

**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

**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: 001-37806



**TWILIO INC.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

**26-2574840**

(I.R.S. Employer Identification Number)

**101 Spear Street, First Floor**  
**San Francisco, California 94105**  
(Address of principal executive offices) (Zip Code)  
**(415) 390-2337**  
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, par value \$0.001 per share	TWLO	The 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 15(d) of the Act: Yes  No

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

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

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

The aggregate market value of stock held by non-affiliates as of June 28, 2019 (the last business day of the registrant's most recently completed second quarter) was \$15.9 billion based upon \$136.4 per share, the closing price on June 28, 2019 on the New York Stock Exchange. Determination of stock ownership by non-affiliates was made solely for the purpose of responding to this requirement and the registrant is not bound by this determination for any other purpose.

On February 20, 2020, 128,303,845 shares of the registrant's Class A common stock and 11,406,940 shares of registrant's Class B common stock were outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive Proxy Statement for the 2020 Annual Meeting of Stockholders are incorporated herein by reference in Part III of this Annual Report on Form 10-K to the extent stated herein. Such Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended December 31, 2019.

TWILIO INC.  
Annual Report on Form 10-K  
For the Fiscal Year Ended December 31, 2019  
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## Special Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about:

- our future financial performance, including our revenue, cost of revenue, gross margin and operating expenses, ability to generate positive cash flow and ability to achieve and sustain profitability;
- anticipated technology trends, such as the use of and demand for cloud communications;
- our ability to continue to build and maintain credibility with the global software developer community;
- our ability to attract and retain customers to use our products;
- the evolution of technology affecting our products and markets;
- our ability to introduce new products and enhance existing products;
- our ability to comply with modified or new industry standards, laws and regulations applying to our business, including the General Data Protection Regulation ("GDPR"), the California Consumer Privacy Act of 2018 and other privacy regulations that may be implemented in the future, and Signature-based Handling of Asserted Information Using toKENs ("SHAKEN") and Secure Telephone Identity Revisited ("STIR") standards (together, "SHAKEN/STIR") and other robocalling prevention and anti-spam standards and increased costs associated with such compliance;
- our ability to optimize our network service provider coverage and connectivity;
- our ability to manage changes in network service provider fees that we pay in connection with the delivery of communications on our platform;
- our ability to work closely with email inbox service providers to maintain deliverability rates;
- our ability to pass on our savings associated with our platform optimization efforts to our customers;
- the impact and expected results from changes in our relationship with our larger customers;
- our ability to attract and retain enterprises and international organizations as customers for our products;
- our ability to form and expand partnerships with technology partners and consulting partners;
- our ability to successfully enter into new markets and manage our international expansion;
- the attraction and retention of qualified employees and key personnel;
- our ability to effectively manage our growth and future expenses and maintain our corporate culture;
- our ability to compete effectively in an intensely competitive market;
- the sufficiency of our cash and cash equivalents to meet our liquidity needs;
- our anticipated investments in sales and marketing, research and development and additional systems and processes to support our growth;

- our ability to maintain, protect and enhance our intellectual property;
- our ability to successfully defend litigation brought against us;
- our ability to service the interest on our convertible notes and repay such notes, to the extent required;
- our customers' and other platform users' violation of our policies or other misuse of our platform;
- our expectations about the impact of natural disasters and public health epidemics, such as the coronavirus on our business, results of operations and financial condition; and
- our ability to successfully integrate and realize the benefits of our past or future strategic acquisitions or investments, including our acquisition of SendGrid, Inc. ("SendGrid").

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Annual Report on Form 10-K.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in Part I, Item 1A, "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. We cannot assure you that the results, events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

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

**Item 1. Business**

**Overview**

Software developers are reinventing nearly every aspect of business today. Yet as developers, we repeatedly encountered an area where we could not innovate—communications. Because communication is a fundamental human activity and vital to building great businesses, we wanted to incorporate communications into our software applications, but the barriers to innovation were too high. Twilio was started to solve this problem.

We believe the future of communications will be written in software, by the developers of the world—our customers. By empowering them, our mission is to fuel the future of communications.

Cloud platforms are a new category of software that enable developers to build and manage applications without the complexity of creating and maintaining the underlying infrastructure. These platforms have arisen to enable a fast pace of innovation across a range of categories, such as computing and storage. We are the leader in the Cloud Communications Platform category. We enable developers to build, scale and operate real-time communications within software applications.

We offer a Customer Engagement Platform with software designed to address specific use cases like account security and contact centers and a set of Application Programming Interfaces ("APIs") that handles the higher-level communication logic needed for nearly every type of customer engagement. These APIs are focused on the business challenges that a developer is looking to address, allowing our customers to more quickly and easily build better ways to engage with their customers throughout their journey. We also offer a set of APIs that enable developers to embed voice, messaging, video and email capabilities into their applications, and are designed to support almost all the fundamental ways humans communicate, unlocking innovators to address just about any communication market. The Super Network is our software layer that allows our customers' software to communicate with connected devices globally. It interconnects with communications networks and inbox service providers around the world and continually analyzes data to optimize the quality and cost of communications that flow through our platform. The Super Network also contains a set of APIs giving our customers access to more foundational components of our platform, like phone numbers.

In February 2019, we acquired SendGrid, the leading email API platform. Email is an important channel for businesses to communicate with their customers, and incorporating SendGrid's products into our platform allows us to enable businesses to engage with their customers via email effectively and at scale.

We had over 179,000 Active Customer Accounts as of December 31, 2019, representing organizations big and small, old and young, across nearly every industry, with one thing in common: they are competing by using the power of software to build differentiation through communications. With our customer engagement platform, our customers are disrupting existing industries and creating new ones. For example, our customers' software applications use our platform to notify a diner when a table is ready, provide enhanced application security through two-factor authentication, connect potential buyers to real estate agents, and power large, omni-channel contact centers. The range of applications that developers build with the Twilio platform has proven to be nearly limitless.

Our goal is for Twilio to be in the toolkit of every software developer in the world. Because big ideas often start small, we encourage developers to experiment and iterate on our platform. We love when developers explore what they can do with Twilio, because one day they may have a business problem that they will use our products to solve.

As our customers succeed, we share in their success through our usage-based revenue model. Our revenue grows as customers increase their usage of a product, extend their usage of a product to new applications or adopt a new product. We believe the most useful indicator of this increased activity from our existing customer accounts is our Dollar-Based Net Expansion Rate, which for historical periods through December 31, 2019, compares the revenue from a cohort of Active Customer Accounts, other than Variable Customer Accounts, in a period to the same period in the prior year. Dollar-Based Net Expansion Rate was 136% and 140% for the years ended December 31, 2019 and 2018, respectively. See Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Business Metrics—Dollar-Based Net Expansion Rate."

**Our Platform Approach**

Twilio's mission is to fuel the future of communications. We enable developers to build, scale and operate real-time communications within software applications.

We believe every application can be enhanced through the power of communication. Over time, we believe that all of our communications that do not occur in person will be integrated into software applications. Our platform approach enables developers to build this future.

Using our software, developers are able to incorporate communications into applications that span a range of industries and functionalities. Our technology partner customers, which embed our products in the solutions they sell to other businesses, are also able to leverage our products to deliver their applications.

#### *Common Use Cases*

- **Anonymous Communications.** Enabling users to have a trusted means of communications where they prefer not to share private information like their telephone number. Examples include conversations between drivers and riders or texting after meeting through a dating website.
- **Alerts and Notifications.** Alerting a user that an event has occurred, such as when a table is ready, a flight is delayed or a package is shipped.
- **Contact Center.** Improving customer support by powering customer care teams with voice, messaging and video capabilities that integrate with other systems to add context, such as a caller's support ticket history or present location.
- **Call Tracking.** Using phone numbers to provide detailed analytics on phone calls to measure the effectiveness of marketing campaigns or lead generation activities in a manner similar to how web analytics track and measure online activity.
- **Marketing.** Integrating messaging and email with marketing automation technology, allowing organizations to deliver targeted and timely contextualized communications to consumers.
- **User Security.** Verifying user identity through two-factor authentication prior to log-in or validating transactions within an application's workflow. This adds an additional layer of security to any application.
- **Twilio For Good.** Partnering with nonprofit organizations through Twilio.org, to use the power of communications to help solve social challenges, such as a short message service ("SMS") hotline to fight human trafficking, an emergency volunteer dispatch system and appointment reminders for medical visits in developing nations.

#### **Our Platform**

##### ***Solutions***

Part of our core strategy is to provide a broad set of lower level building blocks (i.e. our Channel APIs and Super Network) that can be used to build virtually any use case. By doing this, we allow developers' creativity to flourish across the widest set of use cases — some of which haven't even been invented yet. As we observe what use cases are most common, and the workflows our customers find most challenging, we create Solutions to bring these learnings to a broader audience. While developers can build a broad range of applications on our platform, certain use cases are more common. Our Solutions APIs build upon our Channel APIs to offer more fully implemented functionality for a specific purpose, such as two-factor authentication or a contact center, thereby saving developers significant time in building their applications.

The higher level APIs we have created in this layer of our platform are focused on addressing a massive opportunity to recreate and modernize the field of customer engagement. The means by which most companies engage with their customers is archaic and disjointed, made more glaring by the pace of development in other areas of communication. Our products combine the flexibility provided by our platform model with the learnings we've gained since the company was founded focused on driving success at tens of thousands of customers.

##### ***Channel APIs***

Our Channel APIs provide a range of products that enable developers to embed voice, messaging, video and email capabilities into their applications. Our easy-to-use developer APIs provide a programmatic channel to access our software. Developers can utilize our intuitive programming language, TwiML, to specify application functions such as <Dial>, <Record> and <Play>, leveraging our software to manage the complexity of executing the specified functions.

Our Channel APIs consist of software products that can be used individually or in combination to build rich contextual communications within applications. We do not aim to provide complete business solutions; rather to offer flexible building blocks that enable our customers to build what they need. Our Channel APIs include:

- **Programmable Voice.** Our Programmable Voice software products allow developers to build solutions to make and receive phone calls globally, and to incorporate advanced voice functionality such as text-to-speech, conferencing, recording and transcription. Programmable Voice, through our advanced call control software, allows developers to build customized applications that address use cases such as contact centers, call tracking and analytics solutions and anonymized communications.
- **Programmable Messaging.** Our Programmable Messaging software products allow developers to build solutions to send and receive messages globally, through channels like SMS, multimedia messaging service ("MMS"), short codes, Rich Communication Services ("RCS") messaging, WhatsApp, Facebook Messenger, and LINE, and incorporate advanced messaging functionality such as emoji, picture messaging and localized languages. Our customers use Programmable Messaging, through software controls, to power use cases, such as appointment reminders, delivery notifications, order confirmations and customer care.
- **Programmable Video.** Our Programmable Video software products enable developers to build next-generation mobile and web applications with embedded video, including for use cases such as customer care, collaboration and physician consultations.
- **Email.** Our email products serve as a digital communication platform that enables businesses to engage with their customers via email reliably, effectively and at scale. Businesses use the email products for both transactional and marketing emails. Transactional emails include shipping notifications, friend requests, password resets, and sign-up confirmations. Marketing emails include newsletters, advertising, announcements, and related communications to large audiences.

### ***Super Network***

Our Solutions and Channel APIs are built on top of our global software layer, which we call our Super Network. Our Super Network interfaces intelligently with communications networks globally. We use software to construct a high performance network that continuously optimizes quality and deliverability for our customers. Our Super Network breaks down the geopolitical boundaries and scale limitations of physical network infrastructure and provides our customers that use our Customer Engagement Platform access to over 180 countries. The Super Network also contains a set of API's giving our customers access to more foundational components of our platform, such as phone numbers.

We have strategically built out our global infrastructure and operate in more than 25 cloud data centers in nine geographically distinct regions. These data centers serve as interconnection points with network service providers and customers alike, giving us a truly global reach and a redundant means to connect businesses with billions of customers all over the world. Our provider relationships and deployed infrastructure have allowed us to catalogue the many different communications standards that exist today and offer them up to businesses as one consolidated platform with simple, easy-to-use APIs. We are continually adding new network service provider relationships as we scale, and we are not dependent upon any single network service provider to conduct our business.

The strength of Twilio's Super Network comes from the software intelligence we've embedded throughout our communications network. By leveraging our software expertise, we eliminate the traditional complexities and uncertainties of telecommunications and deliver a consistent and high quality communications platform for our customers. This allows customers to spend less time focusing on mastering the highly specialized and complex telecommunications industry and more time focusing on building best-in-class customer engagement experiences. Our proprietary technology selects which network service providers to use and routes the communications in order to optimize the quality and cost of the communications across our product offerings.

Our Super Network analyzes massive volumes of data from our traffic, the applications that power it, and the underlying provider networks in order to optimize our customers' communications for quality and cost. As such, with every new message and call, our Super Network becomes more robust, intelligent and efficient, enabling us to provide better performance and deliverability for our customers. Our Super Network's sophistication becomes increasingly difficult for others to replicate over time as it is continually learning, improving and scaling.

## ***Our Business Model for Innovators***

Our goal is to include Twilio in the toolkit of every developer in the world. Because big ideas often start small, developers need the freedom and tools to experiment and iterate on their ideas.

In order to empower developers to experiment, our developer-first business model is low friction, eliminating the upfront costs, time and complexity that typically hinder innovation. We call this approach our Business Model for Innovators, which empowers developers by reducing friction and upfront costs, encouraging experimentation, and enabling developers to grow as customers as their ideas succeed. Developers can begin building with a free trial. They have access to self-service documentation and free customer support to guide them through the process. Once developers determine that our software meets their needs, they can flexibly increase consumption and pay based on usage. In short, we acquire developers like consumers and enable them to spend like enterprises.

## **Our Growth Strategy**

We are the leader in the Cloud Communications Platform category based on revenue, market share and reputation, and intend to continue to set the pace for innovation. We will continue to invest aggressively in our platform approach, which prioritizes increasing our reach and scale. We intend to pursue the following growth strategies:

- **Continue Significant Investment in our Technology Platform.** We will continue to invest in building new software capabilities and extending our platform to bring the power of contextual communications to a broader range of applications, geographies and customers. We have a substantial research and development team, comprising approximately 46% of our headcount as of December 31, 2019.
- **Grow Our Developer Community and Accelerate Adoption.** We will continue to enhance our relationships with developers globally and seek to increase the number of developers on our platform. As of December 31, 2019, we had more than 179,000 Active Customer Accounts on our platform. In addition to adding new developers, we believe there is significant opportunity for revenue growth from developers who have already registered accounts with us but have not yet built their software applications with us, or whose applications are in their infancy and will grow with Twilio into an Active Customer Account.
- **Increase Our International Presence.** Our platform serves over 180 countries today, making it as simple to communicate from São Paulo as it is from San Francisco. Customers outside the United States are increasingly adopting our platform, and for the years ended December 31, 2019 and 2018, revenue from international customer accounts accounted for 29% and 25% of our total revenue, respectively. We are investing to meet the requirements of a broader range of global developers and enterprises. We plan to grow internationally by continuing to expand our operations outside of the United States and collaborating with international strategic partners.
- **Further Penetrate the Enterprises.** We plan to drive greater awareness and adoption of Twilio from enterprises across industries. We intend to further increase our investment in sales and marketing to meet evolving enterprise needs globally, in addition to extending our enterprise-focused use cases and platform capabilities, like our Twilio Enterprise Plan. Additionally, we believe there is significant opportunity to expand our relationships with existing enterprise customers.
- **Expand Our Partner Channel.** Our Twilio Build partner program is focused on growing our community of technology and consulting partners. Twilio Build's ecosystem of partners offers customers both packaged applications and consulting expertise that make it possible for any customer to innovate with Twilio regardless of region, industry, business model or development resources. To help our partners grow their businesses and innovate for their customers, this program provides go-to-market support, certification and training programs, and a partner success team. We have relationships with a number of technology partner customers that embed our products in the solutions that they sell to other businesses. We intend to expand our relationships with existing technology partner customers and to add new technology partner customers. We plan to invest in a range of initiatives to encourage increased collaboration with, and generation of revenue from, technology partner customers. We have started developing relationships with consulting partners who provide consulting and development services for organizations that have limited software development expertise to build our platform into their software applications. We intend to continue to invest in and develop the ecosystem for our solutions in partnership with consulting partners to accelerate awareness and adoption of our platform.
- **Selectively Pursue Acquisitions and Strategic Investments.** We may selectively pursue acquisitions and strategic investments in businesses and technologies that strengthen our platform. From 2015 through 2019, we



made several acquisitions which have allowed us to expand our platform and service offerings to include features such as a cloud-based API to seamlessly embed two-factor authentication and phone verification into any application, Web Real-Time-Communication ("Web RTC") media processing technologies, contact center analytics, software mobile network infrastructure and language recognition capabilities. In addition, our acquisition of SendGrid in February 2019 allowed us to add a leading e-mail API platform to our product offerings.

## **The Twilio Magic**

We believe there's a unique spirit to Twilio, manifested in who we are and how we work together. These are the principles we use to build an impactful, high growth business while staying true to ourselves. Collectively, these principles guide how we act, how we make decisions, and how we win.

### *How We Act*

**Be an Owner.** Owners know their business, embracing the good news and the bad. Owners sweat the details and "pick up the trash." Owners think long term and spend money wisely.

**Empower Others.** We believe that unleashing human potential—both inside and outside our company—is the key to our success. Be humble and realize it's not just about us. Invest in each other.

**No Shenanigans.** Always act in an honest, direct and transparent way.

### *How We Make Decisions*

**Wear the Customer's Shoes.** Spend the time to deeply understand customers and solve problems from their perspective. Earn trust through every interaction.

**Write It Down.** Our business is complex, so take the time to express yourself in prose—for your sake, and for the folks with whom you're collaborating.

**Ruthlessly Prioritize.** Prioritization helps break down complex problems and provides clarity in the face of uncertainty. Decisions are progress, so make decisions with available information and keep learning.

### *How We Win*

**Be Bold.** We're driven by a hunger to build a meaningful and impactful company. Embrace crazy ideas and remember, every big idea starts small.

**Be Inclusive.** To achieve our goals, we need a diverse set of voices in the room. Build diverse teams and seek out unique points of view.

**Draw the Owl.** There's no instruction book, it's ours to write. Figure it out, ship it, and iterate. Invent the future, but don't wing it.

**Don't Settle.** Expect the best from yourself and others, because there's no feeling greater than being proud of our work. Hire the best people for every role.

## **Twilio.org**

We believe we can create greater social good through better communications. Through Twilio.org, which is a part of our company and not a separate legal entity, we donate and discount our products to nonprofits, who use our products to engage their audience, expand their reach and focus on making a meaningful change in the world. Twilio.org's mission is to fuel communications that give hope, power, and freedom with a 10-year goal to help one billion people every year. In 2015, we reserved 1% of our common stock to fund social impact at Twilio. In March 2019, we increased the Twilio.org share reserve by 203,658 shares to account for a similar program previously operated by SendGrid. Since 2015, Twilio.org has made several donations consistent with its philanthropic goals, which were treated as charitable contributions and recorded in general and administrative expenses in our consolidated statements of operations included elsewhere in this Annual Report on Form 10-K. As of December 31, 2019, the total remaining shares reserved for Twilio.org was 795,673.

## Our Products

### *Solutions APIs*

While developers can build a broad range of applications on our platform, certain use cases are more common. Our Solutions APIs build upon our Channel APIs to offer more fully implemented functionality for a specific purpose, such as two-factor authentication or a contact center, thereby saving developers significant time in building their applications.

#### *Flex*

Flex is a fully programmable cloud contact center platform designed to give businesses the ability to build and improve upon customer and agent experiences using tools and frameworks they are already familiar with. With Flex, customers can quickly deploy an omnichannel contact center platform and programmatically customize every element of the experience including the interface, communication channels, agent routing, and reporting to meet the unique needs of the business.

#### *Account Security*

Identity and communications are closely linked, and this is a critical business need for our customers. Using our two-factor authentication APIs, developers can add an extra layer of security to their applications with second-factor passwords sent to a user's phone via SMS, voice, email or push notifications. Our Account Security products include:

- **Authy.** Provides user authentication codes through a variety of formats based on the developer's needs. Authentication codes can be delivered through the Authy app on registered mobile phones, desktop, or smart devices or via SMS and voice automated phone calls. In addition, authentication can be determined through a push notification on registered smartphones
- **Lookup.** Allows developers to validate number format, device type, and provider prior to sending messages or initiating calls.
- **Verify.** Allows developers to deliver a one-time passcode through SMS or voice to verify that a user is in possession of the device being registered

We charge on a per-seat or per-use basis for our Solutions APIs.

### *Channel APIs*

Our Channel APIs consist of software for voice, messaging, video and email authentication that empower developers to build applications that can communicate with connected devices globally. We do not aim to provide complete business solutions; rather, our Channel APIs offer flexible building blocks that enable our customers to build what they need.

#### *Programmable Voice*

Our Programmable Voice software products allow developers to build solutions to make and receive phone calls globally, and to incorporate advanced voice functionality such as text-to-speech, conferencing, recording and transcription. Programmable Voice, through our advanced call control software, allows developers to build customized applications that address use cases such as contact centers, call tracking and analytics solutions and anonymized communications. Our voice software works over both the traditional public switch telephone network and over Internet Protocol. Programmable Voice includes:

- **Twilio Voice.** Initiate, receive and manage phone calls globally, end to end through traditional voice technology or between web browsers and landlines or mobile phones. Voice calling can also be integrated natively in Apple iOS and Google Android apps.
- **Call Recording.** Securely record, store, transcribe and retrieve voice calls in the cloud.

- **Global Conference.** Integrate audio conferencing that intelligently routes calls through cloud data centers in the closest of nine geographic regions to reduce latency. Scales from Basic, for a limited number of participants, to Epic, for an unlimited number of participants.

We charge on a per-minute basis for most of our Programmable Voice products.

### ***Programmable Messaging***

Our Programmable Messaging software products allow developers to build solutions to send and receive messages globally, and incorporate advanced messaging functionality such as emoji, picture messaging and localized languages. Our customers use Programmable Messaging, through software controls, to power use cases, such as appointment reminders, delivery notifications, order confirmations and customer care. We offer core channels like SMS, Push and Chat; over-the-top channels like WhatsApp and Facebook Messenger; support for next-generation rich messaging like RCS Business Messaging; and over IP through our Android, iOS and JavaScript software development kits. Programmable Messaging includes:

- **Twilio SMS.** Programmatically send, receive and track SMS messages around the world, supporting localized languages in nearly every market.
- **Twilio MMS.** Exchange picture messages and more over U.S. and Canadian phone numbers from customer applications with built-in image transcoding and media storage.
- **Copilot.** Intelligent software layer that handles tasks, such as dynamically sending messages from a phone number that best matches the geographic location of the recipient based on a global pool of numbers.
- **Programmable Chat.** Deploy contextual, in-app messaging at global scale.
- **Channels.** Programmatically send, receive and track messages to messaging apps such as WhatsApp, Facebook Messenger and LINE globally.
- **Toll-Free SMS.** Send and receive text messages with the same toll-free number used for voice calls in the United States and Canada.

We charge on a per-message basis for most of our Programmable Messaging products.

### ***Programmable Video***

Programmable Video provides developers with the building blocks to add voice and video to web and mobile applications. Developers can address multiple use cases such as remote customer care, multi-party collaboration, video consultations and more by leveraging Programmable Video's global cloud infrastructure and powerful SDKs to build on WebRTC. Programmable Video includes:

- **Twilio Video.** Create rich, multi-party video experiences in web and mobile applications with features such as one-to-one and multi-party video calling, cloud based recordings, screen sharing etc.
- **Network Traversal.** Provide low-latency, cost-effective and reliable Session Traversal Utilities for Network Address Translation ("STUN") and Traversal Using Relay for Network Address Translation ("TURN") capabilities distributed across five continents. This functionality allows developers to initiate peer-to-peer video sessions across any internet-connected device globally.

We charge on a per-connected-endpoint, per-active-endpoint and per-gigabit basis for our Programmable Video products.

### ***Email***

Our email products serve as a digital communication platform that enables businesses to engage with their customers via email reliably and effectively, at scale. Businesses use our email products for both transactional and marketing emails. Transactional emails include shipping notifications, friend requests, password resets, and sign-up confirmations. Marketing emails include newsletters, advertising, announcements, and related communications to large audiences.

- **Integrations.** Businesses can integrate our email API with multiple leading development frameworks and client libraries, including Node.js, Ruby, Python, Go, Hypertext Preprocessor, Java, and C#.

- **Internet Protocol ("IP"), Management.** Domains and links can be customized, whether sending from shared IP address pools or a dedicated IP address, for improved reputation management and delivery.
- **Deliverability.** Our custom Sender Policy Framework and DomainKeys Identified Mail record creation is designed to eliminate domain spoofing and phishing.
- **Mobile support.** Our deep linking functionality enables email engagement for mobile apps.
- **Security.** Our two-factor authentication, API key permissions, and IP Address Access Management helps enable secure management of our email API by our customers.

### **Super Network**

Our Customer Engagement Platform is built on top of our Super Network, which powers Twilio's global connectivity and is the foundation for our trusted communications platform. It is a global network of connections with numerous carriers globally to provide connectivity and phone numbers in approximately 100 countries. We do not own any physical network infrastructure. We use software to build a high performance network that optimizes performance for our customers, providing resiliency and redundancy to our platform, helping to minimize disruption from carrier delays or outages. The Super Network also contains a set of API's giving our customers access to more foundational components of our platform, like phone numbers and Session Initiation Protocol ("SIP") Trunking.

- **Phone Number Provisioning.** Acquire local, national, mobile and/or toll-free phone numbers on demand in approximately 100 countries and connect them into the customers' applications.
- **Short Codes.** A five to seven digit phone number in the United States, Canada and the United Kingdom used to send and receive a high-volume of messages per second.
- **Elastic SIP Trunking.** Connect legacy voice applications to our Super Network over IP infrastructure with globally available phone numbers and pay-as-you-go pricing.
- **Interconnect.** Connect privately to Twilio to enable enterprise grade security and quality of service for Twilio Voice and Elastic SIP Trunking.

We charge on a per-minute or per-phone-number basis for most of our Super Network products.

### **Our Employees**

As of December 31, 2019, we had a total of 2,905 employees, including 720 employees located outside of the United States. None of our U.S. employees are represented by a labor union with respect to their employment. Employees in certain of our non-U.S. subsidiaries have the benefits of collective bargaining arrangements at the national level. We consider our relations with our employees to be good and have not experienced interruptions of operations or work stoppages due to labor disagreements.

### **Research and Development**

Our research and development efforts are focused on building a trusted communications platform and enhancing our existing products and developing new products.

Our research and development organization is built around small development teams. Our small development teams foster greater agility, which enables us to develop new, innovative products and make rapid changes to our infrastructure that increase resiliency and operational efficiency. Our development teams designed, built and continue to expand our Customer Engagement Platform and Super Network.

As of December 31, 2019, we had 1,331 employees in our research and development organization. We intend to continue to invest in our research and development capabilities to extend our platform and bring the power of contextual communications to a broader range of applications, geographies and customers.

### **Sales and Marketing**

Our sales and marketing teams work together closely to drive awareness and adoption of our platform, accelerate customer acquisition and generate revenue from customers.

Our go-to-market model is primarily focused on reaching and serving the needs of developers. We are a pioneer of developer evangelism and education and have cultivated a large global developer community. We reach developers through community events and conferences, including our annual SIGNAL customer and developer conference, to demonstrate how every developer can create differentiated applications incorporating communications using our products.

Once developers are introduced to our platform, we provide them with a low-friction trial experience. By accessing our easy-to-configure APIs, extensive self-service documentation and customer support team, developers can build our products into their applications and then test such applications during an initial free trial period that we provide. Once they have decided to use our products beyond the initial free trial period, customers provide their credit card information and only pay for the actual usage of our products, for a majority of our products. Our Flex contact center platform is generally offered on a per user, per month basis or on a usage basis per agent hour. Our email API is offered on a monthly subscription basis, while our Marketing Campaigns product is priced based on the number of email contacts stored on our platform and the number of monthly emails sent to those contacts through our email API. Our self-serve pricing matrix is publicly available and it allows for customers to receive automatic tiered discounts as their usage of our products increases. As customers' use of our products grows larger, some enter into negotiated contracts with terms that dictate pricing, and typically include some level of minimum revenue commitments. Historically, we have acquired the substantial majority of our customers through this self-service model. As customers expand their usage of our platform, our relationships with them often evolve to include business leaders within their organizations. Once our customers reach a certain spending level with us, we support them with account managers or customer success advocates to ensure their satisfaction and expand their usage of our products.

We also supplement our self-service model with a sales effort aimed at engaging larger potential customers and existing customers through a direct sales approach. To help increase our awareness in the enterprise, we have expanded our marketing efforts through programs like our Twilio Engage roadshow, where we seek to bring business leaders and developers together to discuss the future of customer engagement. We have developed products to support this effort as well, like the Twilio Enterprise Plan, which provides capabilities for advanced security, access management and granular administration. Our sales organization targets technical leaders and business leaders who are seeking to leverage software to drive competitive differentiation. As we educate these leaders on the benefits of developing applications incorporating our products to differentiate their business, they often consult with their developers regarding implementation. We believe that developers are often advocates for our products as a result of our developer-focused approach. Our sales organization includes sales development, inside sales, field sales and sales engineering personnel.

