letter Agreement, dated as of October 22, 2018, by and between Bernard Harguindeguy and Ping Identity Corporation (incorporated by reference to Exhibit 10.18 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
- 10.19<sup>+</sup> Letter Agreement, dated as of June 24, 2016, by and between Lauren Romer and Ping Identity Corporation (incorporated by reference to Exhibit 10.19 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
- 10.20<sup>+</sup> Letter Agreement, dated as of July 7, 2016, by and between Raj Dani and Ping Identity Corporation. (incorporated by reference to Exhibit 10.20 to the Company's Registration Statement filed with the SEC on Form S-1 on August 23, 2019).
- 10.21<sup>+</sup> Ping Identity Holding Corp. 2016 Stock Option Plan, as amended (incorporated by reference to Exhibit 10.21 to the Company's Registration Statement filed with the SEC on Form S-1/A on September 9, 2019).
- 10.22<sup>+</sup> Form of Stock Option Agreement under 2016 Stock Option Plan (incorporated by reference to Exhibit 10.22 to the Company's Registration Statement filed with the SEC on Form S-1/A on September 9, 2019).

- 10.23<sup>+</sup> Form of Non-Employee Outside Director Restricted Stock Unit Agreement (incorporated by reference to Exhibit 10.23 to the Company's Registration Statement filed with the SEC on Form S-1/A on September 9, 2019).
- 10.24<sup>+</sup> Form of Restricted Stock Unit Agreement (incorporated by reference to Exhibit 10.24 to the Company's Registration Statement filed with the SEC on Form S-1/A on September 9, 2019).
- 10.25<sup>+</sup> Credit Agreement, dated as of December 12, 2019, by and among Roaring Fork Intermediate, LLC, Ping Identity Corporation, the other loan parties party thereto from time to time, the lenders and issuing banks party thereto from time to time, Bank of America, N.A., as administrative agent, and BOFA Securities Inc. and RBC Capital Markets as joint lead arrangers (incorporated by reference to Exhibit 10.1 to the Company's Current Report filed with the SEC on Form 8-K on December 13, 2019).
- 21.1 List of subsidiaries of Ping Identity Holding Corp., filed herewith.
- 23.1 Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm, filed herewith.
- 31.1 Certification of the Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
- 31.2 Certification of the Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
- 32.1\* Certification of the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, filed herewith.
- 32.2\* Certification of the Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, filed herewith.

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<sup>+</sup> Indicates a management contract or compensatory plan or agreement.

<sup>\*</sup> The certifications furnished in Exhibit 32.1 and Exhibit 32.2 hereto are deemed to accompany this Annual Report on Form 10-K and will not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, except to the extent that the registrant specifically incorporates it by reference.

**Item 16. Form 10-K Summary**

None.



## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Signature	Title	Date
/s/Andre Durand Andre Durand	Chief Executive Officer and Director (Principal Executive Officer)	March 4, 2020

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

Signature	Title	Date
/s/Andre Durand Andre Durand	Chief Executive Officer and Director (Principal Executive Officer)	March 4, 2020
/s/Raj Dani Raj Dani	Chief Financial Officer (Principal Financial Officer)	March 4, 2020
/s/Adriana Carpenter Adriana Carpenter	Chief Accounting Officer (Principal Accounting Officer)	March 4, 2020
/s/Rod Aliabadi Rod Aliabadi	Director	March 4, 2020
/s/David A. Breach David A. Breach	Director	March 4, 2020
/s/Clifford Chiu Clifford Chiu	Director	March 4, 2020
/s/Michael Fosnaugh Michael Fosnaugh	Director	March 4, 2020
/s/Lisa Hook Lisa Hook	Director	March 4, 2020
/s/John McCormack John McCormack	Director	March 4, 2020
/s/Brian N. Sheth Brian N. Sheth	Director	March 4, 2020
/s/Yancey L. Spruill Yancey L. Spruill	Director	March 4, 2020

The logo features the word "Ping" in a large, bold, red serif font, with the word "Identity" in a smaller, red sans-serif font directly below it. A registered trademark symbol (®) is located at the end of "Identity". The entire logo is centered within a white square.

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