When potential customers do not have the available developer resources to build their own applications, we refer them to either our technology partners who embed our products in the solutions that they sell to other businesses (such as contact centers and sales force and marketing automation), or our consulting partners who provide consulting and development services for organizations that have limited software development expertise to build our platform into their software applications.

As of December 31, 2019, we had 1,205 employees in our sales and marketing organization.

### **Customer Support**

We have designed our products and platform to be self-service and to require minimal customer support. To enable this, we provide all of our users with helper libraries, comprehensive documentation, how-tos and tutorials. We supplement and enhance these tools with the participation of our engaged developer community. In addition, we provide support options to address the individualized needs of our customers. All developers get free email-based support with API status notifications. Our developers can also engage with the broader Twilio community to resolve certain issues.

We also offer three paid tiers of email and phone support with increasing levels of availability and guaranteed response times. Our highest tier personalized plan is intended for our largest customers and includes guaranteed response times that vary based on the priority of the request, a dedicated support engineer, a duty manager and quarterly status review. Our support model is global, with 24x7 coverage and support offices located in the United States, the United Kingdom, Estonia and Singapore. We currently derive an insignificant amount of revenue from fees for customer support.

### **Competition**

The market for Cloud Communications Platform is rapidly evolving and increasingly competitive. We believe that the principal competitive factors in our market are:

- completeness of offering;
- credibility with developers;

- global reach;
- ease of integration and programmability;
- product features;
- platform scalability, reliability, security and performance;
- brand awareness and reputation;
- the strength of sales and marketing efforts;
- customer support; and,
- the cost of deploying and using our products.

We believe that we compete favorably on the basis of the factors listed above. We believe that none of our competitors currently competes directly with us across all of our product offerings.

Our competitors fall into four primary categories:

- legacy on-premises vendors, such as Avaya and Cisco;
- regional network service providers that offer limited developer functionality on top of their own physical infrastructure;
- smaller software companies that compete with portions of our product line; and,
- software-as-a-service ("SaaS") companies and cloud platform vendors that offer prepackaged applications and platforms.

Some of our competitors have greater financial, technical and other resources, greater name recognition, larger sales and marketing budgets and larger intellectual property portfolios. As a result, certain of our competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards or customer requirements. In addition, some competitors may offer products or services that address one or a limited number of functions at lower prices, with greater depth than our products or geographies where we do not operate. With the introduction of new products and services and new market entrants, we expect competition to intensify in the future. Moreover, as we expand the scope of our platform, we may face additional competition.

## **Intellectual Property**

We rely on a combination of patent, copyright, trademark and trade secret laws in the United States and other jurisdictions, as well as license agreements and other contractual protections, to protect our proprietary technology. We also rely on a number of registered and unregistered trademarks to protect our brand.

As of December 31, 2019, in the United States, we had been issued 131 patents, which expire between 2029 and 2037. As of such date, we also had 27 issued patents in foreign jurisdictions, all of which are related to U.S. patents and patent applications. We have also filed various applications for protection of certain aspects of our intellectual property in the United States and internationally. In addition, as of December 31, 2019, we had 32 trademarks registered in the United States and 163 trademarks registered in foreign jurisdictions.

We further seek to protect our intellectual property rights by implementing a policy that requires our employees and independent contractors involved in development of intellectual property on our behalf to enter into agreements acknowledging that all works or other intellectual property generated or conceived by them on our behalf are our property, and assigning to us any rights, including intellectual property rights, that they may claim or otherwise have in those works or property, to the extent allowable under applicable law.

Despite our efforts to protect our technology and proprietary rights through intellectual property rights, licenses and other contractual protections, unauthorized parties may still copy or otherwise obtain and use our software and other technology. In addition, we intend to continue to expand our international operations, and effective intellectual property, copyright, trademark and trade secret protection may not be available or may be limited in foreign countries. Any significant impairment of our intellectual property rights could harm our business or our ability to compete. Further, companies in the

communications and technology industries may own large numbers of patents, copyrights and trademarks and may frequently threaten litigation, or file suit against us based on allegations of infringement or other violations of intellectual property rights. We currently are subject to, and expect to face in the future, allegations that we have infringed the intellectual property rights of third parties, including our competitors and non-practicing entities.

## **Regulatory**

We are subject to a number of U.S. federal and state and foreign laws and regulations that involve matters central to our business. These laws and regulations may involve privacy, data protection, intellectual property, competition, telecommunications, broadband, Voice over Internet Protocol ("VoIP"), consumer protection, export taxation or other subjects. Many of the laws and regulations to which we are subject are still evolving and being tested in courts and by regulatory authorities and could be interpreted in ways that could harm our business. In addition, the application and interpretation of these laws and regulations often are uncertain, particularly in the new and rapidly evolving industry in which we operate. Because U.S., federal, state and foreign laws and regulations have continued to develop and evolve rapidly, it is possible that we or our products or our platform may not be, or may not have been, compliant with each such applicable law or regulation.

For example, GDPR, which took full effect on May 25, 2018, enhanced data protection obligations for businesses and requires service providers (data processors) processing personal data on behalf of customers to cooperate with European data protection authorities, implement security measures and keep records of personal data processing activities. Noncompliance with the GDPR can trigger fines equal to the greater of € 20 million or 4% of global annual revenue. Given the breadth and depth of changes in data protection obligations, meeting the requirements of GDPR has required significant time and resources, including a review of our technology and systems currently in use against the requirements of GDPR. We have taken steps to comply with GDPR, including integrating GDPR-compliant privacy protections into our products and platform, commercial agreements and record-keeping practices to help us and our customers meet the compliance obligations of GDPR. However, additional EU laws and regulations (and member states' implementations thereof) further govern the protection of consumers and of electronic communications. If our efforts to comply with GDPR or other applicable U.S., federal, state or foreign laws and regulations are not successful, we may be subject to penalties and fines that would adversely impact our business and results of operations, and our ability to conduct business in the EU or other regions could be significantly impaired.

In addition, the Telephone Consumer Protection Act of 1991 ("TCPA"), restricts telemarketing and the use of automatic text messages without proper consent. The scope and interpretation of the laws that are or may be applicable to the delivery of text messages are continuously evolving and developing. If we do not comply with these laws, or regulations or if we become liable under these laws or regulations due to the failure of our customers to comply with these laws by obtaining proper consent, we could face direct liability.

## **Corporate Information**

Twilio Inc. was incorporated in Delaware in March 2008. Our principal executive offices are located at 101 Spear Street, First Floor, San Francisco, California 94105, and our telephone number is (415) 390-2337. Our website address is [www.twilio.com](http://www.twilio.com). Information contained on, or that can be accessed through, our website does not constitute part of this Annual Report on Form 10-K.

Twilio, the Twilio logo and other trademarks or service marks of Twilio appearing in this Annual Report on Form 10-K are the property of Twilio. Trade names, trademarks and service marks of other companies appearing in this Annual Report on Form 10-K are the property of their respective holders.

## **Information about Geographic Revenue**

Information about geographic revenue is set forth in Note 11 of our Notes to our Consolidated Financial Statements included in Part II, Item 8, "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

## **Available Information**

The following filings are available through our investor relations website after we file them with the Securities and Exchange Commission ("SEC"): Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and our Proxy Statement for our annual meeting of stockholders. These filings are also available for download free of charge on our investor relations website. Our investor relations website is located at <http://investors.twilio.com>. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is [www.sec.gov](http://www.sec.gov).

We webcast our earnings calls and certain events we participate in or host with members of the investment community on our investor relations website. Additionally, we provide notifications of news or announcements regarding our financial performance, including SEC filings, investor events, press and earnings releases, and blogs as part of our investor relations website. Further corporate governance information, including our corporate governance guidelines and code of business conduct and ethics, is also available on our investor relations website under the heading "Corporate Governance." The contents of our websites are not intended to be incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

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

*A description of the risks and uncertainties associated with our business is set forth below. You should carefully consider the risks and uncertainties described below, together with all of the other information in this Annual Report on Form 10-K, including Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. The risks and uncertainties described below may not be the only ones we face. If any of the risks actually occur, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the market price of our Class A common stock could decline.*

### **Risks Related to Our Business and Our Industry**

***The market for our products and platform is new and unproven, may decline or experience limited growth and is dependent in part on developers continuing to adopt our platform and use our products.***

We were founded in 2008, and we have been developing and providing a cloud-based platform that enables developers and organizations to integrate voice, messaging, video and email communications capabilities into their software applications. This market is relatively new and unproven and is subject to a number of risks and uncertainties. We believe that our revenue currently constitutes a significant portion of the total revenue in this market, and therefore, we believe that our future success will depend in large part on the growth, if any, of this market. The utilization of APIs by developers and organizations to build communications functionality into their applications is still relatively new, and developers and organizations may not recognize the need for, or benefits of, our products and platform. Moreover, if they do not recognize the need for and benefits of our products and platform, they may decide to adopt alternative products and services to satisfy some portion of their business needs. In order to grow our business and extend our market position, we intend to focus on educating developers and other potential customers about the benefits of our products and platform, expanding the functionality of our products and bringing new technologies to market to increase market acceptance and use of our platform. Our ability to expand the market that our products and platform address depends upon a number of factors, including the cost, performance and perceived value associated with such products and platform. The market for our products and platform could fail to grow significantly or there could be a reduction in demand for our products as a result of a lack of developer acceptance, technological challenges, competing products and services, decreases in spending by current and prospective customers, weakening economic conditions and other causes. If our market does not experience significant growth or demand for our products decreases, then our business, results of operations and financial condition could be adversely affected.

***We have experienced rapid growth and expect our growth to continue, and if we fail to effectively manage our growth, then our business, results of operations and financial condition could be adversely affected.***

We have experienced substantial growth in our business since inception. For example, our headcount has grown from 1,440 employees on December 31, 2018 to 2,905 employees on December 31, 2019. In addition, we are rapidly expanding our international operations. Our international headcount grew from 351 employees as of December 31, 2018 to 720 employees as of December 31, 2019. We expect to continue to expand our international operations in the future. We have also experienced significant growth in the number of customers, usage and amount of data that our platform and associated infrastructure support. This growth has placed and may continue to place significant demands on our corporate culture, operational infrastructure and management.

We believe that our corporate culture has been a critical component of our success. We have invested substantial time and resources in building our team and nurturing our culture. As we expand our business in the U.S. and non-U.S. regions and mature as a public company, we may find it difficult to maintain our corporate culture while managing this growth. Any failure to manage our anticipated growth and organizational changes in a manner that preserves the key aspects of our culture could hurt our chance for future success, including our ability to recruit and retain personnel, and effectively focus on and pursue our corporate objectives. This, in turn, could adversely affect our business, results of operations and financial condition.



In addition, in order to successfully manage our rapid growth, our organizational structure has become more complex. In order to manage these increasing complexities, we will need to continue to scale and adapt our operational, financial and management controls, as well as our reporting systems and procedures. The expansion of our systems and infrastructure will require us to commit substantial financial, operational and management resources before our revenue increases and without any assurances that our revenue will increase.

Finally, continued growth could strain our ability to maintain reliable service levels for our customers. If we fail to achieve the necessary level of efficiency in our organization as we grow, then our business, results of operations and financial condition could be adversely affected.

***Our quarterly results may fluctuate, and if we fail to meet securities analysts' and investors' expectations, then the trading price of our Class A common stock and the value of your investment could decline substantially.***

Our results of operations, including the levels of our revenue, cost of revenue, gross margin and operating expenses, have fluctuated from quarter to quarter in the past and may continue to vary significantly in the future. These fluctuations are a result of a variety of factors, many of which are outside of our control, may be difficult to predict and may or may not fully reflect the underlying performance of our business. If our quarterly results of operations or forward-looking quarterly and annual financial guidance fall below the expectations of investors or securities analysts, then the trading price of our Class A common stock could decline substantially. Some of the important factors that may cause our results of operations to fluctuate from quarter to quarter include:

- our ability to retain and increase revenue from existing customers and attract new customers;
- fluctuations in the amount of revenue from our Active Customer Accounts;
- our ability to attract and retain enterprises and international organizations as customers;
- our ability to introduce new products and enhance existing products;
- competition and the actions of our competitors, including pricing changes and the introduction of new products, services and geographies;
- changes in laws, industry standards, regulations or regulatory enforcement, in the United States or internationally, including SHAKEN/STIR and other robocalling prevention and anti-spam standards as well as enhanced Know-Your-Client processes that impact our ability to market, sell or deliver our products;
- the number of new employees;
- changes in network service provider fees that we pay in connection with the delivery of communications on our platform;
- changes in cloud infrastructure fees that we pay in connection with the operation of our platform;
- changes in our pricing as a result of our optimization efforts or otherwise;
- reductions in pricing as a result of negotiations with our larger customers;
- the rate of expansion and productivity of our sales force, including our enterprise sales force, which has been a focus of our recent expansion efforts;
- changes in the size and complexity of our customer relationships;
- the length and complexity of the sales cycle for our services, especially for sales to larger enterprises, government and regulated organizations;
- change in the mix of products that our customers use;
- change in the revenue mix of U.S. and international products;

- the amount and timing of operating costs and capital expenditures related to the operations and expansion of our business, including investments in our international expansion, additional systems and processes and research and development of new products and services;
- significant security breaches of, technical difficulties with, or interruptions to, the delivery and use of our products on our platform;
- the timing of customer payments and any difficulty in collecting accounts receivable from customers;
- general economic conditions that may adversely affect a prospective customer's ability or willingness to adopt our products, delay a prospective customer's adoption decision, reduce the revenue that we generate from the use of our products or affect customer retention;
- changes in foreign currency exchange rates and our ability to effectively hedge our foreign currency exposure;
- extraordinary expenses such as litigation or other dispute-related settlement payments;
- sales tax and other tax determinations by authorities in the jurisdictions in which we conduct business;
- the impact of new accounting pronouncements;
- expenses in connection with mergers, acquisitions or other strategic transactions and the follow-on costs of integration;
- our ability to realize the anticipated benefits from the acquisition of SendGrid, including the ability to retain SendGrid customers and to cross-sell additional products; and
- fluctuations in stock-based compensation expense.

The occurrence of one or more of the foregoing and other factors may cause our results of operations to vary significantly. As such, we believe that quarter-to-quarter comparisons of our results of operations may not be meaningful and should not be relied upon as an indication of future performance. In addition, a significant percentage of our operating expenses is fixed in nature and is based on forecasted revenue trends. Accordingly, in the event of a revenue shortfall, we may not be able to mitigate the negative impact on our income (loss) and margins in the short term. If we fail to meet or exceed the expectations of investors or securities analysts, then the trading price of our Class A common stock could fall substantially, and we could face costly lawsuits, including securities class action suits.

Additionally, certain large scale events, such as major elections and sporting events, can significantly impact usage levels on our platform, which could cause fluctuations in our results of operations. We expect that significantly increased usage of all communications platforms, including ours, during certain seasonal and one-time events could impact delivery and quality of our products during those events. We also tend to experience increased expenses in connection with the hosting of SIGNAL, our customer and developer conference, which we hosted in the third quarter of 2019 and plan to host annually. Such annual and one-time events may cause fluctuations in our results of operations and may impact both our revenue and operating expenses.

***If we are not able to maintain and enhance our brand and increase market awareness of our company and products, then our business, results of operations and financial condition may be adversely affected.***

We believe that maintaining and enhancing the "Twilio" brand identity and increasing market awareness of our company and products, particularly among developers, is critical to achieving widespread acceptance of our platform, to strengthen our relationships with our existing customers and to our ability to attract new customers. The successful promotion of our brand will depend largely on our continued marketing efforts, our ability to continue to offer high quality products, our ability to be thought leaders in the cloud communications market and our ability to successfully differentiate our products and platform from competing products and services. Our brand promotion and thought leadership activities may not be successful or yield increased revenue. In addition, independent industry analysts often provide reviews of our products and competing products and services, which may significantly influence the perception of our products in the marketplace. If these reviews are negative or not as strong as reviews of our competitors' products and services, then our brand may be harmed.

From time to time, our customers have complained about our products, such as complaints about our pricing and customer support. If we do not handle customer complaints effectively, then our brand and reputation may suffer, our customers may lose confidence in us and they may reduce or cease their use of our products. In addition, many of our customers post and discuss on social media about Internet-based products and services, including our products and platform. Our success depends, in part, on our ability to generate positive customer feedback and minimize negative feedback on social media channels where existing and potential customers seek and share information. If actions we take or changes we make to our products or platform upset these customers, then their online commentary could negatively affect our brand, reputation and customer trust. Complaints or negative publicity about us, our products or our platform could materially and adversely impact our ability to attract and retain customers, our business, results of operations and financial condition.

The promotion of our brand also requires us to make substantial expenditures, and we anticipate that these expenditures will increase as our market becomes more competitive and as we expand into new markets. To the extent that these activities increase revenue, this revenue still may not be enough to offset the increased expenses we incur. If we do not successfully maintain and enhance our brand, then our business may not grow, we may see our pricing power reduced relative to competitors and we may lose customers, all of which would adversely affect our business, results of operations and financial condition.

***Our business depends on customers increasing their use of our products, and any loss of customers or decline in their use of our products could materially and adversely affect our business, results of operations and financial condition.***

Our ability to grow and generate incremental revenue depends, in part, on our ability to maintain and grow our relationships with existing customers (including any customers acquired in connection with our acquisitions) and to have them increase their usage of our platform. If our customers do not increase their use of our products, then our revenue may decline, and our results of operations may be harmed. Customers are charged based on the usage of our products. Most of our customers do not have long-term contractual financial commitments to us and, therefore, most of our customers may reduce or cease their use of our products at any time without penalty or termination charges. Customers may terminate or reduce their use of our products for any number of reasons, including if they are not satisfied with our products, the value proposition of our products or our ability to meet their needs and expectations. We cannot accurately predict customers' usage levels and the loss of customers or reductions in their usage levels of our products may each have a negative impact on our business, results of operations and financial condition and may cause our Dollar-Based Net Expansion Rate to decline in the future if customers are not satisfied with our products, the value proposition of our products or our ability to meet their needs and expectations. If a significant number of customers cease using, or reduce their usage of our products, then we may be required to spend significantly more on sales and marketing than we currently plan to spend in order to maintain or increase revenue from customers. Such additional sales and marketing expenditures could adversely affect our business, results of operations and financial condition.

***If we are unable to attract new customers in a cost-effective manner, then our business, results of operations and financial condition would be adversely affected.***

In order to grow our business, we must continue to attract new customers in a cost-effective manner. We use a variety of marketing channels to promote our products and platform, such as developer events and developer evangelism, as well as search engine marketing and optimization. We periodically adjust the mix of our other marketing programs such as regional customer events, email campaigns, billboard advertising and public relations initiatives. If the costs of the marketing channels we use increase dramatically, then we may choose to use alternative and less expensive channels, which may not be as effective as the channels we currently use. As we add to or change the mix of our marketing strategies, we may need to expand into more expensive channels than those we are currently in, which could adversely affect our business, results of operations and financial condition. We will incur marketing expenses before we are able to recognize any revenue that the marketing initiatives may generate, and these expenses may not result in increased revenue or brand awareness. We have made in the past, and may make in the future, significant expenditures and investments in new marketing campaigns, and we cannot guarantee that any such investments will lead to the cost-effective acquisition of additional customers. We also cannot guarantee that our current or future marketing efforts will be as effective in attracting new or existing customers to purchase products historically offered by SendGrid. If we are unable to maintain effective marketing programs, then our ability to attract new customers could be materially and adversely affected, our advertising and marketing expenses could increase substantially, and our results of operations may suffer.

***If we do not develop enhancements to our products and introduce new products that achieve market acceptance, our business, results of operations and financial condition could be adversely affected.***

Our ability to attract new customers and increase revenue from existing customers depends in part on our ability to enhance and improve our existing products, increase adoption and usage of our products and introduce new products. The success of any enhancements or new products depends on several factors, including timely completion, adequate quality testing, actual performance quality, market-accepted pricing levels and overall market acceptance. Enhancements and new products that we develop may not be introduced in a timely or cost-effective manner, may contain errors or defects, may have interoperability difficulties with our platform or other products or may not achieve the broad market acceptance necessary to generate significant revenue. Furthermore, our ability to increase the usage of our products depends, in part, on the development of new use cases for our products, which is typically driven by our developer community and may be outside of our control. We also have invested, and may continue to invest, in the acquisition of complementary businesses, technologies, services, products and other assets that expand the products that we can offer our customers. We may make these investments without being certain that they will result in products or enhancements that will be accepted by existing or prospective customers. Our ability to generate usage of additional products by our customers may also require increasingly sophisticated and more costly sales efforts and result in a longer sales cycle. If we are unable to successfully enhance our existing products to meet evolving customer requirements, increase adoption and usage of our products, develop new products, or if our efforts to increase the usage of our products are more expensive than we expect, then our business, results of operations and financial condition would be adversely affected.

***The market in which we participate is intensely competitive, and if we do not compete effectively, our business, results of operations and financial condition could be harmed.***

The market for cloud communications is rapidly evolving, significantly fragmented and highly competitive, with relatively low barriers to entry in some segments. The principal competitive factors in our market include completeness of offering, credibility with developers, global reach, ease of integration and programmability, product features, platform scalability, reliability, deliverability, security and performance, brand awareness and reputation, the strength of sales and marketing efforts, customer support, as well as the cost of deploying and using our products. Our competitors fall into four primary categories:

- legacy on-premise vendors, such as Avaya and Cisco;
- regional network service providers that offer limited developer functionality on top of their own physical infrastructure;
- smaller software companies that compete with portions of our product line; and
- software-as-a-service (“SaaS”) companies and cloud platform vendors that offer prepackaged applications and platforms.

Some of our competitors and potential competitors are larger and have greater name recognition, longer operating histories, more established customer relationships, larger budgets and significantly greater resources than we do. In addition, they have the operating flexibility to bundle competing products and services at little or no perceived incremental cost, including offering them at a lower price as part of a larger sales transaction. As a result, our competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards or customer requirements. In addition, some competitors may offer products or services that address one or a limited number of functions at lower prices, with greater depth than our products or in different geographies. Our current and potential competitors may develop and market new products and services with comparable functionality to our products, and this could lead to us having to decrease prices in order to remain competitive. Customers utilize our products in many ways and use varying levels of functionality that our products offer or are capable of supporting or enabling within their applications. Customers that use many of the features of our products or use our products to support or enable core functionality for their applications may have difficulty or find it impractical to replace our products with a competitor’s products or services, while customers that use only limited functionality may be able to more easily replace our products with competitive offerings. Our customers also may choose to build some of the functionality our products provide, which may limit or eliminate their demand for our products.

With the introduction of new products and services and new market entrants, we expect competition to intensify in the future. In addition, some of our customers may choose to use our products and our competitors’ products at the same time. Further, customers and consumers may choose to adopt other forms of electronic communications or alternative communication platforms.

Moreover, as we expand the scope of our products, we may face additional competition. If one or more of our competitors were to merge or partner with another of our competitors, the change in the competitive landscape could also

adversely affect our ability to compete effectively. In addition, some of our competitors have lower list prices than us, which may be attractive to certain customers even if those products have different or lesser functionality. If we are unable to maintain our current pricing due to competitive pressures, our margins will be reduced and our business, results of operations and financial condition would be adversely affected. In addition, pricing pressures and increased competition generally could result in reduced revenue, reduced margins, increased losses or the failure of our products to achieve or maintain widespread market acceptance, any of which could harm our business, results of operations and financial condition.

***We have a history of losses and we are uncertain about our future profitability.***

We have incurred net losses in each year since our inception, including net losses of \$307.1 million, \$121.9 million and \$63.7 million in the years ended December 31, 2019, 2018 and 2017, respectively. We had an accumulated deficit of \$678.8 million as of December 31, 2019. We expect to continue to expend substantial financial and other resources on, among other things:

- investments in our engineering team, improvements in security and data protection, the development of new products, features and functionality and enhancements to our platform;
- sales and marketing, including the continued expansion of our direct sales organization and marketing programs, especially for enterprises and for organizations outside of the United States, and expanding our programs directed at increasing our brand awareness among current and new developers;
- expansion of our operations and infrastructure, both domestically and internationally; and
- general administration, including legal, accounting and other expenses related to being a public company.

These investments may not result in increased revenue or growth of our business. We also expect that our revenue growth rate will decline over time. Accordingly, we may not be able to generate sufficient revenue to offset our expected cost increases and achieve and sustain profitability. If we fail to achieve and sustain profitability, then our business, results of operations and financial condition would be adversely affected.

***If we are unable to increase adoption of our products by enterprises, our business, results of operations and financial condition may be adversely affected.***

Historically, we have relied on the adoption of our products by software developers through our self-service model for a significant majority of our revenue, and we currently generate only a small portion of our revenue from enterprise customers. Our ability to increase our customer base, especially among enterprises, and achieve broader market acceptance of our products will depend, in part, on our ability to effectively organize, focus and train our sales and marketing personnel. We have limited experience selling to enterprises and only recently established an enterprise-focused sales force.

Our ability to convince enterprises to adopt our products will depend, in part, on our ability to attract and retain sales personnel with experience selling to enterprises. We believe that there is significant competition for experienced sales professionals with the skills and technical knowledge that we require. Our ability to achieve significant revenue growth in the future will depend, in part, on our ability to recruit, train and retain a sufficient number of experienced sales professionals, particularly those with experience selling to enterprises. In addition, even if we are successful in hiring qualified sales personnel, new hires require significant training and experience before they achieve full productivity, particularly for sales efforts targeted at enterprises and new territories. Our recent hires and planned hires may not become as productive as quickly as we expect, and we may be unable to hire or retain sufficient numbers of qualified individuals in the future in the markets where we do business. Because we do not have a long history of targeting our sales efforts at enterprises, we cannot predict whether, or to what extent, our sales will increase as we organize and train our sales force or how long it will take for sales personnel to become productive.

As we seek to increase the adoption of our products by enterprises, including products like Flex, which is primarily aimed at complex contact center implementations at larger companies, we expect to incur higher costs and longer sales cycles. In the enterprise market segment, the decision to adopt our products may require the approval of multiple technical and business decision makers, including legal, security, compliance, procurement, operations and IT. In addition, while enterprise customers may quickly deploy our products on a limited basis, before they will commit to deploying our products at scale, they often require extensive education about our products and significant customer support time, engage in protracted pricing negotiations and seek to secure readily available development resources. In addition, sales cycles for enterprises are inherently more complex and less predictable than the sales through our self-service model, and some enterprise customers may not use

our products enough to generate revenue that justifies the cost to obtain such customers. In addition, these complex and resource intensive sales efforts could place additional strain on our product and engineering resources. Further, enterprises, including some of our customers, may choose to develop their own solutions that do not include our products. They also may demand reductions in pricing as their usage of our products increases, which could have an adverse impact on our gross margin. As a result of our limited experience selling and marketing to enterprises, our efforts to sell to these potential customers may not be successful. If we are unable to increase the revenue that we derive from enterprises, then our business, results of operations and financial condition may be adversely affected.

***If we are unable to expand our relationships with existing technology partner customers and add new technology partner customers, our business, results of operations and financial condition could be adversely affected.***

We believe that the continued growth of our business depends in part upon developing and expanding strategic relationships with technology partner customers. Technology partner customers embed our software products in their solutions, such as software applications for contact centers and sales force and marketing automation, and then sell such solutions to other businesses. When potential customers do not have the available developer resources to build their own applications, we refer them to either our technology partners who embed our products in the solutions that they sell to other businesses or our consulting partners who provide consulting and development services for organizations that have limited software development expertise to build our platform into their software applications.

As part of our growth strategy, we intend to expand our relationships with existing technology partner customers and add new technology partner customers. If we fail to expand our relationships with existing technology partner customers or establish relationships with new technology partner customers in a timely and cost-effective manner, or at all, then our business, results of operations and financial condition could be adversely affected. Additionally, even if we are successful at building these relationships but there are problems or issues with integrating our products into the solutions of these customers, our reputation and ability to grow our business may be harmed.

***We rely upon Amazon Web Services to operate our platform, and any disruption of or interference with our use of Amazon Web Services would adversely affect our business, results of operations and financial condition.***

We outsource a substantial majority of our cloud infrastructure to Amazon Web Services (“AWS”), which hosts our products and platform. Our customers need to be able to access our platform at any time, without interruption or degradation of performance. AWS runs its own platform that we access, and we are, therefore, vulnerable to service interruptions at AWS. We have experienced, and expect that in the future we may experience interruptions, delays and outages in service and availability due to a variety of factors, including infrastructure changes, human or software errors, website hosting disruptions and capacity constraints. Capacity constraints could be due to a number of potential causes, including technical failures, natural disasters, fraud or security attacks. For instance, in September 2015, AWS suffered a significant outage that had a widespread impact on the ability of our customers to use several of our products. In addition, if our security, or that of AWS, is compromised, or our products or platform are unavailable or our users are unable to use our products within a reasonable amount of time or at all, then our business, results of operations and financial condition could be adversely affected. In some instances, we may not be able to identify the cause or causes of these performance problems within a period of time acceptable to our customers. It may become increasingly difficult to maintain and improve our platform performance, especially during peak usage times, as our products become more complex and the usage of our products increases. To the extent that we do not effectively address capacity constraints, either through AWS or alternative providers of cloud infrastructure, our business, results of operations and financial condition may be adversely affected. In addition, any changes in service levels from AWS may adversely affect our ability to meet our customers’ requirements.

The substantial majority of the services we use from AWS are for cloud-based server capacity and, to a lesser extent, storage and other optimization offerings. AWS enables us to order and reserve server capacity in varying amounts and sizes distributed across multiple regions. We access AWS infrastructure through standard IP connectivity. AWS provides us with computing and storage capacity pursuant to an agreement that continues until terminated by either party. AWS may terminate the agreement for cause upon notice and upon our failure to cure a breach within 30 days from the date of such notification. Although we expect that we could receive similar services from other third parties, if any of our arrangements with AWS are terminated, we could experience interruptions on our platform and in our ability to make our products available to customers, as well as delays and additional expenses in arranging alternative cloud infrastructure services.

Any of the above circumstances or events may harm our reputation, erode customer trust, cause customers to stop using our products, impair our ability to increase revenue from existing customers, impair our ability to grow our customer base, subject us to financial penalties and liabilities under our service level agreements and otherwise harm our business, results of operations and financial condition.

***To deliver our products, we rely on network service providers and internet service providers for our network service and connectivity and disruption or deterioration in the quality of these services could adversely effect our business, results of operations and financial condition.***

We currently interconnect with network service providers around the world to enable the use by our customers of our products over their networks. Although we are in the process of acquiring authorization in many countries for direct access to phone numbers, we expect that we will continue to rely on network service providers for these services. Where we don't have direct access to phone numbers, our reliance on network service providers has reduced our operating flexibility, ability to make timely service changes and control quality of service. In addition, the fees that we are charged by network service providers may change daily or weekly, while we do not typically change our customers' pricing as rapidly.

At times, network service providers have instituted additional fees due to regulatory, competitive or other industry related changes that increase our network costs. For example, in February 2020, a major U.S. mobile carrier introduced a new Application to Person (A2P) SMS service offering that adds a new fee for A2P SMS messages delivered to its subscribers. We expect other U.S. mobile carriers to follow suit. While we have historically responded to these types of fee increases through a combination of further negotiating efforts with our network service providers, absorbing the increased costs or changing our prices to customers, there is no guarantee that we will continue to be able to do so in the future without a material negative impact to our business. In the case of this new A2P SMS fee, we are passing these fees on to our customers who are sending SMS messages to this carrier's subscribers. This is expected to increase our revenue and cost of revenue, but it is not expected to impact the gross profit dollars received for sending these messages. However, mathematically this would still have a negative impact on our gross margins. Additionally, our ability to respond to any new fees may be constrained if all network service providers in a particular market impose equivalent fee structures, if the magnitude of the fees is disproportionately large when compared to the underlying prices paid by our customers, or if the market conditions limit our ability to increase the price we charge our customers.

Furthermore, many of these network service providers do not have long-term committed contracts with us and may interrupt services or terminate their agreements with us without notice. If a significant portion of our network service providers stop providing us with access to their infrastructure, fail to provide these services to us on a cost-effective basis, cease operations, or otherwise terminate these services, the delay caused by qualifying and switching to other network service providers could be time consuming and costly and could adversely affect our business, results of operations and financial condition. Further, if problems occur with our network service providers, it may cause errors or poor quality communications with our products, and we could encounter difficulty identifying the source of the problem. The occurrence of errors or poor quality communications on our products, whether caused by our platform or a network service provider, may result in the loss of our existing customers or the delay of adoption of our products by potential customers and may adversely affect our business, results of operations and financial condition.

We also interconnect with internet service providers around the world to enable the use of our email products by our customers, and we expect that we will continue to rely on internet service providers for network connectivity going forward. Our reliance on internet service providers reduces our control over quality of service and exposes us to potential service outages and rate fluctuations. If a significant portion of our internet service providers stop providing us with access to their network infrastructure, fail to provide access on a cost-effective basis, cease operations, or otherwise terminate access, the delay caused by qualifying and switching to other internet service providers could be time consuming and costly and could adversely affect our business, results of operations, and financial condition.

***Our future success depends in part on our ability to drive the adoption of our products by international customers.***

In the years ended December 31, 2019, 2018 and 2017, we derived 29%, 25% and 23% of our revenue, respectively, from customer accounts located outside the United States. The future success of our business will depend, in part, on our ability to expand our customer base worldwide. While we have been rapidly expanding our sales efforts internationally, our experience in selling our products outside of the United States is limited. Furthermore, our developer-first business model may not be successful or have the same traction outside the United States. As a result, our investment in marketing our products to these potential customers may not be successful. If we are unable to increase the revenue that we derive from international customers, then our business, results of operations and financial condition may be adversely affected.

***We are in the process of expanding our international operations, which exposes us to significant risks.***

We are continuing to expand our international operations to increase our revenue from customers outside of the United States as part of our growth strategy. Between December 31, 2018 and December 31, 2019, our international headcount grew from 351 employees to 720 employees. We expect to open additional international offices and hire employees to work at these

offices in order to reach new customers and gain access to additional technical talent. Operating in international markets requires significant resources and management attention and will subject us to regulatory, economic and political risks in addition to those we already face in the United States. Because of our limited experience with international operations or with developing and managing sales in international markets, our international expansion efforts may not be successful.

In addition, we will face risks in doing business internationally that could adversely affect our business, including:

- exposure to political developments in the United Kingdom ("U.K."), including the departure of the U.K. from the European Union ("EU") ("Brexit"), which has created an uncertain political and economic environment, instability for businesses, volatility in global financial markets and the value of foreign currencies, all of which could disrupt trade, the sale of our services and the mobility of our employees and contractors between the United Kingdom, EU and other jurisdictions. Any long-term impact from Brexit on our business and operations will depend, in part, on the outcome of the U.K.'s negotiations on tariffs, tax treaties, trade, regulatory, and other matters and may require us to expend significant time and expense to make adjustments to our business and operations.
- the difficulty of managing and staffing international operations and the increased operations, travel, infrastructure and legal compliance costs associated with servicing international customers and operating numerous international locations;
- our ability to effectively price our products in competitive international markets;
- new and different sources of competition or other changes to our current competitive landscape;
- understanding and reconciling different technical standards, data privacy and telecommunications regulations, registration and certification requirements outside the United States, which could prevent customers from deploying our products or limit their usage;
- our ability to comply with the General Data Protection Regulation ("GDPR"), which went into effect on May 25, 2018 and laws, regulations and industry standards relating to data privacy, data localization and security enacted in countries and other regions in which we operate or do business;
- potentially greater difficulty collecting accounts receivable and longer payment cycles;
- higher or more variable network service provider fees outside of the United States;
- the need to adapt and localize our products for specific countries;
- the need to offer customer support in various languages;
- difficulties in understanding and complying with local laws, regulations and customs in non-U.S. jurisdictions;
- export controls and economic sanctions administered by the Department of Commerce Bureau of Industry and Security and the Treasury Department's Office of Foreign Assets Control;
- compliance with various anti-bribery and anti-corruption laws such as the Foreign Corrupt Practices Act and United Kingdom Bribery Act of 2010;
- changes in international trade policies, tariffs and other non-tariff barriers, such as quotas and local content rules;
- more limited protection for intellectual property rights in some countries;
- adverse tax consequences;
- fluctuations in currency exchange rates, which could increase the price of our products outside of the United States, increase the expenses of our international operations and expose us to foreign currency exchange rate risk;
- currency control regulations, which might restrict or prohibit our conversion of other currencies into U.S. dollars;



- restrictions on the transfer of funds;
- deterioration of political relations between the United States and other countries;
- the impact of natural disasters and public health epidemics on employees, contractors, customers, partners, travel and the global economy; and
- political or social unrest or economic instability in a specific country or region in which we operate, which could have an adverse impact on our operations in that location.

Also, due to costs from our international expansion efforts and network service provider fees outside of the United States, which generally are higher than domestic rates, our gross margin for international customers is typically lower than our gross margin for domestic customers. As a result, our gross margin may be impacted and fluctuate as we expand our operations and customer base worldwide.

Our failure to manage any of these risks successfully could harm our international operations, and adversely affect our business, results of operations and financial condition.

***Our products and platform and our business are subject to a variety of U.S. and international laws and regulations, including those regarding privacy, data protection and information security, and our customers may be subject to regulations related to the handling and transfer of certain types of sensitive and confidential information. Any failure of our products to comply with or enable our customers and channel partners to comply with applicable laws and regulations would harm our business, results of operations and financial condition.***

We and our customers that use our products may be subject to privacy- and data protection-related laws and regulations that impose obligations in connection with the collection, processing and use of personal data, financial data, health or other similar data. The U.S. federal and various state and foreign governments have adopted or proposed limitations on, or requirements regarding, the collection, distribution, use, security and storage of personal data of individuals. The U.S. Federal Trade Commission and numerous state attorneys general are applying federal and state consumer protection laws to impose standards on the online collection, use and dissemination of data, and to the security measures applied to such data.

Similarly, many foreign countries and governmental bodies, including the EU member states, have laws and regulations concerning the collection and use of personal data obtained from individuals located in the EU or by businesses operating within their jurisdiction, which are often more restrictive than those in the United States. Laws and regulations in these jurisdictions apply broadly to the collection, use, storage, disclosure and security of personal data that identifies or may be used to identify an individual, such as names, telephone numbers, email addresses and, in some jurisdictions, IP addresses and other online identifiers.

For example, in April 2016 the EU adopted the GDPR, which took full effect on May 25, 2018. The GDPR enhances data protection obligations for businesses and requires service providers (data processors) processing personal data on behalf of customers to cooperate with European data protection authorities, implement security measures and keep records of personal data processing activities. Noncompliance with GDPR can trigger fines equal to or greater of €20 million or 4% of global annual revenues. Given the breadth and depth of changes in data protection obligations, preparing to meet the requirements of GDPR has required significant time and resources, including a review of our technology and systems currently in use against the requirements of GDPR. There are also additional EU laws and regulations (and member states implementations thereof) which govern the protection of consumers and of electronic communications. If our efforts to comply with GDPR or other applicable EU laws and regulations are not successful, we may be subject to penalties and fines that would adversely impact our business and results of operations, and our ability to conduct business in the EU could be significantly impaired.

We have in the past relied on the EU-U.S. and the Swiss-U.S. Privacy Shield frameworks approved by the European Commission in July 2016 and the Swiss Government in January 2017, respectively, which were designed to allow U.S. corporations to self-certify to the U.S. Department of Commerce and publicly commit to comply with the Privacy Shield requirements to freely import personal data from the EU and Switzerland. However, ongoing legal challenges to these frameworks has resulted in some uncertainty as to their validity. While our Binding Corporate Rules, approved in May 2018, now serve as our primary mechanism to legitimize data transfers from the European Economic Area, we may nonetheless experience hesitancy, reluctance, or refusal by European or multinational customers to continue to use our services due to the potential risk exposure to such customers as a result of a European Union Court of Justice ruling negatively impacting the Privacy Shield frameworks. We and our customers are at risk of enforcement actions taken by an EU data protection authority until such point in time that we are able to ensure that all data transfers to us from the European Economic Area are legitimized.

In addition, as the United Kingdom transitions out of the EU, we may encounter additional complexity with respect to data privacy and data transfers to and from the U.K.

Furthermore, outside of the EU, we continue to see increased regulation of data privacy and security, including the adoption of more stringent subject matter specific state laws in the United States. For example, on July 8, 2019, Brazil enacted the General Data Protection Law (Lei Geral de Proteção de Dados Pessoais) (Law No. 13,709/2018) ("LGPD") regulating the processing of personal data, which will take effect in August 2020. Also, on June 28, 2018, California enacted the California Consumer Privacy Act ("CCPA"), 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 state privacy legislation in the U.S., which could increase our potential liability and adversely affect our business.

As well, we continue to see jurisdictions imposing data localization laws, which require personal information, or certain subcategories of personal information to be stored in the jurisdiction of origin. These regulations may inhibit our ability to expand into those markets or prohibit us from continuing to offer services in those markets without significant additional costs.

The uncertainty and changes in the requirements of multiple jurisdictions may increase the cost of compliance, delay or reduce demand for our services, restrict our ability to offer services in certain locations, impact our customers' ability to deploy our solutions in certain jurisdictions, or subject us to sanctions, by national data protection regulators, all of which could harm our business, financial condition and results of operations.

Additionally, although we endeavor to have our products and platform comply with applicable laws and regulations, these and other obligations may be modified, they may be interpreted and applied in an inconsistent manner from one jurisdiction to another, and they may conflict with one another, other regulatory requirements, contractual commitments or our internal practices.

We also may be bound by contractual obligations relating to our collection, use and disclosure of personal, financial and other data or may find it necessary or desirable to join industry or other self-regulatory bodies or other privacy- or data protection-related organizations that require compliance with their rules pertaining to privacy and data protection.

We expect that there will continue to be new proposed laws, rules of self-regulatory bodies, regulations and industry standards concerning privacy, data protection and information security in the United States, the European Union and other jurisdictions, and we cannot yet determine the impact such future laws, rules, regulations and standards may have on our business. Moreover, existing U.S. federal and various state and foreign privacy- and data protection-related laws and regulations are evolving and subject to potentially differing interpretations, and various legislative and regulatory bodies may expand current or enact new laws and regulations regarding privacy- and data protection-related matters. Because global laws, regulations and industry standards concerning privacy and data security have continued to develop and evolve rapidly, it is possible that we or our products or platform may not be, or may not have been, compliant with each such applicable law, regulation and industry standard and compliance with such new laws or to changes to existing laws may impact our business and practices, require us to expend significant resources to adapt to these changes, or to stop offering our products in certain countries. These developments could adversely affect our business, results of operations and financial condition.

Any failure or perceived failure by us, our products or our platform to comply with new or existing U.S., EU or other foreign privacy or data security laws, regulations, policies, industry standards or legal obligations, or any security incident that results in the unauthorized access to, or acquisition, release or transfer of, personal data or other customer data may result in governmental investigations, inquiries, enforcement actions and prosecutions, private litigation, fines and penalties, adverse publicity or potential loss of business. For example, in February 2016, a putative class action complaint was filed in the Alameda County Superior Court in California and alleged that our products permitted the interception, recording and disclosure of communications at certain of our customers' request in a manner that violated the California Invasion of Privacy Act. This litigation has now settled, but actions in the future could lead to similar claims and include damages and related penalties that could divert management's attention and resources, as well as adversely affect our brand, business, results of operations and financial condition.

***Certain of our products are subject to telecommunications-related regulations, and future legislative or regulatory actions could adversely affect our business, results of operations and financial condition.***

As a provider of communications products, we are subject to existing or potential Federal Communications Commission (“FCC”) regulations relating to privacy, telecommunications, consumer protection and other requirements. In addition, classification of our voice communications products as telecommunications or interconnected VoIP services or the extension of telecommunications regulations to our non-interconnected VoIP services could result in additional federal and state regulatory obligations. If we do not comply with FCC rules and regulations, we could be subject to FCC enforcement actions, fines, loss of licenses and possibly restrictions on our ability to operate or offer certain of our products. Any enforcement action by the FCC, which may be a public process, would hurt our reputation in the industry, could erode customer trust, possibly impair our ability to sell our products to customers and could adversely affect our business, results of operations and financial condition.

Our products are subject to a number of FCC regulations and laws that are administered by the FCC. Among others, we must comply (in whole or in part) with:

- the Communications Act of 1934, as amended, which regulates communications services and the provision of such services;
- the Telephone Consumer Protection Act, which limits the use of automatic dialing systems, artificial or prerecorded voice messages, SMS text messages and fax machines;
- the Communications Assistance for Law Enforcement Act (“CALEA”), which requires covered entities to assist law enforcement in undertaking electronic surveillance;
- requirements to safeguard the privacy of certain customer information;
- payment of annual FCC regulatory fees and taxes based on our interstate and international revenues;
- rules pertaining to access to our services by people with disabilities and contributions to the Telecommunications Relay Services fund; and
- FCC rules regarding the use of customer proprietary network information.

In addition, Congress and the FCC are attempting to mitigate the scourge of robocalls by requiring participation in a technical standard called SHAKEN/STIR, which allows carriers to authenticate caller ID, prohibiting malicious spoofing.

If we do not comply with any current or future rules or regulations that apply to our business, we could be subject to substantial fines and penalties, and we may have to restructure our offerings, exit certain markets or raise the price of our products. In addition, any uncertainty regarding whether particular regulations apply to our business, and how they apply, could increase our costs or limit our ability to grow.

As we continue to expand internationally, we have become subject to telecommunications laws and regulations in the foreign countries where we offer our products. Internationally, we currently offer our products in over 180 countries.

Our international operations are subject to country-specific governmental regulation and related actions that have increased and may continue to increase our costs or impact our products and platform or prevent us from offering or providing our products in certain countries. Moreover, the regulation of communications platform-as-a-service (“CPaaS”) companies like us is continuing to evolve internationally and many existing regulations may not fully contemplate the CPaaS business model or how they fit into the communications regulatory framework. As a result, interpretation and enforcement of regulations often involve significant uncertainties. Regulators could claim that our products or services are subject to licensing and communications regulatory requirements and could increase the level of scrutiny and enforcement they apply. Future legislative, regulatory or judicial actions impacting CPaaS services could also increase the cost and complexity of compliance and expose us to liability. For example, in some countries, we are not considered a regulated telecommunications business subject to regulations surrounding payment into universal service funds and provision of emergency services but in other countries the provision of VoIP services may be a regulated telecommunications business. Certain of our products may be used by customers located in countries where voice and other forms of IP communications may be illegal or require special licensing or in countries on a U.S. embargo list. Even where our products are reportedly illegal or become illegal or where users are located in an embargoed country, users in those countries may be able to continue to use our products in those countries notwithstanding the illegality or embargo. We may be subject to penalties or governmental action if consumers continue to use our products in countries where it is illegal to do so or if we use a local partner to provide services in a country and the local partner does not comply with applicable governmental regulations. Any such penalties or governmental action may be costly and may harm our business and damage our brand and reputation. We may be required to incur additional expenses to meet

applicable international regulatory requirements or be required to raise the prices of services, or restructure or discontinue those services if required by law or if we cannot or will not meet those requirements. Any of the foregoing could adversely affect our business, results of operations and financial condition.

***If we are unable to obtain or retain geographical, regional, local or toll-free numbers, or to effectively process requests to port such numbers in a timely manner due to industry regulations, our business and results of operations may be adversely affected.***

Our future success depends in part on our ability to obtain allocations of geographical, regional, local and toll-free direct inward dialing numbers (“DIDs”), in the United States and foreign countries at a reasonable cost and without overly burdensome restrictions. Our ability to obtain allocations of, assign and retain DIDs depends on factors outside of our control, such as applicable regulations, the practices of authorities that administer national numbering plans or of network service providers from whom we can provision DIDs, such as offering DIDs with conditional minimum volume call level requirements, the cost of these DIDs and the level of overall competitive demand for new DIDs.

In addition, in order to obtain allocations of, assign and retain telephone numbers in the European Union or certain other regions, we are often required to be licensed by local telecommunications regulatory authorities, some of which have been increasingly monitoring and regulating the categories of phone numbers that are eligible for provisioning to our customers. We have obtained licenses, and are in the process of obtaining licenses in various countries in which we do business, but in some countries, the regulatory regime around provisioning of phone numbers is unclear, subject to change over time, and sometimes may conflict from jurisdiction to jurisdiction. Furthermore, these regulations and governments’ approach to their enforcement, as well as our products and services, are still evolving and we may be unable to maintain compliance with applicable regulations, or enforce compliance by our customers, on a timely basis or without significant cost. Also, compliance with these types of regulation may require changes in products or business practices that result in reduced revenue. If we or our customers use phone numbers in these countries in a manner that violates applicable rules and regulations, we may also be subject to significant penalties or governmental action, including government-initiated audits and, in extreme cases, may be precluded from doing business in that particular country. In the event of such non-compliance, we may be forced to reclaim phone numbers from our customers, which could result in loss of customers, breach of contract claims, loss of revenue, reputational harm, and erosion of customer trust, all of which could have a material adverse effect on our business, results of operations and financial condition.

Due to their limited availability, there are certain popular area code prefixes that we generally cannot obtain. Our inability to acquire or retain DIDs for our operations would make our voice and messaging products less attractive to potential customers in the affected local geographic areas. In addition, future growth in our customer base, together with growth in the customer bases of other providers of cloud communications, has increased, which increases our dependence on needing sufficiently large quantities of DIDs. It may become increasingly difficult to source larger quantities of DIDs as we scale and we may need to pay higher costs for DIDs, and DIDs may become subject to more stringent regulation or conditions of usage such as the registration and on-going compliance requirements discussed above.

Additionally, in some geographies, we support number portability, which allows our customers to transfer their existing phone numbers to us and thereby retain their existing phone numbers when subscribing to our voice and messaging products. Transferring existing numbers is a manual process that can take up to 15 business days or longer to complete. Any delay that we experience in transferring these numbers typically results from the fact that we depend on network service providers to transfer these numbers, a process that we do not control, and these network service providers may refuse or substantially delay the transfer of these numbers to us. Number portability is considered an important feature by many potential customers, and if we fail to reduce any related delays, then we may experience increased difficulty in acquiring new customers.

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

***If we fail to adapt and respond effectively to rapidly changing technology, evolving industry standards, changing regulations, and changing customer needs, requirements or preferences, our products may become less competitive.***

The market for communications in general, and cloud communications in particular, is subject to rapid technological change, evolving industry standards, changing regulations, as well as changing customer needs, requirements and preferences. The success of our business will depend, in part, on our ability to adapt and respond effectively to these changes on a timely basis. If we are unable to develop new products that satisfy our customers and provide enhancements and new features for our existing products that keep pace with rapid technological and industry change, including but not limited to SHAKEN/STIR, our business, results of operations and financial condition could be adversely affected. If new technologies emerge that are able to deliver competitive products and services at lower prices, more efficiently, more conveniently or more securely, such technologies could adversely impact our ability to compete effectively.

Our platform must integrate with a variety of network, hardware, mobile and software platforms and technologies, and we need to continuously modify and enhance our products and platform to adapt to changes and innovation in these technologies. For example, Apple, Google and other cell-phone operating system providers or inbox service providers have developed and, may in the future develop, new applications or functions intended to filter spam and unwanted phone calls, messages or emails. Similarly, our network service providers may adopt new filtering technologies in an effort to combat spam or robocalling. Such technologies may inadvertently filter desired messages or calls to or from our customers. If cell-phone operating system providers, network service providers, our customers or their end users adopt new software platforms or infrastructure, we may be required to develop new versions of our products to work with those new platforms or infrastructure. This development effort may require significant resources, which would adversely affect our business, results of operations and financial condition. Any failure of our products and platform to operate effectively with evolving or new platforms and technologies could reduce the demand for our products. If we are unable to respond to these changes in a cost-effective manner, our products may become less marketable and less competitive or obsolete, and our business, results of operations and financial condition could be adversely affected.

***We typically provide monthly uptime service level commitments of up to 99.95% under our agreements with customers. If we fail to meet these contractual commitments, then our business, results of operations and financial condition could be adversely affected.***

Our agreements with customers typically provide for service level commitments. If we suffer extended periods of downtime for our products or platform and we are unable to meet these commitments, then we are contractually obligated to provide a service credit, which is typically 10% of the customer's amounts due for the month in question. In addition, the performance and availability of AWS, which provides our cloud infrastructures is outside of our control and, therefore, we are not in full control of whether we meet our service level commitments. As a result, our business, results of operations and financial condition could be adversely affected if we suffer unscheduled downtime that exceeds the service level commitments we have made to our customers. Any extended service outages could adversely affect our business and reputation and erode customer trust.

***Breaches of our networks or systems, or those of AWS or our service providers, could degrade our ability to conduct our business, compromise the integrity of our products, platform and data, result in significant data losses and the theft of our intellectual property, damage our reputation, expose us to liability to third parties and require us to incur significant additional costs to maintain the security of our networks and data.***

We depend upon our IT systems to conduct virtually all of our business operations, ranging from our internal operations and research and development activities to our marketing and sales efforts and communications with our customers and business partners. Individuals or entities may attempt to penetrate our network security, or that of our platform, and to cause harm to our business operations, including by misappropriating our proprietary information or that of our customers, employees and business partners or to cause interruptions of our products and platform. In particular, cyberattacks and other malicious internet-based activity continue to increase in frequency and in magnitude generally, and cloud-based companies have been targeted in the past. In addition to threats from traditional computer hackers, malicious code (such as malware, viruses, worms, and ransomware), employee theft or misuse, password spraying, phishing, credential stuffing, and denial-of-service attacks, we also face threats from sophisticated organized crime, nation-state, and nation-state supported actors who engage in attacks (including advanced persistent threat intrusions) that add to the risk to our systems (including those hosted on AWS or other cloud services), internal networks, our customers' systems and the information that they store and process. While we devote significant financial and personnel resources to implement and maintain security measures, because the techniques used by such individuals or entities to access, disrupt or sabotage devices, systems and networks change frequently and may not be recognized until launched against a target, we may be required to make further investments over time to protect data and infrastructure as cybersecurity threats develop, evolve and grow more complex over time. We may also be unable to anticipate these techniques, and we may not become aware in a timely manner of such a security breach, which could exacerbate any damage we experience. Additionally, we depend upon our employees and contractors to appropriately handle confidential and sensitive data, including customer data, and to deploy our IT resources in a safe and secure manner that does not expose our network systems to security breaches or the loss of data. Any data security incidents, including internal malfeasance or inadvertent disclosures by our employees or a third party's fraudulent inducement of our employees to disclose information, unauthorized access or usage, virus or similar breach or disruption of us or our service providers, such as AWS, could result in loss of confidential information, damage to our reputation, erosion of customer trust, loss of customers, litigation, regulatory investigations, fines, penalties and other liabilities. Accordingly, if our cybersecurity measures or those of AWS or our service providers, fail to protect against unauthorized access, attacks (which may include sophisticated cyberattacks), compromise or the mishandling of data by our employees and contractors, then our reputation, customer trust, business, results of operations and financial condition could be adversely affected. While we maintain errors, omissions, and cyber liability insurance policies covering certain security and privacy damages, we cannot be certain that our existing insurance coverage will continue to be

available on acceptable terms or will be available in sufficient amounts to cover the potentially significant losses that may result from a security incident or breach or that the insurer will not deny coverage as to any future claim.

***Defects or errors in our products could diminish demand for our products, harm our business and results of operations and subject us to liability.***

Our customers use our products for important aspects of their businesses, and any errors, defects or disruptions to our products and any other performance problems with our products could damage our customers' businesses and, in turn, hurt our brand and reputation and erode customer trust. We provide regular updates to our products, which have in the past contained, and may in the future contain, undetected errors, failures, vulnerabilities and bugs when first introduced or released. Real or perceived errors, failures or bugs in our products could result in negative publicity, loss of or delay in market acceptance of our platform, loss of competitive position, lower customer retention or claims by customers for losses sustained by them. In such an event, we may be required, or may choose, for customer relations or other reasons, to expend additional resources in order to help correct the problem. In addition, we may not carry insurance sufficient to compensate us for any losses that may result from claims arising from defects or disruptions in our products. As a result, our reputation and our brand could be harmed, and our business, results of operations and financial condition may be adversely affected.

***We currently generate significant revenue from our largest customers, and the loss or decline in revenue from any of these customers could harm our business, results of operations and financial condition.***

In the years ended December 31, 2019, 2018 and 2017, our 10 largest Active Customer Accounts, which consisted of both Base and Variable Customers, generated an aggregate of 13%, 18% and 19% of our revenue, respectively. A significant portion of our revenue comes from a Variable Customer, WhatsApp.

In the years ended December 31, 2019, 2018 and 2017, WhatsApp accounted for 5%, 7% and 6% of our revenue, respectively. WhatsApp uses our Programmable Voice products and Programmable Messaging products in its applications to verify new and existing users on its service. Our Variable Customer Accounts, including WhatsApp, do not have long-term contracts with us and may reduce or fully terminate their usage of our products at any time without notice, penalty or termination charges. In addition, the usage of our products by WhatsApp and other Variable Customer Accounts may change significantly between periods.

In the event that any of our large Base or Variable customers do not continue to use our products, use fewer of our products, or use our products in a more limited capacity, or not at all, our business, results of operations and financial condition could be adversely affected.

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

We believe that continued growth of our business depends in part upon identifying, developing and maintaining strategic relationships with consulting partners. As part of our growth strategy, we intend to further develop partnerships and specific solution areas with consulting partners. If we fail to establish these relationships in a timely and cost-effective manner, or at all, then our business, results of operations and financial condition could be adversely affected. Additionally, even if we are successful at developing these relationships but there are problems or issues with the integrations or enterprises are not willing to purchase through consulting partners, our reputation and ability to grow our business may be adversely affected.

***Any failure to offer high quality customer support may adversely affect our relationships with our customers and prospective customers, and adversely affect our business, results of operations and financial condition.***

Many of our customers depend on our customer support team to assist them in deploying our products effectively to help them to resolve post-deployment issues quickly and to provide ongoing support. If we do not devote sufficient resources or are otherwise unsuccessful in assisting our customers effectively, it could adversely affect our ability to retain existing customers and could prevent prospective customers from adopting our products. We may be unable to respond quickly enough to accommodate short-term increases in demand for customer support. We also may be unable to modify the nature, scope and delivery of our customer support to compete with changes in the support services provided by our competitors. Increased demand for customer support, without corresponding revenue, could increase costs and adversely affect our business, results of operations and financial condition. Our sales are highly dependent on our business reputation and on positive recommendations from developers. Any failure to maintain high quality customer support, or a market perception that we do not maintain high quality customer support, could erode customer trust and adversely affect our reputation, business, results of operations and financial condition.

***Failure to set optimal prices for our products could adversely impact our business, results of operations and financial condition.***

We charge our customers based on their use of our products. We expect that we may need to change our pricing from time to time. In the past we have sometimes reduced our prices either for individual customers in connection with long-term agreements or for a particular product. One of the challenges to our pricing is that the fees that we pay to network service providers over whose networks we transmit communications can vary daily or weekly and are affected by volume and other factors that may be outside of our control and difficult to predict. This can result in us incurring increased costs that we may be unable or unwilling to pass through to our customers, which could adversely impact our business, results of operations and financial condition.

Further, as competitors introduce new products or services that compete with ours or reduce their prices, we may be unable to attract new customers or retain existing customers based on our historical pricing. As we expand internationally, we also must determine the appropriate price to enable us to compete effectively internationally. Moreover, enterprises, which are a primary focus for our direct sales efforts, may demand substantial price concessions. In addition, if the mix of products sold changes, including for a shift to IP-based products, then we may need to, or choose to, revise our pricing. As a result, in the future we may be required or choose to reduce our prices or change our pricing model, which could adversely affect our business, results of operations and financial condition.

***We have been sued, and may, in the future, be sued by third parties for alleged infringement of their proprietary rights, which could adversely affect our business, results of operations and financial condition.***

There is considerable patent and other intellectual property development activity in our industry. Our future success depends, in part, on not infringing the intellectual property rights of others and we may be unaware of the intellectual property rights of others that may cover some or all of our technology. Our competitors or other third parties have claimed and may, in the future, claim that our products or platform and underlying technology are infringing upon their intellectual property rights, and we may be found to be infringing upon such rights. For example, Telesign Corporation (“Telesign”) sued Twilio in 2015 and 2016 alleging that we are infringing four U.S. patents that it holds: U.S. Patent No. 7,945,034 (“034”), U.S. Patent No. 8,462,920 (“920”), U.S. Patent No. 8,687,038 (“038”), and U.S. Patent No. 9,300,792 (“792”). The patent infringement allegations in the lawsuit relate to the Company’s two-factor authentication use case, *Authy*, and an API tool to find information about a phone number. On October 19, 2018, a United States District Court in the Northern District of California entered judgment in our favor on all asserted claims. Telesign appealed, and the Court of Appeals for the Federal Circuit affirmed the judgment in the Company’s favor on January 9, 2020. Telesign has not indicated whether it will further appeal. See the section titled “Item 1. Legal Proceedings.” We intend to vigorously defend ourselves against such lawsuits and believe we have meritorious defenses to matters in which we are a defendant. During the course of these lawsuits, there may be announcements of the results of hearings and motions and other interim developments related to the litigation. If securities analysts or investors regard these announcements as negative, the trading price of our Class A common stock may decline.

In the future, we may also introduce or acquire new products or technologies, including in areas where we historically have not participated in, which could increase our exposure to intellectual property claims. Any claims or litigation could cause us to incur significant expenses and, if successfully asserted against us, could require that we pay substantial damages or ongoing royalty payments, prevent us from offering our products, or require that we comply with other unfavorable terms. We may also be obligated to indemnify our customers or business partners in connection with any such litigation and to obtain licenses or modify our products or platform, which could further exhaust our resources. Litigation is inherently uncertain and even if we were to prevail in the event of claims or litigation against us, any claim or litigation regarding intellectual property could be costly and time-consuming and divert the attention of our management and other employees from our business. Patent infringement, trademark infringement, trade secret misappropriation and other intellectual property claims and proceedings brought against us, whether successful or not, could harm our brand, business, results of operations and financial condition.

***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 typically include indemnification or other provisions under which we agree to indemnify or otherwise be liable to them for losses suffered or incurred as a result of claims of intellectual property infringement, loss or exposure of confidential or sensitive data, damages caused by us to property or persons or other liabilities relating to or arising from our products or platform or other acts or omissions. The term of these contractual provisions often survives termination or expiration of the applicable agreement. Large indemnity payments or damage claims from contractual

breach could harm our business, results of operations and financial condition. Although typically we contractually limit our liability with respect to such obligations, we may still incur substantial liability related to them. Any dispute with a customer with respect to such obligations could have adverse effects on our relationship with that customer and other current and prospective customers, demand for our products and adversely affect our business, results of operations and financial condition.

***We could incur substantial costs in protecting or defending our intellectual property rights, and any failure to protect our intellectual property could adversely affect our business, results of operations and financial condition.***

Our success depends, in part, on our ability to protect our brand and the proprietary methods and technologies that we develop under patent and other intellectual property laws in the U.S. and in non-U.S. jurisdictions so that we can prevent others from using our inventions and proprietary information. As of December 31, 2019, in the United States, we had been issued 131 patents, which expire between 2029 and 2037. As of such date, we also had 27 issued patents in non-U.S. jurisdictions, all of which are related to U.S. patents and patent applications. We have also filed various applications for protection of certain aspects of our intellectual property in the United States and internationally. There can be no assurance that additional patents will be issued or that any patents that have been issued or that may be issued in the future will provide significant protection for our intellectual property. As of December 31, 2019, we had 32 registered trademarks in the United States and 163 registered trademarks in non-U.S. jurisdictions. If we fail to protect our intellectual property rights adequately, our competitors might gain access to our technology and our business, results of operations and financial condition may be adversely affected.

There can be no assurance that the particular forms of intellectual property protection that we seek, including business decisions about when to file patent applications and trademark applications, will be adequate to protect our business. We could be required to spend significant resources to monitor and protect our intellectual property rights. Litigation may be necessary in the future to enforce our intellectual property rights, determine the validity and scope of our proprietary rights or those of others, or defend against claims of infringement or invalidity. Such litigation could be costly, time-consuming and distracting to management, result in a diversion of significant resources, the narrowing or invalidation of portions of our intellectual property and have an adverse effect on our business, results of operations and financial condition. 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 or alleging that we infringe the counterclaimant's own intellectual property. Any of our patents, copyrights, trademarks or other intellectual property rights could be challenged by others or invalidated through administrative process or litigation.

We also rely, in part, on confidentiality agreements with our business partners, employees, consultants, advisors, customers and others in our efforts to protect our proprietary technology, processes and methods. These agreements may not effectively prevent disclosure of our confidential information, and it may be possible for unauthorized parties to copy our software or other proprietary technology or information, or to develop similar software independently without our having an adequate remedy for unauthorized use or disclosure of our confidential information. In addition, others may independently discover our trade secrets and proprietary information, and in these cases, we would not be able to assert any trade secret rights against those parties. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

In addition, the laws of some countries do not protect intellectual property and other proprietary rights to the same extent as the laws of the United States. To the extent we expand our international activities, our exposure to unauthorized copying, transfer and use of our proprietary technology or information may increase.

We cannot be certain that our means of protecting our intellectual property and proprietary rights will be adequate or that our competitors will not independently develop similar technology. If we fail to meaningfully protect our intellectual property and proprietary rights, our business, results of operations and financial condition could be adversely affected.

***We may acquire or invest in companies, which may divert our management's attention and result in debt or dilution to our stockholders. We may be unable to integrate acquired businesses and technologies successfully or achieve the expected benefits of such acquisitions.***

We may evaluate and consider potential strategic transactions, including acquisitions of, or investments in, businesses, technologies, services, products and other assets in the future. We also may enter into relationships with other businesses to expand our products and platform, which could involve preferred or exclusive licenses, additional channels of distribution, discount pricing or investments in other companies.



Any acquisition, investment or business relationship may result in unforeseen operating difficulties and expenditures. In particular, we may encounter difficulties or delays in assimilating or integrating the businesses, technologies, products, personnel or operations of the acquired companies, particularly if the key personnel of the acquired company choose not to work for us, their products or services are not easily adapted to work with our platform, or we have difficulty retaining the customers of any acquired business due to changes in ownership, management or otherwise. In addition, we may discover liabilities or deficiencies associated with the assets or companies we acquire or ineffective or inadequate controls, procedures or policies at an acquired business that were not identified in advance, any of which could result in significant unanticipated costs. Acquisitions also may disrupt our business, divert our resources or require significant management attention that would otherwise be available for development of our existing business. Moreover, the anticipated benefits of any acquisition, investment or business relationship may not be realized or we may be exposed to unknown risks or liabilities.

Negotiating these transactions can be time consuming, difficult and expensive, and our ability to complete these transactions may often be subject to approvals that are beyond our control. Consequently, these transactions, even if announced, may not be completed. For one or more of those transactions, we may:

- issue additional equity securities that would dilute our existing stockholders;
- use cash that we may need in the future to operate our business;
- incur large charges or substantial liabilities;
- incur debt on terms unfavorable to us or that we are unable to repay;
- encounter difficulties retaining key employees of the acquired company or integrating diverse software codes or business cultures;
- encounter difficulties retaining the acquired company's customers; or
- become subject to adverse tax consequences, substantial depreciation, or deferred compensation charges.

The occurrence of any of these foregoing could adversely affect our business, results of operations and financial condition.

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

Our future performance depends on the continued services and contributions of our senior management and other key employees to execute on our business plan, to develop our products and platform, to deliver our products to customers, to attract and retain customers and to identify and pursue opportunities. The loss of services of senior management or other key employees could significantly delay or prevent the achievement of our development and strategic objectives. In particular, we depend to a considerable degree on the vision, skills, experience and effort of our co-founder and Chief Executive Officer, Jeff Lawson. None of our executive officers or other senior management personnel is bound by a written employment agreement and any of them may terminate employment with us at any time with no advance notice. The replacement of any of our senior management personnel would likely involve significant time and costs, and such loss could significantly delay or prevent the achievement of our business objectives. The loss of the services of any of our senior management or other key employees for any reason could adversely affect our business, results of operations and financial condition.

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

Our future success depends, in part, on our ability to continue to attract and retain highly skilled personnel. We believe that there is, and will continue to be, intense competition for highly skilled management, technical, sales and other personnel with experience in our industry in the San Francisco Bay Area, where our headquarters are located, and in other locations where we maintain offices. We must provide competitive compensation packages and a high quality work environment to hire, retain and motivate employees. If we are unable to retain and motivate our existing employees and attract qualified personnel to fill key positions, we may be unable to manage our business effectively, including the development, marketing and sale of our products, which could adversely affect our business, results of operations and financial condition. To the extent we hire personnel from competitors, we also may be subject to allegations that they have been improperly solicited or divulged proprietary or other confidential information.

Volatility in, or lack of performance of, our stock price may also affect our ability to attract and retain key personnel. Many of our key personnel are, or will soon be, vested in a substantial number of shares of Class A common stock or stock options. Employees may be more likely to terminate their employment with us if the shares they own or the shares underlying their vested options have significantly appreciated in value relative to the original purchase prices of the shares or the exercise prices of the options, or, conversely, if the exercise prices of the options that they hold are significantly above the trading price of our Class A common stock. If we are unable to retain our employees, our business, results of operations and financial condition could be adversely affected.

***United States federal legislation and international laws impose certain obligations on the senders of commercial emails, which could minimize the effectiveness of our platform, and establish financial penalties for non-compliance, which could increase the costs of our business.***

The Federal Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003, or the CAN-SPAM Act, establishes certain requirements for commercial email messages and transactional email messages and specifies penalties for the transmission of email messages that are intended to deceive the recipient as to source or content. Among other things, the CAN-SPAM Act, obligates the sender of commercial emails to provide recipients with the ability to "opt-out" of receiving future commercial emails from the sender. In addition, some states have passed laws regulating commercial email practices that are significantly more restrictive and difficult to comply with than the CAN-SPAM Act. For example, Utah and Michigan prohibit the sending of email messages that advertise products or services that minors are prohibited by law from purchasing (e.g., alcoholic beverages, tobacco products, illegal drugs) or that contain content harmful to minors (e.g., pornography) to email addresses listed on specified child protection registries. Some portions of these state laws may not be preempted by the CAN-SPAM Act. In addition, certain non-U.S. jurisdictions, such as Australia, Canada, and the European Union, have enacted laws that regulate sending email, and some of these laws are more restrictive than U.S. laws. For example, some foreign laws prohibit sending broad categories of email unless the recipient has provided the sender advance consent to receipt of such email, or in other words has "opted-in" to receiving such email. If we were found to be in violation of the CAN-SPAM Act, applicable state laws governing email not preempted by the CAN-SPAM Act or foreign laws regulating the distribution of email, whether as a result of violations by our customers or our own acts or omissions, we could be required to pay large penalties, which would adversely affect our financial condition, significantly harm our business, injure our reputation and erode customer trust. The terms of any injunctions, judgments, consent decrees or settlement agreements entered into in connection with enforcement actions or investigations against our company in connection with any of the foregoing laws may also require us to change one or more aspects of the way we operate our business, which could impair our ability to attract and retain customers or could increase our operating costs.

***Our customers' and other users' violation of our policies or other misuse of our platform to transmit unauthorized, offensive or illegal messages, spam, phishing scams, and website links to harmful applications or for other fraudulent or illegal activity could damage our reputation, and we may face a risk of litigation and liability for illegal activities on our platform and unauthorized, inaccurate, or fraudulent information distributed via our platform.***

The actual or perceived improper sending of text messages or voice calls may subject us to potential risks, including liabilities or claims relating to consumer protection laws and regulatory enforcement, including fines. For example, the Telephone Consumer Protection Act of 1991 restricts telemarketing and the use of automatic SMS text messages without explicit customer consent. This has resulted in civil claims against our company and requests for information through third-party subpoenas. The scope and interpretation of the laws that are or may be applicable to the delivery of text messages or voice calls are continuously evolving and developing. If we do not comply with these laws or regulations or if we become liable under these laws or regulations due to the failure of our customers to comply with these laws by obtaining proper consent, we could face direct liability.

Moreover, despite our ongoing and substantial efforts to limit such use, certain customers may use our platform to transmit unauthorized, offensive or illegal messages, calls, spam, phishing scams, and website links to harmful applications, reproduce and distribute copyrighted material or the trademarks of others without permission, and report inaccurate or fraudulent data or information. These issues also arise with respect to a portion of those users who use our platform on a free trial basis or upon initial use. These actions are in violation of our policies, in particular, our Acceptable Use Policy. However, our efforts to defeat spamming attacks, illegal robocalls and other fraudulent activity will not prevent all such attacks and activity. Such use of our platform could damage our reputation and we could face claims for damages, regulatory enforcement, copyright or trademark infringement, defamation, negligence, or fraud. Moreover, our customers' and other users' promotion of their products and services through our platform might not comply with federal, state, and foreign laws. We rely on contractual representations made to us by our customers that their use of our platform will comply with our policies and applicable law, including, without limitation, our email and messaging policies. Although we retain the right to verify that customers and other users are abiding by certain contractual terms, our Acceptable Use Policy and our email and messaging policies and, in certain circumstances, to review their email and distribution lists, our customers and other users are ultimately responsible for

compliance with our policies, and we do not systematically audit our customers or other users to confirm compliance with our policies. We cannot predict whether our role in facilitating our customers' or other users' activities would expose us to liability under applicable law. Even if claims asserted against us do not result in liability, we may incur substantial costs in investigating and defending such claims. If we are found liable for our customers' or other users' activities, we could be required to pay fines or penalties, redesign business methods or otherwise expend resources to remedy any damages caused by such actions and to avoid future liability.

***Our use of open source software could negatively affect our ability to sell our products and subject us to possible litigation.***

Our products and platform incorporate open source software, and we expect to continue to incorporate open source software in our products and platform in the future. Few of the licenses applicable to open source software have been interpreted by courts, and there is a risk that these licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products and platform. Moreover, although we have implemented policies to regulate the use and incorporation of open source software into our products and platform, we cannot be certain that we have not incorporated open source software in our products or platform in a manner that is inconsistent with such policies. If we fail to comply with open source licenses, we may be subject to certain requirements, including requirements that we offer our products that incorporate the open source software for no cost, that we make available source code for modifications or derivative works we create based upon, incorporating or using the open source software and that we license such modifications or derivative works under the terms of applicable open source licenses. If an author or other third party that distributes such open source software were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations and could be subject to significant damages, enjoined from generating revenue from customers using products that contained the open source software and required to comply with onerous conditions or restrictions on these products. In any of these events, we and our customers could be required to seek licenses from third parties in order to continue offering our products and platform and to re-engineer our products or platform or discontinue offering our products to customers in the event re-engineering cannot be accomplished on a timely basis. Any of the foregoing could require us to devote additional research and development resources to re-engineer our products or platform, could result in customer dissatisfaction and may adversely affect our business, results of operations and financial condition.

***Changes in laws and regulations related to the Internet or changes in the Internet infrastructure itself may diminish the demand for our products, and could adversely affect our business, results of operations and financial condition.***

The future success of our business depends upon the continued use of the Internet as a primary medium for commerce, communications and business applications. Federal, state or foreign government bodies or agencies have in the past adopted, and may in the future adopt, laws or regulations affecting the use of the Internet as a commercial medium. Changes in these laws or regulations could require us to modify our products and platform in order to comply with these changes. In addition, government agencies or private organizations have imposed and may impose additional taxes, fees or other charges for accessing the Internet or commerce conducted via the Internet. These laws or charges could limit the growth of Internet-related commerce or communications generally or result in reductions in the demand for Internet-based products and services such as our products and platform. In addition, the use of the Internet as a business tool could be adversely affected due to delays in the development or adoption of new standards and protocols to handle increased demands of Internet activity, security, reliability, cost, ease-of-use, accessibility and quality of service. The performance of the Internet and its acceptance as a business tool has been adversely affected by "viruses", "worms", and similar malicious programs. If the use of the Internet is reduced as a result of these or other issues, then demand for our products could decline, which could adversely affect our business, results of operations and financial condition.

***The standards that private entities and inbox service providers use to regulate the use and delivery of email have in the past interfered with, and may in the future interfere with, the effectiveness of our platform and our ability to conduct business.***

Some of our customers rely on email to communicate with their existing or prospective customers. Various private entities attempt to regulate the use of email for commercial solicitation. These entities often advocate standards of conduct or practice that significantly exceed current legal requirements and classify certain email solicitations that comply with current legal requirements as spam. Some of these entities maintain "blacklists" of companies and individuals, and the websites, inbox service providers and IP addresses associated with those entities or individuals that do not adhere to those standards of conduct or practices for commercial email solicitations that the blacklisting entity believes are appropriate. If a company's IP addresses are listed by a blacklisting entity, emails sent from those addresses may be blocked if they are sent to any internet domain or internet address that subscribes to the blacklisting entity's service or uses its blacklist.

From time to time, some of our IP addresses have become, and we expect will continue to be, listed with one or more blacklisting entities due to the messaging practices of our customers and other users. We may be at an increased risk of having our IP addresses blacklisted due to our scale and volume of email processed, compared to our smaller competitors. While the overall percentage of such email solicitations that our individual customers send may be at or below reasonable standards, the total aggregate number of all emails that we process on behalf of our customers may trigger increased scrutiny from these blacklisting entities. There can be no guarantee that we will be able to successfully remove ourselves from those lists. Because we fulfill email delivery on behalf of our customers, blacklisting of this type could undermine the effectiveness of our customers' transactional email, email marketing programs and other email communications, all of which could have a material negative impact on our business, financial condition and results of operations.

Additionally, inbox service providers can block emails from reaching their users. While we continually improve our own technology and work closely with inbox service providers to maintain our deliverability rates, the implementation of new or more restrictive policies by inbox service providers may make it more difficult to deliver our customers' emails, particularly if we are not given adequate notice of a change in policy or struggle to update our platform or services to comply with the changed policy in a reasonable amount of time. In addition, some inbox service providers categorize as "promotional" emails that originate from email service providers and, as a result, direct them to an alternate or "tabbed" section of the recipient's inbox. If inbox service providers materially limit or halt the delivery of our customers' emails, or if we fail to deliver our customers' emails in a manner compatible with inbox service providers' email handling or authentication technologies or other policies, or if the open rates of our customers' emails are negatively impacted by the actions of inbox service providers to categorize emails, then customers may question the effectiveness of our platform and cancel their accounts. This, in turn, could harm our business, financial condition and results of operations.

***We may be subject to governmental export controls and economic sanctions regulations that could impair our ability to compete in international markets due to licensing requirements and could subject us to liability if we are not in compliance with applicable laws.***

Certain of our products and services may be subject to export control and economic sanctions regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations and various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls. Exports of our products and the provision of our services must be made in compliance with these laws and regulations. Although we take precautions to prevent our products from being provided in violation of such laws, we are aware of previous exports of certain of our products to a small number of persons and organizations that are the subject of U.S. sanctions or located in countries or regions subject to U.S. sanctions. If we fail to comply with these laws and regulations, we and certain of our employees could be subject to substantial civil or criminal penalties, including: the possible loss of export privileges; fines, which may be imposed on us and responsible employees or managers; and, in extreme cases, the incarceration of responsible employees or managers. Obtaining the necessary authorizations, including any required license, for a particular deployment may be time-consuming, is not guaranteed and may result in the delay or loss of sales opportunities. In addition, changes in our products or services, or changes in applicable export or economic sanctions regulations may create delays in the introduction and deployment of our products and services in international markets, or, in some cases, prevent the export of our products or provision of our services to certain countries or end users. Any change in export or economic sanctions regulations, shift in the enforcement or scope of existing regulations, or change in the countries, governments, persons or technologies targeted by such regulations, could also result in decreased use of our products and services, or in our decreased ability to export our products or provide our services to existing or prospective customers with international operations. Any decreased use of our products and services or limitation on our ability to export our products and provide our services could adversely affect our business, results of operations and financial condition.

Further, we incorporate encryption technology into certain of our products. Various countries regulate the import of certain encryption technology, including through import permitting and licensing requirements, and have enacted laws that could limit our customers' ability to import our products into those countries. Encryption products and the underlying technology may also be subject to export control restrictions. Governmental regulation of encryption technology and regulation of exports of encryption products, or our failure to obtain required approval for our products, when applicable, could harm our international sales and adversely affect our revenue. Compliance with applicable regulatory requirements regarding the export of our products and provision of our services, including with respect to new releases of our products and services, may create delays in the introduction of our products and services in international markets, prevent our customers with international operations from deploying our products and using our services throughout their globally-distributed systems or, in some cases, prevent the export of our products or provision of our services to some countries altogether.

***Our reliance on SaaS technologies from third parties may adversely affect our business, results of operations and financial condition.***

We rely on hosted SaaS technologies from third parties in order to operate critical internal functions of our business, including enterprise resource planning, customer support and customer relations management services. 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. As a result, our ability to manage our operations could be interrupted and our processes for managing our sales process and supporting our customers could be impaired until equivalent services, if available, are identified, obtained and implemented, all of which could adversely affect our business, results of operations and financial condition.

***We may have additional tax liabilities, which could harm our business, results of operations and financial condition.***

Significant judgments and estimates are required in determining our provision for income taxes and other tax liabilities. Our tax expense may be impacted, for example, if tax laws change or are clarified to our detriment or if tax authorities successfully challenge the tax positions that we take, such as, for example, positions relating to the arms-length pricing standards for our intercompany transactions and our state sales and use tax positions. In determining the adequacy of income taxes, we assess the likelihood of adverse outcomes that could result if our tax positions were challenged by the Internal Revenue Service (“IRS”), and other tax authorities. Should the IRS or other tax authorities assess additional taxes as a result of examinations, we may be required to record charges to operations that could adversely affect our results of operations and financial condition. We are currently in discussions with certain states regarding prior state sales taxes that we may owe. We have reserved \$27.0 million on our December 31, 2019 balance sheet for these tax payments. The actual exposure could differ materially from our current estimates, and if the actual payments we make to these and other states exceed the accrual in our balance sheet, our results of operations would be harmed.

***We could be subject to liability for historical and future sales, use and similar taxes, which could adversely affect our results of operations.***

We conduct operations in many tax jurisdictions throughout the United States. In many of these jurisdictions, non-income-based taxes, such as sales and use and telecommunications taxes, are assessed on our operations. We are subject to indirect taxes, and may be subject to certain other taxes, in some of these jurisdictions. Historically, we have not billed or collected these taxes and, in accordance with generally accepted accounting principles in the United States (“U.S. GAAP”), we have recorded a provision for our tax exposure in these jurisdictions when it is both probable that a liability has been incurred and the amount of the exposure can be reasonably estimated. These estimates include several key assumptions, including, but not limited to, the taxability of our products, the jurisdictions in which we believe we have nexus, and the sourcing of revenues to those jurisdictions. In the event these jurisdictions challenge our assumptions and analysis, our actual exposure could differ materially from our current estimates.

We may be subject to scrutiny from state tax authorities in various jurisdictions and may have additional exposure related to our historical operations. Furthermore, certain jurisdictions in which we do not collect such taxes may assert that such taxes are applicable, which could result in tax assessments, penalties and interest, and we may be required to collect such taxes in the future. Such tax assessments, penalties and interest or future requirements may adversely affect our business, results of operations and financial condition.

Effective March 2017, we began collecting telecommunications-based taxes from our customers in certain jurisdictions. Since then, we have added more jurisdictions where we collect these taxes and we expect to continue expanding the number of jurisdictions in which we will collect these taxes in the future. Some customers may question the incremental tax charges and some may seek to negotiate lower pricing from us, which could adversely affect our business, results of operations and financial condition.

***Our global operations and structure subject us to potentially adverse tax consequences.***

We generally conduct our global operations through subsidiaries and report our taxable income in various jurisdictions worldwide based upon our business operations in those jurisdictions. In particular, our intercompany relationships are subject to complex transfer pricing regulations administered by taxing authorities in various jurisdictions. Also, our tax expense could be affected depending on the applicability of withholding and other taxes (including withholding and indirect taxes on software licenses and related intercompany transactions) under the tax laws of certain jurisdictions in which we have business operations. The relevant revenue and taxing authorities may disagree with positions we have taken generally, or our determinations as to the value of assets sold or acquired or income and expenses attributable to specific jurisdictions. If such a disagreement were to occur, and our position were not sustained, we could be required to pay additional taxes, interest and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows and lower overall profitability of our operations.

Certain government agencies in jurisdictions where we and our affiliates do business have had an extended focus on issues related to the taxation of multinational companies. In addition, the Organization for Economic Co-operation and Development is conducting a project focused on base erosion and profit shifting in international structures, which seeks to establish certain international standards for taxing the worldwide income of multinational companies. As a result of these developments, the tax laws of certain countries in which we and our affiliates do business could change on a prospective or retroactive basis, and any such changes could increase our liabilities for taxes, interest and penalties, and therefore could harm our business, cash flows, results of operations and financial position.

***Changes in the U.S. taxation of international business activities or the adoption of other tax reform policies could materially impact our business, results of operations and financial condition.***

Changes to U.S. tax laws that may be enacted in the future could impact the tax treatment of our foreign earnings. Due to the expansion of our international business activities, any changes in the U.S. taxation of such activities may increase our worldwide effective tax rate and adversely affect our business, results of operations and financial condition.

***If we experience excessive credit card or fraudulent activity, we could incur substantial costs.***

Most of our customers authorize us to bill their credit card accounts directly for service fees that we charge. If people pay for our services with stolen credit cards, we could incur substantial third-party vendor costs for which we may not be reimbursed. Further, our customers provide us with credit card billing information online, and we do not review the physical credit cards used in these transactions, which increases our risk of exposure to fraudulent activity. We also incur charges, which we refer to as chargebacks, from the credit card companies from claims that the customer did not authorize the credit card transaction to purchase our services. If the number of unauthorized credit card transactions becomes excessive, we could be assessed substantial fines for excess chargebacks, and we could lose the right to accept credit cards for payment.

Our products may also be subject to fraudulent usage, including but not limited to revenue share fraud, domestic traffic pumping, subscription fraud, premium text message scams and other fraudulent schemes. Although our customers are required to set passwords or personal identification numbers to protect their accounts, third parties have in the past been, and may in the future be, able to access and use their accounts through fraudulent means. Furthermore, spammers attempt to use our products to send targeted and untargeted spam messages. We cannot be certain that our efforts to defeat spamming attacks will be successful in eliminating all spam messages from being sent using our platform. In addition, a cybersecurity breach of our customers' systems could result in exposure of their authentication credentials, unauthorized access to their accounts or fraudulent calls on their accounts, any of which could adversely affect our business, results of operations and financial condition.

***Unfavorable conditions in our industry or the global economy or reductions in spending on information technology and communications could adversely affect our business, results of operations and financial condition.***

Our results of operations may vary based on the impact of changes in our industry or the global economy on our customers. Our results of operations depend in part on demand for information technology and cloud communications. In addition, our revenue is dependent on the usage of our products, which in turn is influenced by the scale of business that our customers are conducting. To the extent that weak economic conditions result in a reduced volume of business for, and communications by, our customers and prospective customers, demand for, and use of, our products may decline. Furthermore, weak economic conditions may make it more difficult to collect on outstanding accounts receivable. Additionally, historically, we have generated the substantial majority of our revenue from small and medium-sized businesses, and we expect this to continue for the foreseeable future. Small and medium-sized business may be affected by economic downturns to a greater extent than enterprises, and typically have more limited financial resources, including capital borrowing capacity, than enterprises. If our customers reduce their use of our products, or prospective customers delay adoption or elect not to adopt our products, as a result of a weak economy, this could adversely affect our business, results of operations and financial condition.

***We may require additional capital to support our business, and this capital might not be available on acceptable terms, if at all.***

We intend to continue to make investments to support our business and may require additional funds. In particular, we may seek additional funds to develop new products and enhance our platform and existing products, expand our operations, including our sales and marketing organizations and our presence outside of the United States, improve our infrastructure or acquire complementary businesses, technologies, services, products and other assets. In addition, we may use a portion of our cash to satisfy tax withholding and remittance obligations related to outstanding restricted stock units. Accordingly, we may need to engage in equity or debt financings to secure additional funds. If we raise additional funds through future issuances of

equity or convertible debt securities, our stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our Class A and Class B common stock. Any debt financing that we may secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth, scale our infrastructure, develop product enhancements and to respond to business challenges could be significantly impaired, and our business, results of operations and financial condition may be adversely affected.

***We face exposure to foreign currency exchange rate fluctuations, and such fluctuations could adversely affect our business, results of operations and financial condition.***

As our international operations expand, our exposure to the effects of fluctuations in currency exchange rates grows. For example, global political events, including Brexit, trade tariff developments and other geopolitical events have caused global economic uncertainty and variability in foreign currency exchange rates. While we have primarily transacted with customers and business partners in U.S. dollars, we have transacted with customers in Japan in Japanese Yen, in Australia in AUD and in Europe in GBP, Euros and Swedish Kronas. We expect to significantly expand the number of transactions with customers that are denominated in foreign currencies in the future as we continue to expand our business internationally. We also incur expenses for some of our network service provider costs outside of the United States in local currencies and for employee compensation and other operating expenses at our non-U.S. locations in the local currency for such locations. Fluctuations in the exchange rates between the U.S. dollar and other currencies could result in an increase to the U.S. dollar equivalent of such expenses.

In addition, our international subsidiaries maintain net assets that are denominated in currencies other than the functional operating currencies of these entities. As we continue to expand our international operations, we become more exposed to the effects of fluctuations in currency exchange rates. Accordingly, changes in the value of foreign currencies relative to the U.S. dollar can affect our results of operations due to transactional and translational remeasurements. As a result of such foreign currency exchange rate fluctuations, it could be more difficult to detect underlying trends in our business and results of operations. In addition, to the extent that fluctuations in currency exchange rates cause our results of operations to differ from our expectations or the expectations of our investors and securities analysts who follow our stock, the trading price of our Class A common stock could be adversely affected.

We do not currently maintain a program to hedge transactional exposures in foreign currencies. 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.

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

As of December 31, 2019, we had federal, state and foreign net operating loss carryforwards (“NOLs”), of \$1,159.3 million, \$630.2 million and \$13.8 million, respectively, due to prior period losses. In the year ended December 31, 2019, as a result of our SendGrid acquisition, we assumed a \$56.2 million deferred tax liability, as described in Notes 6 and 16 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K. In general, under Section 382 of the Internal Revenue Code of 1986, as amended (the “Code”), a corporation that undergoes an “ownership change” (generally defined as a greater than 50-percentage-point cumulative change (by value) in the equity ownership of certain stockholders over a rolling three-year period) is subject to limitations on its ability to utilize its pre-change NOLs to offset post-change taxable income. Our existing NOLs may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in the future, our ability to utilize NOLs could be further limited by Section 382 of the Code. Future changes in our stock ownership, some of which may be outside of our control, could result in an ownership change under Section 382 of the Code.

On December 22, 2017, the U.S. government enacted new tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “Tax Act”). The Tax Act makes broad and complex changes to the U.S. tax code including changes to the uses and limitations of net operating losses. For example, while the Tax Act allows for federal net operating losses incurred in tax years beginning after December 31, 2017 to be carried forward indefinitely, the Tax Act also imposes an 80% limitation on the use of net operating losses that are generated in tax years beginning after December 31, 2017. However, net operating losses generated prior to December 31, 2017 will still have a 20-year carryforward period, but are not subject to the 80% limitation.

Furthermore, our ability to utilize our net operating losses is conditioned upon our maintaining profitability in the future and generating U.S. federal taxable income. Since we do not know whether or when we will generate the U.S. federal taxable income necessary to utilize our remaining net operating losses, these net operating loss carryforwards generated prior to December 31, 2017 could expire unused.

***If our estimates or judgments relating to our critical accounting policies prove to be incorrect, our results of operations could be adversely affected.***

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as provided in Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” The results of these estimates form the basis for making judgments about the carrying values of assets, liabilities and equity, and the amount of revenue and expenses that are not readily apparent from other sources. Assumptions and estimates used in preparing our consolidated financial statements include those related to revenue recognition and business combinations. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below the expectations of securities analysts and investors, resulting in a decline in the trading price of our Class A common stock.

***Changes in financial accounting standards or practices may cause adverse, unexpected financial reporting fluctuations and affect our results of operations.***

A change in accounting standards or practices may have a significant effect on our results of operations and may even affect our reporting of transactions completed before the change is effective. New accounting pronouncements and varying interpretations of accounting pronouncements have occurred and may occur in the future. Changes to existing rules or the questioning of current practices may adversely affect our reported financial results or the way we conduct our business.

For example, a new accounting guidance, Accounting Standards Codification (“ASC”) 842, “Leases”, became effective January 1, 2019. The adoption of this new guidance had a significant impact on our balance sheet as described in detail in Notes 2 and 5 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K. Adoption of these types of accounting standards and any difficulties in implementation of changes in accounting principles, including the ability to modify our accounting systems, could cause us to fail to meet our financial reporting obligations, which result in regulatory discipline and harm investors’ confidence in us.

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

As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in such internal control. Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, requires that we evaluate and determine the effectiveness of our internal control over financial reporting and provide a management report on internal control over financial reporting. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented or detected on a timely basis.

We reported in our Annual Report on Form 10-K as of December 31, 2017, a material weakness related to the tracking of qualifying internal use software development costs eligible for capitalization. During 2018, we completed the remediation measures related to our previously reported material weakness and concluded that our internal control over financial reporting was effective as of December 31, 2018. 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 current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. Further, weaknesses in our disclosure controls and internal control over financial reporting may be discovered in the future. Any failure to develop or maintain effective controls or any difficulties encountered in their implementation or improvement could harm our results of operations or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal control over financial reporting also could adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we are required to include in our periodic reports that will be filed with the SEC. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial



and other information, and could have a material and adverse effect on our business, results of operations and financial condition and could cause a decline in the trading price of our Class A common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the New York Stock Exchange.

***If our goodwill or intangible assets become impaired, we may be required to record a significant charge to earnings.***

We review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. As of December 31, 2019, we carried a net \$2,757.6 million of goodwill and intangible assets. An adverse change in market conditions, particularly if such change has the effect of changing one of our critical assumptions or estimates, could result in a change to the estimation of fair value that could result in an impairment charge to our goodwill or intangible assets. Any such charges may adversely affect our results of operations.

***Our business is subject to the risks of pandemics, earthquakes, fire, floods and other natural catastrophic events, and to interruption by man-made problems such as power disruptions, computer viruses, data security breaches or terrorism.***

Our corporate headquarters are located in the San Francisco Bay Area, a region known for seismic activity. A significant natural disaster, such as an earthquake, fire or flood, occurring at our headquarters, at one of our other facilities or where a business partner is located could adversely affect our business, results of operations and financial condition. Further, if a natural disaster or man-made problem were to affect our service providers, this could adversely affect the ability of our customers to use our products and platform. In addition, natural disasters, pandemics and acts of terrorism could cause disruptions in our or our customers' businesses, national economies or the world economy as a whole. For example, the rapid spread of coronavirus (Covid-19) globally has resulted in increased travel restrictions and disruption and shutdown of businesses. Health concerns or political or governmental developments in countries in which we or our customers, partners and service providers operate could result in economic, social or labor instability and could have a material adverse effect on our business and our results of operations and financial condition. The extent to which the coronavirus impacts our results will depend on future developments, which are highly uncertain and will include emerging information concerning the severity of the coronavirus and the actions taken by governments and private businesses to attempt to contain the coronavirus. Any prolonged contractions in the travel and hospitality industries, along with any effects on supply chain or on other industries in which our customers operate, could materially and adversely impact our business, results of operations and financial condition.

We also rely on our network and third-party infrastructure and enterprise applications and internal technology systems for our engineering, sales and marketing, and operations activities. Although we maintain incident management and disaster response plans, in the event of a major disruption caused by a natural disaster or man-made problem, we may be unable to continue our operations and may endure system interruptions, reputational harm, delays in our development activities, lengthy interruptions in service, breaches of data security and loss of critical data, any of which could adversely affect our business, results of operations and financial condition.

In addition, computer malware, viruses and computer hacking, fraudulent use attempts and phishing attacks have become more prevalent in our industry, have occurred on our platform in the past and may occur on our platform in the future. Though it is difficult to determine what, if any, harm may directly result from any specific interruption or attack, any failure to maintain performance, reliability, security, integrity and availability of our products and technical infrastructure to the satisfaction of our users may harm our reputation and our ability to retain existing users and attract new users.

**Risks Related to Ownership of Our Class A Common Stock**

***The trading price of our Class A common stock has been volatile and may continue to be volatile, and you could lose all or part of your investment.***

Prior to our initial public offering in June 2016, there was no public market for shares of our Class A common stock. On June 23, 2016, we sold shares of our Class A common stock to the public at \$15.00 per share. From June 23, 2016, the date that our Class A common stock started trading on the New York Stock Exchange, through December 31, 2019, the trading price of our Class A common stock has ranged from \$22.80 per share to \$151.00 per share. The trading price of our Class A common stock may continue to fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- price and volume fluctuations in the overall stock market from time to time;
- volatility in the trading prices and trading volumes of technology stocks;

- changes in operating performance and stock market valuations of other technology companies generally, or those in our industry in particular;
- sales of shares of our Class A common stock by us or our stockholders;
- failure of securities analysts to maintain coverage of us, changes in financial estimates by securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- the financial projections we may provide to the public, any changes in those projections or our failure to meet those projections;
- announcements by us or our competitors of new products or services;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business, including regulations relating to the prevention of spam and robocalls;
- actual or anticipated changes in our results of operations or fluctuations in our results of operations;
- actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;
- litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
- developments or disputes concerning our intellectual property or other proprietary rights;
- announced or completed acquisitions of businesses, products, services or technologies by us or our competitors;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- any significant change in our management; and
- general economic conditions and slow or negative growth of our markets.

In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

***Substantial future sales of shares of our Class A common stock could cause the market price of our Class A common stock to decline.***

The market price of our Class A common stock could decline as a result of substantial sales of our Class A common stock, particularly sales by our directors, executive officers and significant stockholders, or the perception in the market that holders of a large number of shares intend to sell their shares.

Additionally, the shares of Class A common stock subject to outstanding options and restricted stock unit awards under our equity incentive plans and the shares reserved for future issuance under our equity incentive plans will become eligible for sale in the public market upon issuance, subject to applicable insider trading policies. Certain holders of our Class A common stock have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for our stockholders or ourselves.

***The dual class structure of our common stock has the effect of concentrating voting control with those stockholders who held our capital stock prior to the completion of our initial public offering, including our directors, executive officers and their respective affiliates. This limits or precludes your ability to influence corporate matters, including the election of***

**directors, amendments of our organizational documents and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval.**

Our Class B common stock has 10 votes per share, and our Class A common stock has one vote per share. As of December 31, 2019, our directors, executive officers and their respective affiliates, held in the aggregate 28.6% of the voting power of our capital stock. Because of the 10-to-one voting ratio between our Class B common stock and Class A common stock, the holders of our Class B common stock collectively will continue to control a majority of the combined voting power of our common stock and therefore be able to control all matters submitted to our stockholders for approval until the earlier of (i) June 28, 2023, or (ii) the date the holders of two-thirds of our Class B common stock elect to convert the Class B common stock to Class A common stock. This concentrated control limits or precludes your ability to influence corporate matters for the foreseeable future, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval. In addition, this may prevent or discourage unsolicited acquisition proposals or offers for our capital stock that you may feel are in your best interest as one of our stockholders.

Future transfers by holders of Class B common stock will generally result in those shares converting to Class A common stock, subject to limited exceptions, such as certain transfers effected for estate planning purposes. The conversion of Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who retain their shares in the long term.

***If securities or industry analysts cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our Class A common stock adversely, the trading price of our Class A common stock and trading volume could decline.***

The trading market for our Class A common stock is influenced by the research and reports that securities or industry analysts may publish about us, our business, our market or our competitors. If any of the analysts who cover us change their recommendation regarding our Class A common stock adversely, or provide more favorable relative recommendations about our competitors, the trading price of our Class A common stock would likely decline. If any analyst who covers us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the trading price of our Class A common stock or trading volume to decline.

***Anti-takeover provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could impair a takeover attempt.***

Our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law contain provisions which could have the effect of rendering more difficult, delaying, or preventing an acquisition deemed undesirable by our board of directors. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws include provisions:

- authorizing “blank check” preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our Class A and Class B common stock;
- limiting the liability of, and providing indemnification to, our directors and officers;
- limiting the ability of our stockholders to call and bring business before special meetings;
- providing for a dual class common stock structure in which holders of our Class B common stock have the ability to control the outcome of matters requiring stockholder approval, even if they own significantly less than a majority of the outstanding shares of our Class A and Class B common stock, including the election of directors and significant corporate transactions, such as a merger or other sale of our company or its assets;
- providing that our board of directors is classified into three classes of directors with staggered three-year terms;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors; and

- controlling the procedures for the conduct and scheduling of board of directors and stockholder meetings.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prevents certain stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of at least two-thirds of our outstanding common stock not held by such 15% or greater stockholder.

Any provision of our amended and restated certificate of incorporation, amended and restated bylaws or Delaware law that has the effect of delaying, preventing or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock and could also affect the price that some investors are willing to pay for our Class A common stock.

***We do not expect to declare any dividends in the foreseeable future.***

We do not anticipate declaring any cash dividends to holders of our common stock in the foreseeable future. Consequently, investors may need to rely on sales of their Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment. Investors seeking cash dividends should not purchase our Class A common stock.

### **Risks Related to the Outstanding Notes**

***Servicing our future debt may require a significant amount of cash, and we may not have sufficient cash flow from our business to pay our indebtedness.***

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including our 0.25% convertible senior notes due 2023 (the “Notes”), depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional debt financing or equity capital on terms that may be onerous or highly dilutive. Our ability to refinance any future indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations. In addition, any of our future debt agreements may contain restrictive covenants that may prohibit us from adopting any of these alternatives. Our failure to comply with these covenants could result in an event of default which, if not cured or waived, could result in the acceleration of our debt.

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

Subject to limited exceptions, holders of the Notes have the right to require us to repurchase their Notes upon the occurrence of a fundamental change at a fundamental change repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the fundamental change repurchase date. In addition, upon conversion of the Notes, unless we elect to deliver solely shares of our Class A common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the Notes being converted. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of Notes surrendered therefor or pay any cash amounts due upon conversion. In addition, our ability to repurchase the Notes or to pay cash upon conversions of the Notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness. Our failure to repurchase Notes at a time when the repurchase is required by the indenture governing the Notes or to pay any cash payable on future conversions of the Notes as required by such indenture would constitute a default under such indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Notes or make cash payments upon conversions thereof.

***The triggering of the conditional conversion feature of the Notes could adversely affect our financial condition and operating results.***

In the event the conditional conversion feature of the Notes is triggered, holders of the Notes will be entitled to convert the Notes at any time during specified periods at their option. This conditional conversion feature was triggered during the three months ended December 31, 2019, as the last reported sale price of our Class A common stock was more than or equal to 130% of the conversion price for at least 20 trading days (whether or not consecutive) in the period of 30 consecutive trading days ending on December 31, 2019 (the last trading day of the calendar quarter), and therefore the Notes are currently convertible, in whole or in part, at the option of the holders between January 1, 2020 through March 31, 2020. Whether the Notes will be convertible following such period will depend on the continued satisfaction of this condition or another conversion condition in the future. If one or more holders elect to convert their Notes during a period in which the Notes are convertible, unless we elect to satisfy our conversion obligation by delivering solely shares of our Class A common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their Notes, under certain circumstances, such as a fundamental change or default, as described in the indenture, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

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

Under Financial Accounting Standards Board Accounting Standards Codification 470-20, Debt with Conversion and Other Options, which we refer to as ASC 470-20, an entity must separately account for the liability and equity components of convertible debt instruments (such as the Notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. ASC 470-20 requires the value of the conversion option of the Notes, representing the equity component, to be recorded as additional paid-in capital within stockholders' equity in our consolidated balance sheet and as a discount to the debt component of the Notes, which reduces their initial debt carrying value reflected as a liability on our balance sheets. The carrying value of the debt component of the Notes, net of the discount recorded, will be accreted up to the principal amount of the Notes from the issuance date until maturity, which will result in non-cash charges to interest expense in our consolidated statement of operations. Accordingly, we will report lower net income or higher net loss in our financial results because ASC 470-20 requires interest to include both the current period's accretion of the debt discount and the instrument's coupon interest, which could adversely affect our reported or future financial results, the trading price of our Class A common stock and the trading price of the Notes.

In addition, under certain circumstances, convertible debt instruments (such as the Notes) that may be settled entirely or partly in cash are currently accounted for utilizing the treasury stock method, the effect of which is that the shares issuable upon conversion of the Notes are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the Notes exceeds their principal amount. Under the treasury stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of Class A common stock that would be necessary to settle such excess, if we elected to settle such excess in shares, are issued. We cannot be sure that the accounting standards in the future will continue to permit the use of the treasury stock method. If we are unable to use the treasury stock method in accounting for the shares issuable upon conversion of the Notes, then our diluted earnings per share would be adversely affected in periods when we report net income.

***The capped call transactions may affect the value of the Notes and our Class A common stock.***

In connection with the pricing of the Notes, we entered into privately negotiated capped call transactions with the option counterparties. The capped call transactions are expected generally to reduce the potential dilution to our Class A common stock upon any conversion of the Notes and/or offset any potential cash payments we are required to make in excess of the principal amount of converted Notes, as the case may be, with such reduction and/or offset subject to a cap.

In connection with establishing their initial hedges of the capped call transactions, the option counterparties or their respective affiliates entered into various derivative transactions with respect to our Class A common stock and/or purchased shares of our Class A common stock concurrently with or shortly after the pricing of the Notes.

In addition, the option counterparties and/or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our Class A common stock and/or purchasing or selling our Class A common stock or other securities of ours in secondary market transactions at any time prior to the maturity of the Notes (and are likely to

do so during any observation period related to a conversion of Notes). This activity could cause or avoid an increase or a decrease in the market price of our Class A common stock.

We do not make any representation or prediction as to the direction or magnitude of any potential effect that the transactions described above may have on the price of the Notes or our Class A common stock. In addition, we do not make any representation that the option counterparties will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

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

The option counterparties are financial institutions, and we will be subject to the risk that any or all of them might default under the capped call transactions. Our exposure to the credit risk of the option counterparties will not be secured by any collateral. Past global economic conditions have resulted in the actual or perceived failure or financial difficulties of many financial institutions. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under the capped call transactions with such option counterparty. Our exposure will depend on many factors but, generally, an increase in our exposure will be correlated to an increase in the market price and in the volatility of our Class A common stock. In addition, upon a default by an option counterparty, we may suffer adverse tax consequences and more dilution than we currently anticipate with respect to our Class A common stock. We can provide no assurances as to the financial stability or viability of the option counterparties.

**Risks Related to the Acquisition of SendGrid**

***Although we expect that the acquisition of SendGrid will result in synergies and other benefits to us, we may not realize those benefits because of difficulties related to integration, the achievement of synergies, and other challenges.***

We acquired SendGrid on February 1, 2019. Prior to the completion of the acquisition, we and SendGrid operated independently, and there can be no assurances that our businesses can be combined in a manner that allows for the achievement of substantial benefits. The integration process will require significant time and resources, and we may not be able to manage the process successfully as our ability to acquire and integrate larger or more complex companies, products, or technology in a successful manner is unproven. If we are not able to successfully integrate SendGrid's businesses with ours or pursue our customer and product strategy successfully, the anticipated benefits of the acquisition may not be realized fully or may take longer than expected to be realized. Further, it is possible that there could be a loss of our and/or SendGrid's key employees and customers, disruption of either company's or both companies' ongoing businesses or unexpected issues, higher than expected costs and an overall post-completion process that takes longer than originally anticipated. Specifically, the following issues, among others, must be addressed in combining SendGrid's operations with ours in order to realize the anticipated benefits of the acquisition so the combined company performs as the parties hope:

- combining the companies' corporate functions;
- combining SendGrid's business with our business in a manner that permits us to achieve the synergies anticipated to result from the acquisition, the failure of which would result in the anticipated benefits of the acquisition not being realized in the time frame currently anticipated or at all;
- maintaining existing agreements with customers, distributors, providers, talent and vendors and avoiding delays in entering into new agreements with prospective customers, distributors, providers, talent and vendors;
- determining whether and how to address possible differences in corporate cultures and management philosophies;
- integrating the companies' administrative and information technology infrastructure;
- developing products and technology that allow value to be unlocked in the future;
- evaluating and forecasting the financial impact of the acquisition transaction, including accounting charges; and
- effecting potential actions that may be required in connection with obtaining regulatory approvals.

In addition, at times the attention of certain members of our management and resources may be focused on integration of the businesses of the two companies and diverted from day-to-day business operations, which may disrupt our ongoing business and the business of the combined company.

We have incurred, and may continue to incur, significant, non-recurring costs in connection with the acquisition of SendGrid and integrating the operations of Twilio and SendGrid, including costs to maintain employee morale and to retain key employees. Management cannot ensure that the elimination of duplicative costs or the realization of other efficiencies will offset the transaction and integration costs in the near term or at all.

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

None.

### **Item 2. Properties**

We lease all of our facilities and do not own any real property. Our headquarters is located in San Francisco, California where we sub-lease several floors consisting of 259,416 square feet of office space at 101 Spear Street. The sub-lease covers several floors for which the terms commence on December 1, 2018 and April 1, 2020 and will be expiring at various dates between March, 2025 and June, 2028. Our existing lease obligations are secured by letters of credit with a cumulative value of \$20.5 million.

We also lease approximately 400,000 square feet in various locations in North America, South America, Europe and Asia. This includes our international headquarters in Dublin, Ireland and regional offices used for business operations, sales, support, and product development.

Additional information regarding our lease commitments is available in Note 5 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

We intend to procure additional space in the future as we continue to add employees and expand geographically. We believe our facilities are adequate and suitable for our current needs and that, should it be needed, suitable additional or alternative space will be available to accommodate our operations.

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

On April 30, 2015 and March 28, 2016, Telesign Corporation (“Telesign”) filed lawsuits (which were subsequently consolidated) against us in the United States District Court, Central District of California (“Telesign I/II”). Telesign alleges in Telesign I/II that we are infringing four U.S. patents that it holds: U.S. Patent No. 7,945,034 (“034”), U.S. Patent No. 8,462,920 (“920”), U.S. Patent No. 8,687,038 (“038”) and U.S. Patent No. 9,300,792 (“792”). The consolidated Telesign I/II actions have been transferred to the United States District Court, Northern District. The patent infringement allegations in the lawsuit relate to our two-factor authentication use case, *Authy*, and an API tool to find information about a phone number. Telesign seeks, among other things, to enjoin us from allegedly infringing the patents, along with damages for lost profits and damages based on a reasonable royalty.

On March 8, 2017, in response to a petition by us, the U.S. Patent and Trademark Officer (“PTO”) issued an order instituting an *inter partes* review for the ‘792 patent. On March 6, 2018, the PTO found all claims challenged by us in the *inter partes* review unpatentable. Telesign did not appeal the PTO’s decision and it is final. On October 19, 2018, the district court granted our motion that all remaining asserted claims of the asserted patents are invalid under 35 U.S.C. § 101 and entered judgment in our favor. On November 8, 2018, Telesign appealed the judgment to the United States Court of Appeals for the Federal Circuit. On January 9, 2020, the Federal Circuit Court affirmed the district court’s judgment. Telesign has not indicated whether it will seek a further appeal of the judgment. Based on, among other things, the district court’s judgment being affirmed on appeal in our favor, we do not believe a loss is probable or estimable.

On December 1, 2016, we filed a patent infringement lawsuit against Telesign in the United States District Court, Northern District of California (“Telesign III”), alleging infringement of United States Patent No. 8,306,021 (“021”), United States Patent No. 8,837,465 (“465”), United States Patent No. 8,755,376 (“376”), United States Patent No. 8,736,051 (“051”), United States Patent No. 8,737,962 (“962”), United States Patent No. 9,270,833 (“833”), and United States Patent No. 9,226,217 (“217”). Telesign filed a motion to dismiss the complaint on January 25, 2017. In two orders, issued on March 31, 2017 and April 17, 2017, the court granted Telesign’s motion to dismiss with respect to the ‘962, ‘833, ‘051 and ‘217 patents, but denied Telesign’s motion to dismiss as to the ‘021, ‘465 and ‘376 patents. On August 23, 2017, Telesign petitioned the U.S. Patent and Trademark Office (“U.S. PTO”) for *inter partes* review of the ‘021, ‘465, and ‘376 patents. On March 9, 2018, the PTO denied Telesign’s petition for *inter partes* review of the ‘021 patent and granted Telesign’s petitions for *inter*

*partes* review of the '465 and '376 patents. On March 6, 2019, the PTO found all claims challenged by Telesign in the *inter partes* review unpatentable. We have appealed the decisions to the United States Court of Appeals for the Federal Circuit. Telesign III is currently stayed pending resolution of the *inter partes* reviews (and appeals from them) of the '465 and '376 patents. We are seeking a judgment of infringement, a judgment of willful infringement, monetary and injunctive relief, enhanced damages, and an award of costs and expenses against Telesign.

On February 18, 2016, a putative class action complaint was filed in the Alameda County Superior Court in California, entitled Angela Flowers v. Twilio Inc. The complaint alleges that our products permit the interception, recording and disclosure of communications at a customer's request and are in violation of the California Invasion of Privacy Act. The complaint seeks injunctive relief as well as monetary damages. On January 2, 2018, the court issued an order granting in part and denying in part the plaintiff's class certification motion. The court certified two classes of individuals who, during specified time periods, allegedly sent or received certain communications involving the accounts of three of our customers that were recorded. Following mediation, on January 7, 2019, the parties signed a long form settlement agreement, providing for a payment of \$10.0 million into a common fund and injunctive relief involving certain updates to Twilio's Acceptable Use Policy and customer documentation. On January 15, 2019, the court entered an order granting preliminary approval of the settlement, and the parties signed an amended settlement agreement to conform to the court's order. The court entered a final order and judgment approving the settlement on June 17, 2019. On August 30, 2019, we made a payment of \$1.7 million to fund the settlement. A compliance hearing has been scheduled for May 19, 2020. Any additional loss related to this matter is neither probable nor reasonably possible.

On September 1, 2015, we were named as a defendant in a First Amended Complaint in a putative class action captioned Jeremy Bauman v. David Saxe, et al. pending in the United States District Court, District of Nevada relating to the alleged sending of unsolicited text messages to the plaintiffs and putative class members. We filed a motion to dismiss, which was granted, and on September 20, 2016 the plaintiff filed a Second Amended Complaint with additional allegations that we violated the Telephone Consumer Protection Act ("TCPA"), and the Nevada Deceptive Trade Practices Act ("NDTPA"), NRS 41.600(2)(e). On January 10, 2019, the court granted Plaintiffs' motion for class certification under the TCPA and denied plaintiff's request to certify a class under the NDTPA. On February 13, 2019, the court issued an order denying our motion to dismiss as to Plaintiffs' TCPA claim and granting dismissal as to Plaintiffs' NDTPA claim. On February 22, 2019, the court stayed the case and directed all parties to mediation, which was conducted on May 15, 2019. On May 17, 2019, we and the original defendants (the "Saxe Defendants") entered an agreement, which among other things, obligates the Saxe Defendants to fully fund all monetary and non-monetary aspects of the settlement of the matter and to obtain the dismissal of the plaintiffs' and the class's claims against us with prejudice. On October 7, 2019, the plaintiffs filed an unopposed motion for settlement and an unopposed motion to dismiss us from the action without prejudice. Based on, among other things, the dismissal motion and our agreement with the Saxe Defendants, we do not believe a loss is reasonably possible or estimable.

In addition to the litigation discussed above, from time to time, we may be subject to legal actions and claims in the ordinary course of business. We have received, and may in the future continue to receive, claims from third parties asserting, among other things, infringement of their intellectual property rights. Future litigation may be necessary to defend ourselves, our partners and our customers 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 Disclosures**

Not applicable.

## **PART II**

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

##### **Market Price of Our Class A Common Stock**

As of January 31, 2020, we had 111 holders of record of our Class A and Class B common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

##### **Dividend Policy**

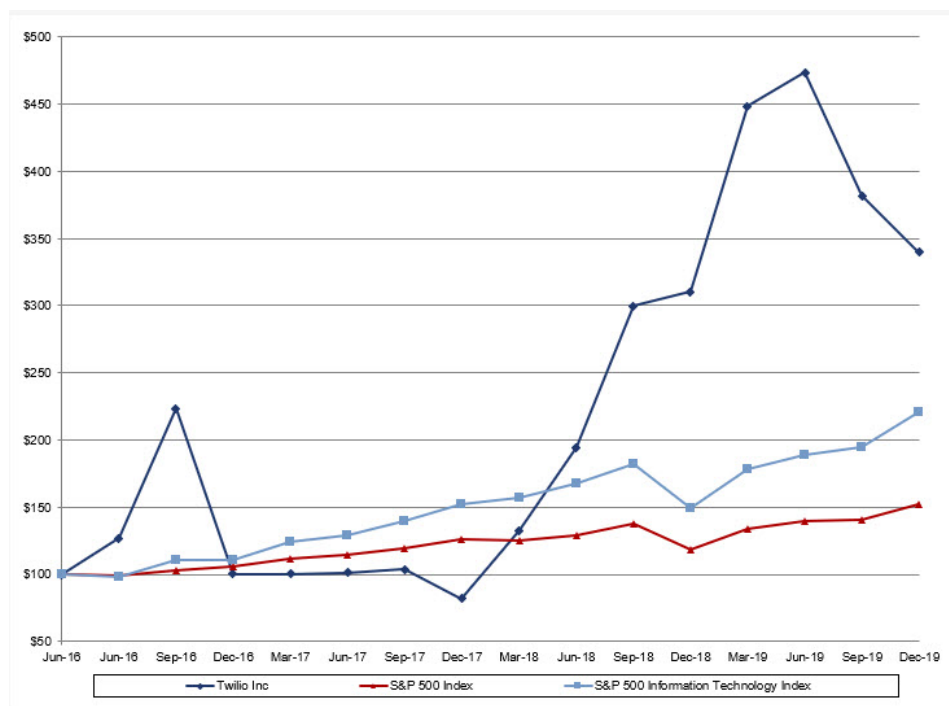


We have never declared or paid any cash dividends on our capital stock. We intend to retain any future earnings and do not expect to pay any dividends in the foreseeable future.

### **Stock Performance Graph**

*This performance graph shall not be deemed "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Twilio Inc. under the Securities Act or the Exchange Act*

We have presented below the cumulative total return to our stockholders between June 23, 2016 (the date our Class A common stock commenced trading on the NYSE) through December 31, 2019 in comparison to the S&P 500 Index and S&P 500 Information Technology Index. All values assume a \$100 initial investment and data for the S&P 500 Index and S&P 500 Information Technology Index assume reinvestment of dividends. The comparisons are based on historical data and are not indicative of, nor intended to forecast, the future performance of our Class A common stock.



### **Recent Sales of Unregistered Securities and Use of Proceeds from Registered Securities**

#### **(a) Sales of Unregistered Securities**

In February 2020, Twilio.org donated 22,102 shares of unregistered Class A common stock to an independent donor advised fund to further our philanthropic goals. The shares are "restricted securities" for purposes of Rule 144 under the Securities Act and the fair market value of these shares on the date of the donation was \$2.7 million. This amount was recorded as general and administrative expense in February 2020 in our consolidated financial statements.

#### **(b) Use of Proceeds**

In June 2019, we closed our follow-on public offering, in which we sold 8,064,515 shares of Class A common stock at a price to the public of \$124.00 per share, including shares sold in connection with the exercise of the underwriters' option to purchase additional shares. The offer and sale of all of the shares in the follow-on offering were registered under the Securities Act pursuant to a registration statement on Form S-3 (File No. 333-231794), which was declared effective by the SEC on May 29, 2019. We raised \$979.0 million in net proceeds after deducting underwriting discounts and commissions and offering expenses paid and payable by us. No payments were made by us to directors, officers or persons owning 10 percent or more of our capital stock or to their associates, or to our affiliates, other than payments in the ordinary course of business to officers for salaries. There has been no material change in the planned use of proceeds from our follow-on offering as described in our final

prospectus filed with the SEC on May 31, 2019 pursuant to Rule 424(b). We invested the funds received in accordance with our board-approved investment policy, which provides for investments in obligations of the U.S. government, money market instruments, registered money market funds and corporate bonds. The managing underwriters of our follow-on offering were Goldman, Sachs & Co. and J.P. Morgan Securities LLC.

**(c) Issuer Purchases of Equity Securities**

None.

**Item 6. Selected Financial and Other Data**

We have derived the selected consolidated statements of operations data for the years ended December 31, 2019, 2018 and 2017 and the balance sheet data as of December 31, 2019 and 2018 from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The selected consolidated statements of operations data for the years ended December 31, 2016 and 2015 and the consolidated balance sheet data as of December 31, 2017, 2016 and 2015 are derived from audited consolidated financial statements not included in this Annual Report on Form 10-K. We have included Twilio SendGrid in our results of operations prospectively after February 1, 2019, the date of acquisition. Our historical results are not necessarily indicative of the results that may be expected in the future. The following selected consolidated financial and other data should be read in conjunction with Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations", and our consolidated financial statements and the related notes appearing in Part II, Item 8, "Financial Statements and Supplementary Data", of this Annual Report on Form 10-K to fully understand factors that may affect the comparability of the information presented below.

**Consolidated Statements of Operations Data:**

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(In thousands, except share and per share amounts)				
Revenue	\$ 1,134,468	\$ 650,067	\$ 399,020	\$ 277,335	\$ 166,919
Cost of revenue <sup>(1) (2)</sup>	525,551	300,841	182,895	120,520	74,454
Gross profit	608,917	349,226	216,125	156,815	92,465
Operating expenses:					
Research and development <sup>(1) (2)</sup>	391,355	171,358	120,739	77,926	42,559
Sales and marketing <sup>(1) (2)</sup>	369,079	175,555	100,669	65,267	49,308
General and administrative <sup>(1) (2)</sup>	218,268	117,548	60,791	54,937	35,991
Total operating expenses	978,702	464,461	282,199	198,130	127,858
Loss from operations	(369,785)	(115,235)	(66,074)	(41,315)	(35,393)
Other income (expenses), net	7,569	(5,923)	3,071	317	11
Loss before benefit (provision) for income taxes	(362,216)	(121,158)	(63,003)	(40,998)	(35,382)
Benefit (provision) for income taxes	55,153	(791)	(705)	(326)	(122)
Net loss	(307,063)	(121,949)	(63,708)	(41,324)	(35,504)
Deemed dividend to investors in relation to tender offer	—	—	—	—	(3,392)
Net loss attributable to common stockholders	\$ (307,063)	\$ (121,949)	\$ (63,708)	\$ (41,324)	\$ (38,896)
Net loss per share attributed to common stockholders, basic and diluted	\$ (2.36)	\$ (1.26)	\$ (0.70)	\$ (0.78)	\$ (2.19)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	130,083,046	97,130,339	91,224,607	53,116,675	17,746,526

**Key Business Metrics:**

**Year Ended December 31,**

	2019	2018	2017	2016	2015
Number of Active Customer Accounts (as of end date of period) <sup>(3)(4)</sup>	179,000	64,286	48,979	36,606	25,347
Base Revenue (in thousands) <sup>(3)(5)</sup>	\$ 1,059,808	\$ 593,017	\$ 365,490	\$ 245,548	\$ 136,851
Base Revenue Growth Rate <sup>(3)</sup>	79%	62%	49%	79%	81%
Dollar-Based Net Expansion Rate <sup>(6)</sup>	136%	140%	128%	161%	155%

<sup>(1)</sup> Includes stock-based compensation expense as follows:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(In thousands)				
Cost of revenue	\$ 7,123	\$ 1,126	\$ 650	\$ 291	\$ 65
Research and development	126,012	42,277	22,808	12,946	4,046
Sales and marketing	60,886	23,616	9,822	4,972	2,389
General and administrative	70,297	26,254	16,339	6,016	2,377
Total	\$ 264,318	\$ 93,273	\$ 49,619	\$ 24,225	\$ 8,877

<sup>(2)</sup> Includes amortization of acquired intangibles as follows:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(In thousands)				
Cost of revenue	\$ 45,267	\$ 5,656	\$ 4,644	\$ 619	\$ 239
Research and development	—	22	139	151	130
Sales and marketing	27,540	1,117	753	—	—
General and administrative	—	375	84	110	95
Total	\$ 72,807	\$ 7,170	\$ 5,620	\$ 880	\$ 464

<sup>(3)</sup> For the year ended December 31, 2019, Active Customer Accounts, Base Revenue, and Base Revenue Growth Rate include the contribution from Twilio SendGrid, which acquisition closed on February 1, 2019. Effective December 31, 2019, we round down the number of Active Customer Accounts to the nearest thousand.

<sup>(4)</sup> See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Business Metrics—Number of Active Customer Accounts."

<sup>(5)</sup> See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Business Metrics—Base Revenue."

<sup>(6)</sup> See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Business Metrics—Dollar- Based Net Expansion Rate."

**Consolidated Balance Sheet Data:**

	As of December 31,				
	2019	2018	2017	2016	2015
	(In thousands)				
Cash and cash equivalents	\$ 253,660	\$ 487,215	\$ 115,286	\$ 305,665	\$ 108,835
Marketable securities	\$ 1,599,033	\$ 261,128	\$ 175,587	\$ —	\$ —
Working capital	\$ 1,814,109	\$ 735,138	\$ 274,738	\$ 279,676	\$ 96,032
Property and equipment, net	\$ 141,256	\$ 63,534	\$ 50,541	\$ 37,552	\$ 14,058
Total assets	\$ 5,150,516	\$ 1,028,710	\$ 449,782	\$ 412,694	\$ 157,516
Total stockholders' equity	\$ 4,279,411	\$ 438,235	\$ 359,846	\$ 329,447	\$ 116,625

**Non-GAAP Financial Measures:**

We use the following non-GAAP financial information, collectively, to evaluate our ongoing operations and for internal planning and forecasting purposes. 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, facilitates period-to-period comparisons of results of operations, and assists in comparisons with other companies, many of which use similar non-GAAP financial information to supplement their GAAP results. Non-GAAP financial information is presented for supplemental informational purposes only, should not be considered a substitute for financial information presented in accordance with generally accepted accounting principles, and may be different from similarly-titled non-GAAP measures used by other companies. Whenever we use a non-GAAP financial measure, a reconciliation is provided to the most closely applicable financial measure stated in accordance with generally accepted accounting principles. Investors are encouraged to review the related GAAP financial measures and the reconciliation of these non-GAAP financial measures to their most directly comparable GAAP financial measures.

**Non-GAAP Gross Profit and Non-GAAP Gross Margin.** For the periods presented, we define non-GAAP gross profit and non-GAAP gross margin as GAAP gross profit and GAAP gross margin, respectively, adjusted to exclude, as applicable, certain expenses as presented in the table below:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
<b>Reconciliation:</b>	(In thousands)				
Gross profit	\$ 608,917	\$ 349,226	\$ 216,125	\$ 156,815	\$ 92,465
Non-GAAP adjustments:					
Stock-based compensation	7,123	1,126	650	291	65
Amortization of acquired intangibles	45,267	5,656	4,644	619	239
Payroll taxes related to stock-based compensation	104	—	—	—	—
Non-GAAP gross profit	<u>\$ 661,411</u>	<u>\$ 356,008</u>	<u>\$ 221,419</u>	<u>\$ 157,725</u>	<u>\$ 92,769</u>
Non-GAAP gross margin	58%	55%	55%	57%	56%

**Non-GAAP Operating Expenses.** For the periods presented, we define non-GAAP operating expenses (including categories of operating expenses) as GAAP operating expenses (and categories of operating expenses) adjusted to exclude, as applicable, certain expenses as presented in the table below:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
<b>Reconciliation:</b>	(In thousands)				
Operating expenses	\$ 978,702	\$ 464,461	\$ 282,199	\$ 198,130	\$ 127,858
Non-GAAP adjustments:					
Stock-based compensation	(257,195)	(92,147)	(48,969)	(23,934)	(8,812)
Amortization of acquired intangibles	(27,540)	(1,514)	(976)	(261)	(225)
Stock repurchase	—	—	—	—	(1,965)
Acquisition-related expenses	(15,713)	(4,481)	(310)	(499)	(1,165)
Release of tax liability upon obligation settlement	—	—	13,365	805	—
Charitable contributions	—	(7,121)	(1,172)	(3,860)	—
Legal settlements/accruals	—	(1,710)	—	—	—
Gain on lease termination	—	—	295	—	—
Payroll taxes related to stock-based compensation	(15,084)	(5,617)	(2,950)	(434)	—
Non-GAAP operating expenses	<u>\$ 663,170</u>	<u>\$ 351,871</u>	<u>\$ 241,482</u>	<u>\$ 169,947</u>	<u>\$ 115,691</u>

**Non-GAAP (Loss) Income from Operations and Non-GAAP Operating Margin.** For the periods presented, we define non-GAAP (loss) income from operations and non-GAAP operating margin as GAAP loss from operations and GAAP operating margin, respectively, adjusted to exclude, as applicable, certain expenses as presented in the table below:

	Year Ended December 31,				
	2019	2018	2017	2016	2015
<b>Reconciliation:</b>	(In thousands)				
Loss from operations	\$ (369,785)	\$ (115,235)	\$ (66,074)	\$ (41,315)	\$ (35,393)
Non-GAAP adjustments:					
Stock-based compensation	264,318	93,273	49,619	24,225	8,877
Amortization of acquired intangibles	72,807	7,170	5,620	880	464
Stock repurchase	—	—	—	—	1,965
Acquisition-related expenses	15,713	4,481	310	499	1,165
Release of tax liability upon obligation settlement	—	—	(13,365)	(805)	—
Charitable contributions	—	7,121	1,172	3,860	—
Legal settlements/accruals	—	1,710	—	—	—
Gain on lease termination	—	—	(295)	—	—
Payroll taxes related to stock-based compensation	15,188	5,617	2,950	434	—
Non-GAAP (loss) income from operations	<u>\$ (1,759)</u>	<u>\$ 4,137</u>	<u>\$ (20,063)</u>	<u>\$ (12,222)</u>	<u>\$ (22,922)</u>
Non-GAAP operating margin	—%	1%	(5)%	(4)%	(14)%

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. In addition to historical financial information, the following discussion contains forward-looking statements that are based upon current plans, expectations and beliefs that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under Part I, Item 1A, "Risk Factors" in this Annual Report on Form 10-K. Our fiscal year ends on December 31.

### Overview

We are the leader in the Cloud Communications Platform category. We enable developers to build, scale and operate real-time communications within their software applications via our simple-to-use Application Programming Interfaces ("APIs"). The power, flexibility, and reliability offered by our software building blocks empowers companies of virtually every shape and size to build world-class engagement into their customer experience.

We offer a Customer Engagement Platform with software designed to address specific use cases like account security and contact centers and a set of APIs that handles the higher level communication logic needed for nearly every type of customer engagement. These APIs are focused on the business challenges that a developer is looking to address, allowing our customers to more quickly and easily build better ways to engage with their customers throughout their journey. We also offer a set of APIs that enables developers to embed voice, messaging, video and email capabilities into their applications and are designed to support almost all the fundamental ways humans communicate, unlocking innovators to address just about any communication market. The Super Network is our software layer that allows our customers' software to communicate with connected devices globally. It interconnects with communications networks and inbox service providers around the world and continually analyzes data to optimize the quality and cost of communications that flow through our platform. The Super Network also contains a set of APIs that gives our customers access to more foundational components of our platform, like phone numbers.

Our customers' applications are able to reach users via voice, messaging, video and email in nearly every country in the world by utilizing our platform. We support our global business through more than 25 cloud data centers in nine regions around the world and have developed contractual relationships with network service providers globally.

Our business model is primarily focused on reaching and serving the needs of software developers, who we believe are becoming increasingly influential in technology decisions in a wide variety of companies. We call this approach our Business Model for Innovators, which empowers developers by reducing friction and upfront costs, encouraging experimentation, and enabling developers to grow as customers as their ideas succeed. We established and maintain our leadership position by engaging directly with, and cultivating, our developer community, which has led to the rapid adoption of our platform. We reach developers through community events and conferences, including our SIGNAL customer and developer conferences, to demonstrate how every developer can create differentiated applications incorporating communications using our products.

Once developers are introduced to our platform, we provide them with a low friction trial experience. By accessing our easy-to-adopt APIs, extensive self-service documentation and customer support team, developers build our products into their applications and then test such applications through free trial periods that we provide. Once they have decided to use our products beyond the initial free trial period, customers provide their credit card information and only pay for the actual usage of our products. Historically, we have acquired the substantial majority of our customers through this self-service model. As customers expand their usage of our platform, our relationships with them often evolve to include business leaders within their organizations. Once our customers reach a certain spending level with us, we support them with account executives or customer success advocates within our sales organization to ensure their satisfaction and expand their usage of our products.

We also supplement our self-service model with a sales effort aimed at engaging larger potential customers, strategic leads and existing customers through a direct sales approach. To help increase awareness of our products in the enterprise, we have expanded our marketing efforts through programs like our Twilio Engage roadshow where we seek to bring business leaders and developers together to discuss the future of customer engagement. We have developed products to support this effort as well, like the Twilio Enterprise Plan, which provides capabilities for advanced security, access management and granular administration. Our sales organization targets technical leaders and business leaders who are seeking to leverage software to drive competitive differentiation. As we educate these leaders on the benefits of developing applications incorporating our products to differentiate their business, they often consult with their developers regarding implementation. We believe that developers are often advocates for our products as a result of our developer-focused approach. Our sales organization includes sales development, inside sales, field sales and sales engineering personnel.

When potential customers do not have the available developer resources to build their own applications, we refer them to either our technology partners who embed our products in the solutions that they sell to other businesses (such as contact centers and sales force and marketing automation) or our consulting partners who provide consulting and development services for organizations that have limited software development expertise to build our platform into their software applications.

We generate the substantial majority of our revenue from customers based on their usage of our software products that they have incorporated into their applications. Our Flex contact center platform is generally offered on a per user, per month basis or on a usage basis per agent hour. In addition, our email API is offered on a monthly subscription basis and our Marketing Campaigns product is priced based on the number of email contacts stored on our platform and the number of monthly emails sent to those contacts through our Email API. Also, customers using our Programmable Messaging or Programmable Voice APIs typically purchase one or more telephone numbers from us, for which we charge a monthly flat fee per number. Some customers also choose to purchase various levels of premium customer support for a monthly fee. Customers that register in our self-service model typically pay upfront via credit card and draw down their balance as they purchase or use our products. Most of our customers draw down their balance in the same month they pay up front or are charged on a monthly subscription basis for our email-related products. As a result, our deferred revenue and customer deposits liability at any particular time is not a meaningful indicator of future revenue. As our customers' usage grows, some of our customers enter into contracts and are invoiced monthly in arrears. Many of these customer contracts have terms of 12 months and typically include some level of minimum revenue commitment. Most customers with minimum revenue commitment contracts generate a significant amount of revenue in excess of their minimum revenue commitment in any period. Historically, the aggregate minimum commitment revenue from customers with whom we have contracts has constituted a minority of our revenue in any period, and we expect this to continue in the future.

Our developer-focused products are delivered to customers and users through our Super Network, which uses software to optimize communications on our platform. We interconnect with communications networks and inbox service providers globally to deliver our products, and therefore we have arrangements with network service providers in many regions in the world. Historically, a substantial majority of our cost of revenue has been network service provider fees. We continue to optimize our network service provider coverage and connectivity through continuous improvements in routing and sourcing in

order to lower the usage expenses we incur for network service provider fees. As we benefit from our platform optimization efforts, we sometimes pass these savings on to customers in the form of lower usage prices on our products in an effort to drive increased usage and expand the reach and scale of our platform. In the near term, we intend to operate our business to expand the reach and scale of our platform and to grow our revenue, rather than to maximize our gross margins.

We have achieved significant growth in recent periods. In the years ended December 31, 2019, 2018 and 2017, our revenue was \$1,134.5 million, \$650.1 million and \$399.0 million, respectively. In the years ended December 31, 2019, 2018, and 2017, our 10 largest Active Customer Accounts generated an aggregate of 13%, 18% and 19%, respectively, of our total revenue. Among our 10 largest Active Customer Accounts we had three Variable Customer Accounts representing 6%, 8% and 8% of our total revenue for the years ended December 31, 2019, 2018 and 2017, respectively. In the years ended December 31, 2019, 2018 and 2017, our Base Revenue was \$1,059.8 million, \$593.0 million and \$365.5 million, respectively, and our net loss was \$307.1 million, \$121.9 million and \$63.7 million, respectively. See the section titled “Key Business Metrics-Base Revenue” for a discussion of Base Revenue.

### **Acquisition of SendGrid, Inc.**

In February 2019, we acquired SendGrid, Inc. (“SendGrid”), the leading email API platform, by issuing 23.6 million shares of its Class A common stock with a total value of \$2,658.9 million. We also assumed all of the outstanding stock options and restricted stock units of SendGrid as converted into stock options and restricted stock units, respectively, of the Company based on the conversion ratio provided in the Agreement and Plan of Merger and Reorganization, as amended.

We have included Twilio SendGrid in our results of operations prospectively after February 1, 2019, the date of acquisition. Because the acquisition of Twilio SendGrid occurred during the year ended December 31, 2019, the information presented in this section with respect to the year ended December 31, 2019 includes the contribution of Twilio SendGrid starting on the date of the acquisition on February 1, 2019, and the information presented in this section with respect to the prior-year comparable periods relates to Twilio on a standalone basis. As a result, comparisons to the prior-year period may not be indicative of future results or future rates of growth

### **Public Equity Offering**

In June 2019, we completed a public equity offering in which we sold 8,064,515 shares of our Class A common stock, which included 1,051,893 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at a public offering price of \$124.00 per share. We received aggregate proceeds of \$979.0 million after deducting underwriting discounts and offering expenses paid and payable by us.

## **Key Business Metrics**

	Year Ended December 31,		
	2019	2018	2017
Number of Active Customer Accounts (as of end date of period) <sup>(1)</sup>	179,000	64,286	48,979
Base Revenue (in thousands) <sup>(1)</sup>	\$ 1,059,808	\$ 593,017	\$ 365,490
<i>Base Revenue Growth Rate</i> <sup>(1)</sup>	79%	62%	49%
Dollar-Based Net Expansion Rate	136%	140%	128%

<sup>(1)</sup> For the year ended December 31, 2019, Active Customer Accounts, Base Revenue, and Base Revenue Growth Rate include the contribution from our Twilio SendGrid acquisition, which closed on February 1, 2019. Effective December 31, 2019, we round down the number of Active Customer Accounts to the nearest thousand.

**Number of Active Customer Accounts.** We believe that the number of our Active Customer Accounts is an important indicator of the growth of our business, the market acceptance of our platform and future revenue trends. We define an Active Customer Account at the end of any period as an individual account, as identified by a unique account identifier, for which we have recognized at least \$5 of revenue in the last month of the period. We believe that the use of our platform by our customers at or above the \$5 per month threshold is a stronger indicator of potential future engagement than trial usage of our platform or usage at levels below \$5 per month. A single organization may constitute multiple unique Active Customer Accounts if it has

multiple account identifiers, each of which is treated as a separate Active Customer Account. Effective December 31, 2019, we round down the number of Active Customer Accounts to the nearest thousand.

In the years ended December 31, 2019, 2018, and 2017, revenue from Active Customer Accounts represented over 99% of total revenue in each period.

**Base Revenue.** Base Revenue consists of all revenue other than revenue from large Active Customer Accounts that have never entered into 12-month minimum revenue commitment contracts with us, which we refer to as Variable Customer Accounts. While almost all of our customer accounts exhibit some level of variability in the usage of our products, based on the experience of our management, we believe that Variable Customer Accounts are more likely to have significant fluctuations in usage of our products from period to period, and therefore that revenue from Variable Customer Accounts may also fluctuate significantly from period to period. This behavior is best evidenced by the decision of such customers not to enter into contracts with us that contain minimum revenue commitments, even though they may spend significant amounts on the use of our products, and they may be foregoing more favorable terms often available to customers that enter into committed contracts with us. With the growth of our business in recent years, including through revenue contribution from the acquisition of Twilio SendGrid, revenue from Variable Customer Accounts has become less meaningful as a percentage of total revenue. As a result, for reporting periods starting with the three months ending March 31, 2020, we will only disclose Total Revenue and will cease to disclose Base Revenue as an operating metric.

For historical periods through March 31, 2016, we defined a Variable Customer Account as an Active Customer Account that (i) has never signed a minimum revenue commitment contract with us for a term of at least 12 months and (ii) has met or exceeded 1% of our revenue in any quarter in the periods presented through March 31, 2016. To allow for consistent period-to-period comparisons, in the event a customer account qualified as a Variable Customer Account as of March 31, 2016, or a previously Variable Customer Account ceased to be an Active Customer Account as of such date, we included such customer account as a Variable Customer Account in all periods presented. For reporting periods starting with the three months ended June 30, 2016, we define a Variable Customer Account as a customer account that (a) has been categorized as a Variable Customer Account in any prior quarter, as well as (b) any new customer account that (i) is with a customer that has never signed a minimum revenue commitment contract with us for a term of at least 12 months and (ii) meets or exceeds 1% of our revenue in a quarter. Once a customer account is deemed to be a Variable Customer Account in any period, they remain a Variable Customer Account in subsequent periods unless they enter into a minimum revenue commitment contract with us for a term of at least 12 months.

In the years ended December 31, 2019, 2018 and 2017, we had six Variable Customer Accounts, which represented 7%, 9%, and 8%, respectively, of our total revenue.

**Dollar-Based Net Expansion Rate.** Our ability to drive growth and generate incremental revenue depends, in part, on our ability to maintain and grow our relationships with existing Active Customer Accounts and to increase their use of the platform. An important way in which we have historically tracked performance in this area is by measuring the Dollar-Based Net Expansion Rate for Active Customer Accounts, other than Variable Customer Accounts. Our Dollar-Based Net Expansion Rate increases when such Active Customer Accounts increase their usage of a product, extend their usage of a product to new applications or adopt a new product. Our Dollar-Based Net Expansion Rate decreases when such Active Customer Accounts cease or reduce their usage of a product or when we lower usage prices on a product. As our customers grow their businesses and extend the use of our platform, they sometimes create multiple customer accounts with us for operational or other reasons. As such, for reporting periods starting with the three months ended December 31, 2016, when we identify a significant customer organization (defined as a single customer organization generating more than 1% of revenue in a quarterly reporting period) that has created a new Active Customer Account, this new Active Customer Account is tied to, and revenue from this new Active Customer Account is included with, the original Active Customer Account for the purposes of calculating this metric. We believe that measuring Dollar-Based Net Expansion Rate provides a more meaningful indication of the performance of our efforts to increase revenue from existing customers.

For historical periods through December 31, 2019, our Dollar-Based Net Expansion Rate compares the revenue from Active Customer Accounts, other than Variable Customer Accounts, in a quarter to the same quarter in the prior year. For reporting periods starting with the three months ending March 31, 2020, Twilio's Dollar-Based Net Expansion Rate will compare the revenue from all Active Customer Accounts, including Variable Customer Accounts, in a quarter to the same quarter in the prior year. To calculate the Dollar-Based Net Expansion Rate, we first identify the cohort of Active Customer Accounts (other than Variable Customer Accounts through December 31, 2019) that were Active Customer Accounts in the same quarter of the prior year. The Dollar-Based Net Expansion Rate is the quotient obtained by dividing the revenue generated from that cohort in a quarter, by the revenue generated from that same cohort in the corresponding quarter in the prior year. When we calculate Dollar-Based Net Expansion Rate for periods longer than one quarter, it uses the average of the applicable



quarterly Dollar-Based Net Expansion Rates for each of the quarters in such period. Given that we will no longer disclose Base Revenue as an operating metric for reporting periods starting with the three months ending March 31, 2020, our Dollar-Based Net Expansion Rate will compare the revenue from all Active Customer Accounts, including Variable Customer Accounts, in a quarter to the same quarter in the prior year.

### **Net Loss Carryforwards**

At December 31, 2019, we had federal, state and foreign net operating loss carryforwards of approximately \$1,159.3 million, \$630.2 million and \$13.8 million respectively, and federal and state tax credits of approximately \$58.4 million and \$38.8 million, respectively. If not utilized, the federal and state loss carryforwards will expire at various dates beginning in 2029 and 2025, respectively, and the federal tax credits will expire at various dates beginning in 2029. The state tax credits can be carried forward indefinitely. At present, we believe that it is more likely than not that the federal and state net operating loss and credit carryforwards will not be realized. Accordingly, a full valuation allowance has been established for these tax attributes, as well as the rest of the federal and state deferred tax assets.

### **Key Components of Statements of Operations**

**Revenue.** We derive our revenue primarily from usage-based fees earned from customers using the software products within our Solutions APIs and Channel APIs. These usage-based software products include offerings, such as Programmable Voice, Programmable Messaging and Programmable Video. Some examples of the usage-based fees for which we charge include minutes of call duration activity for our Programmable Voice products, number of text messages sent or received using our Programmable Messaging products and number of authentications for our Account Security products. In the years ended December 31, 2019, 2018, and 2017, we generated 75%, 84%, and 83% of our revenue, respectively, from usage-based fees. We also earn monthly flat fees from certain fee-based products, such as our Email API, Marketing Campaigns, Flex seats, telephone numbers, short codes and customer support.

Customers typically pay upfront via credit card in monthly prepaid amounts and draw down their balances as they purchase or use our products. As customers grow their usage of our products, they automatically receive tiered usage discounts. Our larger customers often enter into contracts, for at least 12 months that contain minimum revenue commitments, which may contain more favorable pricing. Customers on such contracts typically are invoiced monthly in arrears for products used.

Amounts that have been charged via credit card or invoiced are recorded in accounts receivable and in revenue, deferred revenue or customer deposits, depending on whether the revenue recognition criteria have been met. Our deferred revenue and customer deposits liability balance is not a meaningful indicator of our future revenue at any point in time because very few of our contracts with invoiced customers contain terms requiring any form of prepayment.

We define U.S. revenue as revenue from customers with IP addresses or mailing addresses at the time of registration in the United States, and we define international revenue as revenue from customers with IP addresses or mailing addresses at the time of registration outside of the United States.

**Cost of Revenue and Gross Margin.** Cost of revenue consists primarily of fees paid to network service providers. Cost of revenue also includes cloud infrastructure fees, direct costs of personnel, such as salaries and stock-based compensation for our customer support employees, and non-personnel costs, such as depreciation and amortization expense related to data centers and hosting equipment, amortization of capitalized internal use software development costs and amortization of acquired intangibles. Our arrangements with network service providers require us to pay fees based on the volume of phone calls initiated or text messages sent, as well as the number of telephone numbers acquired by us to service our customers. Our arrangements with our cloud infrastructure provider require us to pay fees based on our server capacity consumption.

Our gross margin has been and will continue to be affected by a number of factors, including the timing and extent of our investments in our operations, our product mix, our ability to manage our network service provider and cloud infrastructure-related fees, the mix of U.S. revenue compared to international revenue, changes in foreign exchange rates and the timing of amortization of capitalized software development costs and acquired intangibles and the extent to which we periodically choose to pass on our cost savings from platform optimization efforts to our customers in the form of lower usage prices.

**Operating Expenses.** The most significant components of operating expenses are personnel costs, which consist of salaries, benefits, sales commissions and bonuses and stock-based compensation. We also incur other non-personnel costs related to our general overhead expenses. We expect that our operating costs will increase in absolute dollars as we add additional employees and invest in our infrastructure to grow our business.

**Research and Development.** Research and development expenses consist primarily of personnel costs, outsourced engineering services, cloud infrastructure fees for staging and development, amortization of capitalized internal use software development costs, depreciation and an allocation of our general overhead expenses. We capitalize the portion of our software development costs that meets the criteria for capitalization.

We continue to focus our research and development efforts on adding new features and products, including new use cases, improving our platform and increasing the functionality of our existing products.

**Sales and Marketing.** Sales and marketing expenses consist primarily of personnel costs, including commissions for our sales employees. Sales and marketing expenses also include expenditures related to advertising, marketing, our brand awareness activities and developer evangelism, costs related to our SIGNAL customer and developer conferences, credit card processing fees, professional services fees, depreciation and an allocation of our general overhead expenses.

We focus our sales and marketing efforts on generating awareness of our company, platform and products through our developer evangelist team and self-service model, creating sales leads and establishing and promoting our brand, both domestically and internationally. We plan to continue investing in sales and marketing by increasing our sales and marketing headcount, supplementing our self-service model with an enterprise sales approach, expanding our sales channels, driving our go-to-market strategies, building our brand awareness and sponsoring additional marketing events.

**General and Administrative.** General and administrative expenses consist primarily of personnel costs for our accounting, finance, legal, human resources and administrative support personnel and executives. General and administrative expenses also include costs related to business acquisitions, legal and other professional services fees, certain taxes, depreciation and amortization and an allocation of our general overhead expenses. We expect that we will incur costs associated with supporting the growth of our business and to meet the increased compliance requirements associated with our international expansion.

Our general and administrative expenses include a certain amount of sales and other taxes to which we are subject based on the manner we sell and deliver our products. Prior to March 2017, we did not collect such taxes from our customers and recorded such taxes as general and administrative expenses. Effective March 2017, we began collecting these taxes from customers in certain jurisdictions and since then we have expanded to most jurisdictions where these taxes are now being collected. We continue expanding the number of jurisdictions where we will be collecting these taxes in the future. We expect that these expenses will continue to decline in future years as we continue collecting these taxes from our customers in additional jurisdictions, which would further reduce our rate of ongoing accrual.

**Provision for Income Taxes.** Our income tax provision or benefit for interim periods is determined using an estimate of our annual effective tax rate, adjusted for discrete items occurring in the quarter. The primary difference between our effective tax rate and the federal statutory rate relates to the net operating losses in jurisdictions with a valuation allowance or a zero tax rate, and the income tax benefit recorded in connection with the SendGrid, Inc. ("SendGrid") acquisition.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (Tax Act). The Tax Act reduces the U.S. statutory corporate tax rate to 21%, effective January 1, 2018. Consequently, we recorded a decrease to the Company's federal deferred tax assets of \$28.0 million, which was fully offset by a reduction of our valuation allowance for the year ended December 31, 2017. The other provisions of the Tax Act, including the one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings, did not have a material impact on our financial statements as of December 31, 2018.

In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act (SAB 118), which allowed companies to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Our accounting for the Tax Act is complete and we did not have any significant adjustments to provisional amounts recorded as of December 31, 2017.

On June 7, 2019, a three-judge panel from the U.S. Court of Appeals for the Ninth Circuit overturned the U.S. Tax Court's decision in *Altera Corp. v. Commissioner* and upheld the portion of the Treasury regulations under Section 482 of the Internal Revenue Code that requires related parties in a cost-sharing arrangement to share expenses related to share-based compensation. As a result of this decision, our gross unrecognized tax benefits increased to reflect the impact of including share-based compensation in cost-sharing arrangements. On July 22, 2019, Altera filed a petition for a rehearing before the full Ninth Circuit. On November 12, 2019, the Ninth Circuit Court denied Altera's request for rehearing. Altera has appealed to the Supreme Court. We will continue to monitor future developments and their potential effects on our consolidated financial statements.

## Results of Operations

The following tables set forth our results of operations for the periods presented and as a percentage of our total revenue for those periods. The period-to-period comparison of our historical results are not necessarily indicative of the results that may be expected in the future.

	Year Ended December 31,		
	2019	2018	2017
	(In thousands, except share and per share amounts)		
Revenue	\$ 1,134,468	\$ 650,067	\$ 399,020
Cost of revenue <sup>(1) (2)</sup>	525,551	300,841	182,895
Gross profit	608,917	349,226	216,125
Operating expenses:			
Research and development <sup>(1) (2)</sup>	391,355	171,358	120,739
Sales and marketing <sup>(1) (2)</sup>	369,079	175,555	100,669
General and administrative <sup>(1) (2)</sup>	218,268	117,548	60,791
Total operating expenses	978,702	464,461	282,199
Loss from operations	(369,785)	(115,235)	(66,074)
Other income (expenses), net	7,569	(5,923)	3,071
Loss before benefit (provision) for income taxes	(362,216)	(121,158)	(63,003)
Benefit (provision) for income taxes	55,153	(791)	(705)
Net loss attributable to common stockholders	(307,063)	(121,949)	(63,708)
Net loss per share attributed to common stockholders, basic and diluted	\$ (2.36)	\$ (1.26)	\$ (0.70)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	130,083,046	97,130,339	91,224,607

<sup>(1)</sup> Includes stock-based compensation expense as follows:

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Cost of revenue	\$ 7,123	\$ 1,126	\$ 650
Research and development	126,012	42,277	22,808
Sales and marketing	60,886	23,616	9,822
General and administrative	70,297	26,254	16,339
Total	\$ 264,318	\$ 93,273	\$ 49,619

<sup>(2)</sup> Includes amortization of acquired intangibles as follows:

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Cost of revenue	\$ 45,267	\$ 5,656	\$ 4,644
Research and development	—	22	139
Sales and marketing	27,540	1,117	753
General and administrative	—	375	84
Total	\$ 72,807	\$ 7,170	\$ 5,620

**Consolidated Statements of Operations, as a percentage of revenue: \*\***

	Year Ended December 31,		
	2019	2018	2017
Revenue	100%	100%	100 %
Cost of revenue	46	46	46
Gross profit	54	54	54
Operating expenses:			
Research and development	34	26	30
Sales and marketing	33	27	25
General and administrative	19	18	15
Total operating expenses	86	71	71
Loss from operations	(33)	(18)	(17)
Other income (expenses), net	1	(1)	1
Loss before benefit (provision) for income taxes	(32)	(19)	(16)
Benefit (provision) for income taxes	5	*	*
Net loss attributable to common stockholders	(27%)	(19%)	(16)%

\* Less than 0.5% of revenue.

\*\* Columns may not add up to 100% due to rounding.

**Comparison of the Fiscal Years Ended December 31, 2019, 2018 and 2017**
**Revenue**

	Year Ended December 31,			2018 to 2019 Change	2017 to 2018 Change
	2019	2018	2017		
	(Dollars in thousands)				
Base Revenue	\$ 1,059,808	\$ 593,017	\$ 365,490	\$ 466,791	79%
Variable Revenue	74,660	57,050	33,530	17,610	31%
Total Revenue	\$ 1,134,468	\$ 650,067	\$ 399,020	\$ 484,401	75%

**2019 compared to 2018**

In 2019, Base Revenue increased by \$466.8 million, or 79%, compared to the same period last year, and represented 93% and 91% of total revenue in 2019 and 2018, respectively. This increase was primarily attributable to an increase in the usage of our products, particularly our Programmable Messaging products and Programmable Voice products, the adoption of additional products by our existing customers, and revenue contribution from our acquisition of the Twilio SendGrid business for the period from February 1, 2019 through December 31, 2019. This increase was partially offset by pricing decreases that we have implemented over time in the form of lower usage prices, in an effort to increase the reach and scale of our platform. The changes in usage and price in 2019, were reflected in our Dollar-Based Net Expansion Rate of 136%. The increase in usage was also attributable to a 178% increase in the number of Active Customer Accounts, from 64,286 as of December 31, 2018, to over 179,000 as of December 31, 2019, which was also positively impacted by the customer accounts added through our acquisition of the Twilio SendGrid business.

In 2019, Variable Revenue increased by \$17.6 million, or 31%, compared to the same period last year, and represented 7% and 9% of total revenue in the years ended December 31, 2019 and 2018, respectively. This increase was primarily attributable to the increase in the usage of products by our existing Variable Customer Accounts.

In 2019, U.S. revenue and international revenue represented \$808.9 million or 71%, and \$325.6 million, or 29%, respectively, of total revenue. In 2018, U.S. revenue and international revenue represented \$484.8 million, or 75%, and \$165.3 million, or 25%, respectively, of total revenue. The increase in international revenue was attributable to the growth in usage of

our products, particularly our Programmable Messaging products and Programmable Voice products, by our existing international Active Customer Accounts; a 167% increase in the number of international Active Customer Accounts driven in part by our focus on expanding our sales to customers outside of the United States; and revenue contribution from our acquisition of the Twilio SendGrid business.

#### *2018 compared to 2017*

In 2018, Base Revenue increased by \$227.5 million, or 62%, compared to the same period last year, and represented 91% and 92% of total revenue in 2018 and 2017, respectively. This increase was primarily attributable to an increase in the usage of our products, particularly our Programmable Messaging products and Programmable Voice products, and the adoption of additional products by our existing customers. This increase was partially offset by pricing decreases that we have implemented over time in the form of lower usage prices, in an effort to increase the reach and scale of our platform. The changes in usage and price in 2018 were reflected in our Dollar-Based Net Expansion Rate of 140%. The increase in usage was also attributable to a 31% increase in the number of Active Customer Accounts, from 48,979 as of December 31, 2017, to 64,286 as of December 31, 2018.

In 2018, Variable Revenue increased by \$23.5 million, or 70%, compared to the same period last year, and represented 9% and 8% of total revenue in 2018 and 2017, respectively. This increase was primarily attributable to the increase in the usage of products by our existing Variable Customer Accounts.

In 2018, U.S. revenue and international revenue represented \$484.8 million, or 75%, and \$165.3 million, or 25%, respectively, of total revenue. In 2017, U.S. revenue and international revenue represented \$308.6 million, or 77%, and \$90.4 million, or 23%, respectively, of total revenue. The increase in international revenue was attributable to the growth in usage of our products, particularly our Programmable Messaging products and Programmable Voice products, by our existing international Active Customer Accounts, and a 57% increase in the number of international Active Customer Accounts driven in part by our focus on expanding our sales to customers outside of the United States.

### **Cost of Revenue and Gross Margin**

	Year Ended December 31,			2018 to 2019 Change	2017 to 2018 Change
	2019	2018	2017		
	(Dollars in thousands)				
Cost of revenue	\$ 525,551	\$ 300,841	\$ 182,895	\$ 224,710	75%
Gross margin	54%	54%	54%	\$ 117,946	64%

#### *2019 compared to 2018*

In 2019, cost of revenue increased by \$224.7 million, or 75%, compared to the same period last year. The increase in cost of revenue was primarily attributable to a \$133.1 million increase in network service providers' costs and a \$18.6 million increase in cloud infrastructure fees, both to support the growth in usage of our products. The increase was also due to a \$39.6 million increase in depreciation and amortization expense primarily related to the acquired intangible assets and our internally developed software.

In 2019, gross margin percentage remained stable compared to 2018. Changes in product mix, which includes the impact of the acquisition of the Twilio SendGrid business, and some operational improvements were largely offset by an increase in amortization expense related to acquired intangible assets, the impact of an increasing mix of international product usage, and an increase in network service provider fees in certain geographies.

#### *2018 compared to 2017*

In 2018, cost of revenue increased by \$117.9 million, or 64%, compared to the same period last year. The increase in cost of revenue was primarily attributable to a \$104.4 million increase in network service providers' costs and a \$7.6 million increase in cloud infrastructure fees, both to support the growth in usage of our products.

In 2018, gross margin percentage remained stable compared to 2017. Higher network service provider costs related to foreign currency fluctuations, certain price adjustments that were made by us in 2017 as a result of the high volume growth of

a large customer, an increasing mix of international product usage and an increase in network service provider fees in certain geographies were largely offset by operational improvements and changes in product mix.

### Operating Expenses

	Year Ended December 31,			2018 to 2019 Change		2017 to 2018 Change	
	2019	2018	2017				
(Dollars in thousands)							
Research and development	\$ 391,355	\$ 171,358	\$ 120,739	\$ 219,997	128%	\$ 50,619	42%
Sales and marketing	369,079	175,555	100,669	193,524	110%	74,886	74%
General and administrative	218,268	117,548	60,791	100,720	86%	56,757	93%
Total operating expenses	\$ 978,702	\$ 464,461	\$ 282,199	\$ 514,241	111%	\$ 182,262	65%

#### 2019 compared to 2018

In 2019, research and development expenses increased by \$220.0 million, or 128%, compared to the same period last year. The increase was primarily attributable to a \$183.3 million increase in personnel costs, net of a \$5.0 million increase in capitalized software development costs, largely as a result of a 71% average increase in our research and development headcount, as we continued to focus on enhancing our existing products, introducing new products as well as enhancing product management and other technical functions. This increase also reflected the impact of growth in the headcount as a result of the acquisition of our Twilio SendGrid business. The increase was also due to a \$16.5 million increase in facilities and depreciation expenses to accommodate the growth in our headcount. In addition, 2019 included research and development expenses from our acquired Twilio SendGrid business for the period from February 1, 2019 through December 31, 2019.

In 2019, sales and marketing expenses increased by \$193.5 million, or 110%, compared to the same period last year. The increase was primarily attributable to a \$117.3 million increase in personnel costs, largely as a result of a 93% average increase in sales and marketing headcount, as we continued to expand our sales efforts in the United States and internationally. The increase also reflected the impact of growth in the headcount as a result of the acquisition of our Twilio SendGrid business. The increase was also due to a \$26.4 million increase related to the amortization of acquired intangible assets, a \$16.4 million increase in advertising expenses and an \$11.4 million increase in facilities and related expenses. In addition, 2019 included sales and marketing expenses from our acquired Twilio SendGrid business for the period from February 1, 2019 through December 31, 2019.

In 2019, general and administrative expenses increased by \$100.7 million, or 86%, compared to the same period last year. The increase was primarily attributable to a \$74.3 million increase in personnel costs, largely as a result of a 64% average increase in general and administrative headcount, to support the growth of our business domestically and internationally. The increase also reflected the impact of growth in the headcount as a result of the acquisition of our Twilio SendGrid business. The increase was also due to a \$11.7 million increase in professional expenses related to our acquisitions of other business and a \$6.5 million increase in facilities and depreciation expenses. In addition, 2019 included general and administrative expenses from our acquired Twilio SendGrid business for the period from February 1, 2019 through December 31, 2019.

#### 2018 compared to 2017

In 2018, research and development expenses increased by \$50.6 million, or 42%, compared to the same period last year. The increase was primarily attributable to a \$37.0 million increase in personnel costs, net of a \$3.3 million increase in capitalized software development costs, largely as a result of an 32% average increase in our research and development headcount, as we continued to focus on enhancing our existing products and introducing new products, as well as enhancing product management and other technical functions. The increase was also due to a \$2.9 million increase in cloud infrastructure fees to support the staging and development of our products, a \$2.1 million increase in professional services fees, a \$1.3 million increase in outsourced engineering services and a \$1.8 million increase in amortization expense.

In 2018, sales and marketing expenses increased by \$74.9 million, or 74%, compared to the same period last year. The increase was primarily attributable to a \$48.6 million increase in personnel costs, largely as a result of a 52% average increase in sales and marketing headcount as we continued to expand our sales efforts in the United States and internationally, a \$5.7 million increase in advertising expenses, \$4.7 million increase related to our annual developer conference SIGNAL, a \$3.5

million increase in the expenses related to brand awareness programs and \$2.3 million increase in credit card fees due to increased transaction volumes.

In 2018, general and administrative expenses increased by \$56.8 million, or 93%, compared to the same period last year. The increase was partially attributable to the non-recurrence of \$13.4 million release of previously accrued tax liability upon certain obligation settlements and estimate revisions. The remaining increase was primarily attributable to a \$18.8 million increase in personnel costs, largely as a result of a 49% average increase in general and administrative headcount to support the growth of our business domestically and internationally and a \$8.4 million increase in professional services fees primarily related to our operations as a public company and our on-going litigation matters, including legal settlements/accruals, and a \$4.7 million increase in professional expenses specifically related to our business acquisitions as described in Note 6 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

### Quarterly Results of Operations

The following tables set forth our unaudited quarterly statements of operations data for each of the eight quarters within the two years ended December 31, 2019, as well as the percentage that each line item represents of our revenue for each quarter presented. The information for each quarter has been prepared on a basis consistent with our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K, and reflect, in the opinion of management, all adjustments of a normal, recurring nature that are necessary for a fair presentation of the financial information contained in those statements. For the three months ended March 31, 2019 and subsequent quarterly periods in 2019, our revenue also includes the contribution from our Twilio SendGrid business since the date of our acquisition of this business on February 1, 2019. Our historical results are not necessarily indicative of the results that may be expected in the future. The following quarterly financial data should be read in conjunction with our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

#### Consolidated Statements of Operations:

	Three Months Ended							
	Mar 31, 2018	Jun 30, 2018	Sep 30, 2018	Dec 31, 2018	Mar 31, 2019	Jun 30, 2019	Sep 30, 2019	Dec 31, 2019
	(Unaudited, in thousands)							
Revenue	\$ 129,116	\$ 147,754	\$ 168,895	\$ 204,302	\$ 233,139	\$ 275,039	\$ 295,066	\$ 331,224
Cost of revenue <sup>(1)(2)</sup>	59,582	67,940	77,031	96,288	107,089	125,024	136,904	156,534
Gross profit	69,534	79,814	91,864	108,014	126,050	150,015	158,162	174,690
Operating expenses:								
Research and development <sup>(1)(2)</sup>	37,576	39,811	42,340	51,631	77,855	98,783	104,481	110,236
Sales and marketing <sup>(1)(2)</sup>	32,822	37,749	45,949	59,035	71,607	90,421	100,657	106,394
General and administrative <sup>(1)(2)</sup>	23,393	24,212	28,608	41,335	64,176	54,543	47,690	51,859
Total operating expenses	93,791	101,772	116,897	152,001	213,638	243,747	252,828	268,489
Loss from operations	(24,257)	(21,958)	(25,033)	(43,987)	(87,588)	(93,732)	(94,666)	(93,799)
Other income (expenses), net	665	(1,898)	(1,939)	(2,751)	(636)	(880)	4,377	4,708
Loss before benefit (provision) for income taxes	(23,592)	(23,856)	(26,972)	(46,738)	(88,224)	(94,612)	(90,289)	(89,091)
Benefit (provision) for income taxes	(137)	(150)	(84)	(420)	51,721	2,033	2,555	(1,156)
Net loss attributable to common stockholders	\$ (23,729)	\$ (24,006)	\$ (27,056)	\$ (47,158)	\$ (36,503)	\$ (92,579)	\$ (87,734)	\$ (90,247)

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

	Three Months Ended							
	Mar 31, 2018	Jun 30, 2018	Sep 30, 2018	Dec 31, 2018	Mar 31, 2019	Jun 30, 2019	Sep 30, 2019	Dec 31, 2019
	(Unaudited, in thousands)							
Cost of revenue	\$ 222	\$ 266	\$ 284	\$ 354	\$ 1,809	\$ 1,623	\$ 1,674	\$ 2,017
Research and development	7,872	9,749	10,879	13,777	25,339	33,701	34,348	32,624
Sales and marketing	3,859	5,049	5,246	9,462	11,749	14,564	16,143	18,430
General and administrative	5,587	5,942	6,332	8,393	19,427	20,852	16,103	13,915
Total	\$ 17,540	\$ 21,006	\$ 22,741	\$ 31,986	\$ 58,324	\$ 70,740	\$ 68,268	\$ 66,986

(2) Includes amortization of acquired intangibles as follows:

	Three Months Ended							
	Mar 31, 2018	Jun 30, 2018	Sep 30, 2018	Dec 31, 2018	Mar 31, 2019	Jun 30, 2019	Sep 30, 2019	Dec 31, 2019
	(Unaudited, in thousands)							
Cost of revenue	\$ 1,198	\$ 1,125	\$ 1,396	\$ 1,937	\$ 8,460	\$ 11,857	\$ 12,549	\$ 12,401
Research and development	22	—	—	—	—	—	—	—
Sales and marketing	220	206	390	301	5,003	7,329	7,322	7,886
General and administrative	20	20	20	315	153	62	121	(336)
Total	\$ 1,460	\$ 1,351	\$ 1,806	\$ 2,553	\$ 13,616	\$ 19,248	\$ 19,992	\$ 19,951

### Consolidated Statement of Operations, as a percentage of revenue \*\*

	Three Months Ended							
	Mar 31, 2018	Jun 30, 2018	Sep 30, 2018	Dec 31, 2018	Mar 31, 2019	Jun 30, 2019	Sep 30, 2019	Dec 31, 2019
	(Unaudited)							
Revenue	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Cost of revenue	46	46	46	47	46	45	46	47
Gross profit	54	54	54	53	54	55	54	53
Operating expenses:								
Research and development	29	27	25	25	33	36	35	33
Sales and marketing	25	26	27	29	31	33	34	32
General and administrative	18	16	17	20	28	20	16	16
Total operating expenses	73	69	69	74	92	89	86	81
Loss from operations	(19)	(15)	(15)	(22)	(38)	(34)	(32)	(28)
Other income (expenses), net	1	(1)	(1)	(1)	*	*	1	1
Loss before benefit (provision) for income taxes	(18)	(16)	(16)	(23)	(38)	(34)	(31)	(27)
Benefit (provision) for income taxes	*	*	*	*	22	1	1	*
Net loss attributable to common stockholders	(18)%	(16)%	(16)%	(23)%	(16)%	(34)%	(30)%	(27)%

\* Less than 0.5% of revenue.

\*\* Columns may not add up to 100% due to rounding.

	Three Months Ended							
	Mar 31, 2018	Jun 30, 2018	Sep 30, 2018	Dec 31, 2018	Mar 31, 2019	Jun 30, 2019	Sep 30, 2019	Dec 31, 2019
	(Unaudited, dollars in thousands)							
Number of Active Customer Accounts (as of end date of period) <sup>(1)(2)</sup>	53,985	57,350	61,153	64,286	154,797	161,869	172,092	179,000
Base Revenue (in thousands) <sup>(1)(3)</sup>	\$ 117,507	\$ 135,004	\$ 154,348	\$ 186,158	\$ 220,885	\$ 256,737	\$ 275,548	\$ 306,638
Base Revenue Growth Rate <sup>(1)</sup>	46%	54%	68%	77%	88%	90%	79%	65%
Dollar-Based Net Expansion Rate <sup>(4)</sup>	132%	137%	145%	147%	146%	140%	132%	124%



<sup>(1)</sup> For the three months ended March 31, 2019 and subsequent quarterly periods in 2019, Active Customer Accounts, Base Revenue and Base Revenue Growth Rate include the contribution from the Twilio SendGrid acquisition, which closed on February 1, 2019. Effective December 31, 2019, we round down the number of Active Customer Accounts to the nearest thousand.

<sup>(2)</sup> See the section titled "Key Business Metrics—Number of Active Customer Accounts."

<sup>(3)</sup> See the section titled "Key Business Metrics—Base Revenue."

<sup>(4)</sup> See the section titled "Key Business Metrics—Dollar-Based Net Expansion Rate."

### **Quarterly Trends in Revenue and Gross Margin**

Our quarterly revenue increased in each period presented primarily due to an increase in the usage of our products, the adoption of additional products by our existing customers, as evidenced by our Dollar-Based Net Expansion Rates and an increase in our new customers. For the three months ended March 31, 2019 and subsequent quarterly periods in 2019, our revenue also includes the contribution from our Twilio SendGrid business since the date of our acquisition of this business on February 1, 2019.

In the first three quarters of 2019, the gross margin stayed relatively consistent due to continued platform optimization, offset by continued international product usage. In the fourth quarter of 2019, international usage continued to increase at a higher rate than domestic usage, causing a slight decline in gross margin percentage.

In the first three quarters of 2018 the gross margin improved due to continued platform optimization, along with changes in our product and geographic mix. In the fourth quarter of 2018, an increasing mix of international product usage offset the continued platform optimization drove a modest decline in gross margin percentage.

### **Quarterly Trends in Operating Expenses**

Our operating expenses have generally increased sequentially on a dollar basis as a result of our growth, primarily related to our acquisition of SendGrid, increased personnel costs to support our expanded operations, our continued investment in our products, our operations as a public company and ongoing litigations.

In the first quarter of 2019, our general and administrative expenses included \$12.4 million of costs related to the acquisition of our Twilio SendGrid business on February 1, 2019. In the third quarter of 2019, our sales and marketing expenses included \$9.4 million of costs related to our SIGNAL customer and developer conference, which occurred in the third quarter of 2019.

In the third and fourth quarters of 2018, our sales and marketing expenses included \$1.5 million and \$6.8 million, respectively, of expenses related to our SIGNAL customer and developer conference. In the third quarter of 2018, our general and administrative expenses increased by \$1.5 million due to a preliminary settlement reached in an outstanding class action case. In the fourth quarter of 2018, our general and administrative expenses further increased by \$2.8 million due to the expenses related to our acquisition of Twilio SendGrid business.

### **Liquidity and Capital Resources**

To date, our principal sources of liquidity have been (i) the net proceeds of \$155.5 million, \$64.4 million, and \$979.0 million, net of underwriting discounts and offering expenses, from our initial public offering in June 2016 and our subsequent public offerings in October 2016 and June 2019, respectively; (ii) the net proceeds we received through private sales of equity securities; (iii) the net proceeds of approximately \$537.0 million, after deducting purchaser discounts and debt issuance costs paid by us, from issuance of the 0.25% convertible senior notes due 2023 (the "Notes"), as described in Note 9 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K; and (iv) the payments received from customers using our products. From our inception through March 31, 2016, we completed several rounds of equity financing through the sale of our convertible preferred stock for total net proceeds of \$237.1 million.

We believe that our cash, cash equivalents and marketable securities balances, as well as the cash flows generated by our operations will be sufficient to satisfy our anticipated cash needs for working capital and capital expenditures for at least the

next 12 months. However, our belief may prove to be incorrect, and we could utilize our available financial resources sooner than we currently expect. Our future capital requirements and the adequacy of available funds will depend on many factors, including those set forth in Part I, Item 1A, "Risk Factors." We may be required to seek additional equity or debt financing in order to meet these future capital requirements. 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 when desired, our business, results of operations and financial condition would be adversely affected.

### Cash Flows

The following table summarizes our cash flows:

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Cash provided by (used in) operating activities	\$ 14,048	\$ 7,983	\$ (3,255)
Cash used in investing activities	(1,285,792)	(139,419)	(226,748)
Cash provided by financing activities	1,020,145	515,819	36,437
Effect of exchange rate changes on cash, cash equivalents and restricted cash	—	163	74
Net (decrease) increase in cash, cash equivalents and restricted cash	<u>\$ (251,599)</u>	<u>\$ 384,546</u>	<u>\$ (193,492)</u>

### Cash Flows from Operating Activities

In 2019, cash provided by operating activities consisted primarily of our net loss of \$307.1 million adjusted for non-cash items, including \$264.3 million of stock-based compensation expense, \$55.7 million of tax benefit related to release of valuation allowance in connection with our acquisitions of other businesses, \$110.4 million of depreciation and amortization expense, \$23.7 million amortization of the debt discount and issuance costs related to our Notes, \$23.2 million amortization of our operating right-of-use asset and \$48.0 million of cumulative changes in operating assets and liabilities. With respect to changes in operating assets and liabilities, accounts receivable and prepaid expenses increased \$71.7 million primarily due to the timing of cash receipts from certain of our larger customers, pre-payments for cloud infrastructure fees and certain operating expenses. Accounts payable and other current liabilities increased \$63.4 million primarily due to increases in transaction volumes. Operating right-of-use liability decreased \$21.1 million due to payments made against our operating lease obligations. Other long-term assets increased \$18.0 million primarily due to an increase in the deferred sales commissions balances related to the growth of our business.

In 2018, cash provided by operating activities consisted primarily of our net loss of \$121.9 million adjusted for non-cash items, including \$93.3 million of stock-based compensation expense, \$26.1 million of depreciation and amortization expense, \$14.1 million amortization of the debt discount and issuance costs related to our Notes and \$14.8 million of cumulative changes in operating assets and liabilities. With respect to changes in operating assets and liabilities, accounts receivable and prepaid expenses increased \$67.0 million, which resulted primarily from the timing of cash receipts from certain of our larger customers, pre-payments for cloud infrastructure fees and certain operating expenses. Accounts payable and other current liabilities increased \$52.1 million and deferred revenue and customer deposits increased \$6.0 million primarily due to increases in transaction volumes.

In 2017, cash used in operating activities consisted primarily of our net loss of \$63.7 million adjusted for non-cash items, including \$49.6 million of stock-based compensation expense, \$18.8 million of depreciation and amortization expense and \$10.2 million of cumulative changes in operating assets and liabilities. With respect to changes in operating assets and liabilities, accounts receivable and prepaid expenses increased \$13.1 million, which resulted primarily from the timing of cash receipts from certain of our larger customers, pre-payments for cloud infrastructure fees and certain operating expenses. Accounts payable and other current liabilities increased \$2.1 million and deferred revenue increased \$3.6 million due to increases in transaction volumes, which were partially offset by the \$13.4 million release of tax liability upon certain obligation settlements and estimate revisions as discussed further in detail in Note 12 of our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

### Cash Flows from Investing Activities

In 2019, cash used in investing activities was \$1,285.8 million primarily consisting of \$1,341.3 million of purchases of marketable securities and other investments, net of maturities and sales, \$122.7 million of net cash paid to acquire other businesses as described in Note 6 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, \$21.9 million related to capitalized software development costs and \$45.4 million related to purchases of long-lived assets.

In 2018, cash used in investing activities was \$139.4 million, primarily consisting of \$84.2 million of purchases of marketable securities, net of maturities, \$30.6 million of net cash paid to acquire other businesses, as described in Note 6 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, and \$19.5 million related to capitalized software development costs.

In 2017, cash used in investing activities was \$226.7 million, primarily consisting of \$177.3 million of purchases of marketable securities, net of maturities, \$22.6 million of net cash paid to acquire other businesses, as described in Note 6 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, \$17.3 million related to capitalized software development costs and \$9.5 million related to purchases of long-lived assets.

### Cash Flows from Financing Activities

In 2019, cash provided by financing activities was \$1,020.1 million primarily consisting of \$979.1 million in net proceeds from our public equity offering, as described in Note 13 to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, and \$57.5 million proceeds from stock options exercised by our employees and shares issued under our employee stock purchase plan.

In 2018, cash provided by financing activities was \$515.8 million, primarily consisting of \$537.1 million net proceeds from our Notes, net of purchaser discounts and issuance costs paid in the period, and \$40.0 million proceeds from stock options exercised by our employees and shares issued under our employee stock purchase plan. This was partially offset by a \$58.5 million payment for capped call transactions.

In 2017, cash provided by financing activities was \$36.4 million, primarily consisting of \$37.6 million proceeds from stock options exercises by our employees and shares issued under our employee stock purchase plan.

### Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements and do not have any holdings in variable interest entities.

### Contractual Obligations and Other Commitments

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

	Less Than One Year	One to Three Years	Three to Five Years	Five Years or More	Total Payments
	(In thousands)				
Operating leases <sup>(1)</sup>	\$ 35,997	\$ 67,976	\$ 53,259	\$ 43,125	\$ 200,357
Finance leases <sup>(2)</sup>	7,586	6,992	1,896	581	17,055
Convertible senior notes <sup>(3)</sup>	—	—	549,999	—	549,999
Noncancelable purchase obligations <sup>(4)</sup>	62,444	53,668	3,750	—	119,862
<b>Total payments</b>	<b>\$ 106,027</b>	<b>\$ 128,636</b>	<b>\$ 608,904</b>	<b>\$ 43,706</b>	<b>\$ 887,273</b>

<sup>(1)</sup> Operating leases represent total future minimum rent payments under noncancelable operating lease agreements.

<sup>(2)</sup> Finance leases represent total future minimum payments under a noncancelable financing lease agreements.

<sup>(3)</sup> See Note 9 to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K for a discussion of our convertible senior notes.

<sup>(4)</sup> Noncancelable purchase obligations represent total future minimum payments under contracts with our cloud infrastructure provider, network service providers and other vendors. Purchase obligations exclude agreements that are cancelable without penalty. Unrecognized tax benefits are not included in the table above because any amounts expected to be settled in cash are not material.

### **Segment Information**

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

### **Critical Accounting Policies and Estimates**

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States of America. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates.

We believe that the accounting policies, assumptions and estimates associated with revenue recognition and business combinations have the greatest potential impact on our consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates.

#### ***Revenue Recognition***

Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. We enter into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. Revenue is recognized net of allowances for credits and any taxes collected from customers, which are subsequently remitted to governmental authorities.

Our revenue is primarily derived from usage-based fees earned from customers accessing our enterprise cloud computing services. Platform access is considered a monthly series comprising one performance obligation and usage-based fees are recognized as revenue in the period in which the usage occurs.

Subscription-based fees are derived from certain non-usage-based contracts, such as with the sales of short codes and customer support. Non-usage-based contracts revenue is recognized on a ratable basis over the contractual term which is generally one year or less.

Our arrangements do not contain general rights of return. However, credits may be issued on a case-by-case basis. Credits are accounted for as variable consideration, are estimated based on historical trends and are recorded against revenue. The contracts do not provide customers with the right to take possession of the software supporting the applications. Amounts that have been invoiced are recorded in accounts receivable and in revenue or deferred revenue depending on whether the revenue recognition criteria have been met.

#### ***Business Combinations***

Accounting for business combinations requires us to make significant estimates and assumptions, especially at the acquisition date with respect to tangible and intangible assets acquired and liabilities assumed. We use our best estimates and assumptions to accurately assign fair value to the tangible and intangible assets acquired and liabilities assumed at the acquisition date as well as the useful lives of those acquired intangible assets. Examples of critical estimates in valuing certain of the intangible assets and goodwill we have acquired include but are not limited to future expected cash flows from acquired developed technologies; the acquired company's trade name and existing customer relationships, as well as assumptions about the period of time the acquired trade name will continue to be used in our offerings; uncertain tax positions and tax related valuation allowances assumed; and discount rates. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

### **Recent Accounting Pronouncements Not Yet Adopted**

See Note 2(ac) to the consolidated financial statements included elsewhere in this Annual Report on Form 10-K for a discussion of recent accounting pronouncements not yet adopted.

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

We are exposed to certain market risks in the ordinary course of our business. These risks primarily include interest rate sensitivities as follows:

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

We had cash and cash equivalents of \$253.7 million and marketable securities of \$1,599.0 million as of December 31, 2019. Cash and cash equivalents consist of bank deposits and money market funds. Marketable securities consist primarily of U.S. treasury securities and high credit quality corporate debt securities. The cash and cash equivalents and marketable securities are held for working capital purposes. Such interest-earning instruments carry a degree of interest rate risk. To date, fluctuations in interest income have not been significant. The primary objective of our investment activities is to preserve principal while maximizing income without significantly increasing risk. We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure. Due to the short-term nature of our investments, we have not been exposed to, nor do we anticipate being exposed to, material risks due to changes in interest rates. A hypothetical 10% change in interest rates during any of the periods presented would not have had a material impact on our consolidated financial statements.

In May 2018, we issued \$550.0 million aggregate principal amount of Notes. The fair market value of the Notes is affected by our stock price. The fair value of the Notes will generally increase as our common stock price increases and will generally decrease as our common stock price declines in value. In addition, the fair market value of the Notes is exposed to interest rate risk. Generally, the fair market value of our fixed interest rate Notes will increase as interest rates fall and decrease as interest rates rise. Additionally, on our balance sheet we carry the Notes at face value less unamortized discount and debt issuance cost, and we present the fair value for required disclosure purposes only.

##### ***Currency Exchange Risks***

The functional currency of our foreign subsidiaries is the U.S. dollar. The local currencies of our foreign subsidiaries are the Australian dollar, the Bermuda dollar, the Brazilian real, British pound, the Colombian peso, Czech Republic koruna, the Euro, the Hong Kong dollar, the Indian Rupee, the Japanese yen, the Singapore dollar and the Swedish krona.

Our subsidiaries remeasure monetary assets and liabilities at period-end exchange rates, while non-monetary items are remeasured at historical rates. Revenue and expense accounts are remeasured at the average exchange rate in effect during the year. If there is a change in foreign currency exchange rates, the conversion of our foreign subsidiaries' financial statements into U.S. dollars would result in a realized gain or loss which is recorded in our consolidated statements of operations. We do not currently engage in any hedging activity to reduce our potential exposure to currency fluctuations, although we may choose to do so in the future. A hypothetical 10% change in foreign exchange rates during any of the periods presented would not have had a material impact on our consolidated financial statements.

#### **Item 8. Financial Statements and Supplementary Data**

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## Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors  
Twilio Inc.:

### *Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting*

We have audited the accompanying consolidated balance sheets of Twilio Inc. and subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019 based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

The Company acquired SendGrid, Inc. (SendGrid) during fiscal 2019, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, SendGrid's internal control over financial reporting associated with \$271.4 million, or 5%, of total assets and \$177.1 million, or 16%, of total revenues included in the consolidated financial statements of the Company as of and for the year ended December 31, 2019. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of SendGrid.

### *Change in Accounting Principle*

As discussed in Note 2(v) to the consolidated financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of Financial Accounting Standards Codification (ASC) Topic 842, *Leases*.

### *Basis for Opinions*

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

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

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

### *Definition and Limitations of Internal Control Over Financial Reporting*

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

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

### *Critical Audit Matters*

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

### *Testing of revenue recognition*

As discussed in Note 2(e) to the consolidated financial statements, and disclosed in the consolidated statement of operations, the Company has recorded \$1,134.5 million in revenues for the year ended December 31, 2019. The Company's revenue is derived from usage and non-usage based fees earned from customers accessing the Company's enterprise cloud computing services. The Company's revenue recognition process is highly automated and revenue is recorded within the Company's general ledger through reliance on customized and proprietary information technology (IT) systems.

We identified the testing of revenue recognition as a critical audit matter. This matter required especially subjective auditor judgment because of the number of information technology (IT) applications involved in the revenue recognition process. Auditor judgment was required in determining the nature and extent of audit evidence obtained over revenue. Involvement of IT professionals with specialized skills and knowledge was required to assist with the performance of certain procedures and determination of IT applications subject to testing.

The primary procedures we performed to address this critical audit matter included the following. We involved IT professionals with specialized skills and knowledge, who assisted in testing the various systems interacting with the Company's revenue recognition process. We tested certain internal controls over the Company's general information technology and application controls related to the systems utilized within the Company's revenue recognition process, focusing on the automated elements of the flow of transactions. We evaluated the Company's significant accounting policies related to revenue recognition. For a sample of customer agreements we tested the Company's identification and treatment of significant contract terms, including comparing the pricing reflected in the Company's revenue IT system to the contractually agreed upon pricing with the customer. For a sample of transactions we compared the amounts recognized for consistency with underlying documentation, including contracts with customers. We assessed the recorded revenue by comparing revenue to underlying cash receipts. We inspected credits issued subsequent to year end to assess the revenue recorded within the period.

In addition, we evaluated the overall sufficiency of audit evidence obtained over revenue.

### *Assessment of the acquisition date valuation of intangible assets related to a business combination*

As discussed in Note 6 to the consolidated financial statements, on February 1, 2019, the Company acquired the outstanding shares of SendGrid, Inc. by issuing shares of its Class A common stock worth approximately \$2.7 billion. As part

of the acquisition, the Company acquired \$483.0 million of intangible assets, including developed technology and customer relationships.

We identified the assessment of the acquisition date valuation of the developed technology and customer relationship intangible assets acquired as a critical audit matter. There was a high degree of subjectivity in evaluating the discount rate and forecasted revenue growth rates used to derive the fair value of the developed technology and customer relationship acquired intangible assets.

The primary procedures we performed to address the critical audit matter included the following. We tested certain internal controls over the Company's valuation process, including the Company's controls over the revenue growth rate forecasts and the assumptions used to develop the discount rate. We compared prior period forecasted revenue to prior period actual revenue to evaluate the Company's ability to forecast. We evaluated the Company's forecasted revenue growth rates used to value intangible assets by 1) comparing the growth forecast assumptions to peer companies; and 2) comparing forecasted growth rates to historical growth rates. We involved a valuation professional with specialized skills and knowledge, who assisted in testing by:

- Evaluating the discount rate used by the Company to value the developed technology and customer relationship intangible assets by comparing it against a discount rate range that was independently developed using publicly available data for comparable companies; and
- Developing an estimate of the fair value of the developed technology and customer relationship intangible assets acquired using the Company's cash flow forecast and independently developed discount rate, and comparing the results of our estimate of fair value to the Company's fair value estimate.

/s/ KPMG LLP

We have served as the Company's auditor since 2013.

Santa Clara, California  
March 2, 2020



**TWILIO INC.**  
**Consolidated Balance Sheets**

	As of December 31,	
	2019	2018
	(In thousands, except share and per share amounts)	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 253,660	\$ 487,215
Short-term marketable securities	1,599,033	261,128
Accounts receivable, net	154,067	97,712
Prepaid expenses and other current assets	54,571	26,893
Total current assets	2,061,331	872,948
Restricted cash	75	18,119
Property and equipment, net	141,256	63,534
Operating right-of-use asset	156,741	—
Intangible assets, net	460,849	27,558
Goodwill	2,296,784	38,165
Other long-term assets	33,480	8,386
Total assets	\$ 5,150,516	\$ 1,028,710
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 39,099	\$ 18,495
Accrued expenses and other current liabilities	147,681	96,343
Deferred revenue and customer deposits	26,362	22,972
Operating lease liability, current	27,156	—
Finance lease liability, current	6,924	—
Total current liabilities	247,222	137,810
Operating lease liability, noncurrent	139,200	—
Finance lease liability, noncurrent	8,746	—
Convertible senior notes, net	458,190	434,496
Other long-term liabilities	17,747	18,169
Total liabilities	871,105	590,475
Commitments and contingencies (Note 12)		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 100,000,000 shares authorized, none issued	—	—
Class A and Class B common stock, \$0.001 par value per share		
Authorized shares 1,100,000,000 as of December 31, 2019 and 2018;		
Issued and outstanding shares 138,412,799 and 100,080,228 as of		
December 31, 2019 and 2018	138	100
Additional paid-in capital	4,952,999	808,527
Accumulated other comprehensive income	5,086	1,282
Accumulated deficit	(678,812)	(371,674)
Total stockholders' equity	4,279,411	438,235
Total liabilities and stockholders' equity	\$ 5,150,516	\$ 1,028,710

See accompanying notes to consolidated financial statements.

**TWILIO INC.**  
**Consolidated Statements of Operations**

	Year Ended December 31,		
	2019	2018	2017
	(In thousands, except share and per share amounts)		
Revenue	\$ 1,134,468	\$ 650,067	\$ 399,020
Cost of revenue	525,551	300,841	182,895
Gross profit	608,917	349,226	216,125
Operating expenses:			
Research and development	391,355	171,358	120,739
Sales and marketing	369,079	175,555	100,669
General and administrative	218,268	117,548	60,791
Total operating expenses	978,702	464,461	282,199
Loss from operations	(369,785)	(115,235)	(66,074)
Other income (expense), net	7,569	(5,923)	3,071
Loss before provision for income taxes	(362,216)	(121,158)	(63,003)
Income tax benefit (provision)	55,153	(791)	(705)
Net loss attributable to common stockholders	\$ (307,063)	\$ (121,949)	\$ (63,708)
Net loss per share attributable to common stockholders, basic and diluted	\$ (2.36)	\$ (1.26)	\$ (0.70)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	130,083,046	97,130,339	91,224,607

See accompanying notes to consolidated financial statements.

**TWILIO INC.**  
**Consolidated Statements of Comprehensive Loss**

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Net loss	\$ (307,063)	\$ (121,949)	\$ (63,708)
Other comprehensive income (loss):			
Unrealized gain (loss) on marketable securities, net of tax	3,804	258	(598)
Foreign currency translation	—	(1,001)	2,623
Total other comprehensive income (loss), net of tax	3,804	(743)	2,025
Comprehensive loss attributable to common stockholders	\$ (303,259)	\$ (122,692)	\$ (61,683)

See accompanying notes to consolidated financial statements.

**TWILIO INC.**  
**Consolidated Statements of Stockholders' Equity**

	Common Stock Class A		Common Stock Class B		Additional Paid In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
(In thousands, except share amounts)								
<b>Balance as of December 31, 2016</b>	<b>49,996,410</b>	<b>\$ 51</b>	<b>37,252,138</b>	<b>\$ 36</b>	<b>\$ 516,090</b>	<b>\$ —</b>	<b>\$ (186,730)</b>	<b>\$ 329,447</b>
Net loss	—	—	—	—	—	—	(63,708)	(63,708)
Exercises of vested stock options	—	—	5,186,539	6	25,591	—	—	25,597
Vesting of early exercised stock options	—	—	—	—	378	—	—	378
Vesting of restricted stock units	360,116	—	351,255	—	—	—	—	—
Value of equity awards withheld for tax liability	—	—	(22,538)	—	(678)	—	—	(678)
Exercises of unvested stock options	—	—	22,510	—	—	—	—	—
Conversion of shares of Class B common stock into shares of Class A common stock	18,710,499	18	(18,710,499)	(18)	—	—	—	—
Shares issued under ESPP	794,142	1	—	—	11,917	—	—	11,918
Donated common stock	45,383	—	—	—	1,172	—	—	1,172
Repurchases of unvested stock options	—	—	(16,159)	—	(100)	—	—	(100)
Unrealized loss on marketable securities	—	—	—	—	—	(598)	—	(598)
Foreign currency translation	—	—	—	—	—	2,623	—	2,623
Stock-based compensation	—	—	—	—	53,795	—	—	53,795
<b>Balance as of December 31, 2017</b>	<b>69,906,550</b>	<b>70</b>	<b>24,063,246</b>	<b>24</b>	<b>608,165</b>	<b>2,025</b>	<b>(250,438)</b>	<b>359,846</b>
Net loss	—	—	—	—	—	—	(121,949)	(121,949)
Adjustment to opening retained earnings due to adoption of ASC 606	—	—	—	—	—	—	713	713
Exercises of vested stock options	—	—	3,625,991	4	29,732	—	—	29,736
Vesting of early exercised stock options	—	—	—	—	36	—	—	36
Vesting of restricted stock units	1,970,565	2	172,211	—	—	—	—	2
Value of equity awards withheld for tax liability	(25,932)	—	(22,044)	—	(2,654)	—	—	(2,654)
Exercises of unvested stock options	—	—	2,041	—	—	—	—	—
Conversion of shares of Class B common stock into shares of Class A common stock	8,530,980	8	(8,530,980)	(8)	—	—	—	—
Shares issued under ESPP	325,262	—	—	—	10,122	—	—	10,122
Issuance of debt conversion option	—	—	—	—	119,435	—	—	119,435
Debt conversion option issuance costs	—	—	—	—	(2,819)	—	—	(2,819)
Capped call option issuance costs	—	—	—	—	(58,465)	—	—	(58,465)
Donated common stock	62,338	—	—	—	5,996	—	—	5,996
Unrealized gain on marketable securities	—	—	—	—	—	258	—	258
Foreign currency translation	—	—	—	—	—	(1,001)	—	(1,001)
Stock-based compensation	—	—	—	—	98,979	—	—	98,979
<b>Balance as of December 31, 2018</b>	<b>80,769,763</b>	<b>80</b>	<b>19,310,465</b>	<b>20</b>	<b>808,527</b>	<b>1,282</b>	<b>(371,674)</b>	<b>438,235</b>
Net loss	—	—	—	—	—	—	(307,063)	(307,063)
Exercises of vested stock options	1,466,813	1	2,154,053	2	37,739	—	—	37,742
Recapitalization of a subsidiary	—	—	—	—	75	—	(75)	—
Vesting of early exercised stock options	—	—	—	—	21	—	—	21
Vesting of restricted stock units	2,775,788	2	117,331	1	—	—	—	3
Value of equity awards withheld for tax liability	(23,543)	—	(22,095)	—	(5,412)	—	—	(5,412)
Conversion of shares of Class B common stock into shares of Class A common stock	10,029,127	9	(10,029,127)	(9)	—	—	—	—
Shares issued under ESPP	244,628	—	—	—	19,738	—	—	19,738
Issuance of common stock in connection with a follow-on public offering, net of underwriter discounts	8,064,515	8	—	—	979,992	—	—	980,000
Costs related to the follow-on public offering	—	—	—	—	(953)	—	—	(953)
Shares issued in acquisition	23,555,081	24	—	—	2,658,874	—	—	2,658,898
Value of equity awards assumed in acquisition	—	—	—	—	182,554	—	—	182,554
Unrealized gain on marketable securities	—	—	—	—	—	3,804	—	3,804
Stock-based compensation	—	—	—	—	271,844	—	—	271,844
<b>Balance as of December 31, 2019</b>	<b>126,882,172</b>	<b>\$ 124</b>	<b>11,530,627</b>	<b>\$ 14</b>	<b>\$4,952,999</b>	<b>\$ 5,086</b>	<b>\$ (678,812)</b>	<b>\$ 4,279,411</b>

See accompanying notes to consolidated financial statements.

**TWILIO INC.**  
**Consolidated Statements of Cash Flows**

	Year Ended December 31,		
	2019	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:			
	(In thousands)		
Net loss	\$ (307,063)	\$ (121,949)	\$ (63,708)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	110,430	26,095	18,764
Non-cash reduction to the right-of-use asset	23,193	—	—
Net amortization of investment premium and discount	(4,501)	(1,496)	262
Amortization of debt discount and issuance costs	23,696	14,053	—
Stock-based compensation	264,318	93,273	49,619
Tax benefit related to release of valuation allowance	(55,745)	—	—
Other adjustments	7,676	12,824	2,018
Changes in operating assets and liabilities:			
Accounts receivable	(51,357)	(58,234)	(15,280)
Prepaid expenses and other current assets	(20,316)	(8,739)	2,214
Other long-term assets	(18,021)	(5,305)	(1,984)
Accounts payable	17,255	6,980	5,433
Accrued expenses and other current liabilities	46,154	45,120	(3,312)
Deferred revenue and customer deposits	2,968	5,958	3,560
Operating right of use liability	(21,138)	—	—
Long-term liabilities	(3,501)	(597)	(841)
Net cash provided by (used in) operating activities	<u>14,048</u>	<u>7,983</u>	<u>(3,255)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:			
Acquisitions, net of cash acquired	122,749	(30,574)	(22,621)
Purchases of marketable securities and other investments	(2,038,422)	(279,687)	(293,186)
Proceeds from sales and maturities of marketable securities	697,171	195,497	115,877
Capitalized software development costs	(21,922)	(19,546)	(17,280)
Purchases of long-lived assets	(45,368)	(5,109)	(9,538)
Net cash used in investing activities	<u>(1,285,792)</u>	<u>(139,419)</u>	<u>(226,748)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from a public offering, net of underwriting discount	980,000	—	—
Payments of costs related to public offerings	(877)	—	(430)
Proceeds from issuance of convertible senior notes	—	550,000	—
Payment of debt issuance costs	—	(12,941)	—
Purchase of capped call	—	(58,465)	—
Principal payments on notes payable	(5,400)	—	—
Principal payments on finance leases	(5,646)	—	—
Proceeds from exercises of stock options and shares issued in ESPP	57,480	39,879	37,645
Value of equity awards withheld for tax liabilities	(5,412)	(2,654)	(678)
Repurchases of common stock	—	—	(100)
Net cash provided by financing activities	<u>1,020,145</u>	<u>515,819</u>	<u>36,437</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	—	163	74
NET (DECREASE) INCREASE IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH	<u>(251,599)</u>	<u>384,546</u>	<u>(193,492)</u>
CASH, CASH EQUIVALENTS AND RESTRICTED CASH—Beginning of period	505,334	120,788	314,280
CASH, CASH EQUIVALENTS AND RESTRICTED CASH—End of period	<u>\$ 253,735</u>	<u>\$ 505,334</u>	<u>\$ 120,788</u>
Cash paid for income taxes, net	<u>\$ 1,368</u>	<u>\$ 564</u>	<u>\$ 605</u>
Cash paid for interest	<u>\$ 2,290</u>	<u>\$ 741</u>	<u>\$ —</u>
NON-CASH INVESTING AND FINANCING ACTIVITIES:			
Finance lease right-of-use assets assumed in a business combination	<u>\$ 14,173</u>	<u>\$ —</u>	<u>\$ —</u>
Purchases of property and equipment through finance leases	<u>\$ 5,848</u>	<u>\$ 2,478</u>	<u>\$ —</u>
Acquisition holdback	<u>\$ 7,980</u>	<u>\$ 2,290</u>	<u>\$ —</u>
Value of common stock issued and stock awards assumed in acquisition	<u>\$ 2,841,452</u>	<u>\$ —</u>	<u>\$ —</u>
Stock-based compensation capitalized in software development costs	<u>\$ 7,777</u>	<u>\$ 5,706</u>	<u>\$ 4,176</u>

See accompanying notes to consolidated financial statements.

**TWILIO INC.**  
**Notes to Consolidated Financial Statements**

## **1. Organization and Description of Business**

Twilio Inc. (the “Company”) was incorporated in the state of Delaware on March 13, 2008. The Company is the leader in the Cloud Communications Platform category and enables developers to build, scale and operate real-time communications within their software applications via simple-to-use Application Programming Interfaces (“API”). The power, flexibility, and reliability offered by the Company’s software building blocks empower entities of virtually every shape and size to build world-class engagement into their customer experience.

The Company’s headquarters are located in San Francisco, California, and the Company has subsidiaries in Australia, Bermuda, Brazil, Colombia, Czech Republic, Estonia, France, Germany, Hong Kong, Ireland, India, Japan, the Netherlands, Singapore, Spain, Sweden, United Kingdom and the United States.

## **2. Summary of Significant Accounting Policies**

### **(a) Basis of Presentation**

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America (“U.S. GAAP”).

### **(b) Principles of Consolidation**

The consolidated financial statements include the Company and its wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated.

### **(c) Use of Estimates**

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates are used for, but not limited to, revenue allowances and sales credit reserves; recoverability of long-lived and intangible assets; capitalization and useful life of the Company’s capitalized internal-use software development costs; fair value of acquired intangible assets and goodwill; accruals and contingencies. Estimates are based on historical experience and on various assumptions that the Company believes are reasonable under current circumstances. However, future events are subject to change and best estimates and judgments may require further adjustments, therefore, actual results could differ materially from those estimates. Management periodically evaluates such estimates and they are adjusted prospectively based upon such periodic evaluation.

### **(d) Concentration of Credit Risk**

Financial instruments that potentially expose the Company to a concentration of credit risk consist primarily of cash, cash equivalents, marketable securities and accounts receivable. The Company maintains cash, cash equivalents and marketable securities with financial institutions that management believes are financially sound and have minimal credit risk exposure although the balances will exceed insured limits.

The Company sells its services to a wide variety of customers. If the financial condition or results of operations of any significant customers deteriorate substantially, operating results could be adversely affected. To reduce credit risk, management performs credit evaluations of the financial condition of significant customers. The Company does not require collateral from its credit customers and maintains reserves for estimated credit losses on customer accounts when considered necessary. Actual credit losses may differ from the Company’s estimates. During the years ended December 31, 2019, 2018 and 2017, no customer organization accounted for more than 10% of the Company’s total revenue.

As of December 31, 2019 and 2018, no customer organization represented more than 10% of the Company’s gross accounts receivable.

**(e) Revenue Recognition**

Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration the Company expects to receive in exchange for those products or services. The Company enters into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. Revenue is recognized net of allowances for credits and any taxes collected from customers, which are subsequently remitted to governmental authorities.

The Company determines revenue recognition through the following steps:

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

*Nature of Products and Services*

The Company's revenue is primarily derived from usage-based fees earned from customers accessing the Company's enterprise cloud computing services. Platform access is considered a monthly series comprising of one performance obligation and usage-based fees are recognized as revenue in the period in which the usage occurs. In the years ended December 31, 2019, 2018 and 2017, the revenue from usage-based fees represented 75%, 84% and 83% of total revenue, respectively.

Subscription-based fees are derived from certain non-usage-based contracts, such as with the sales of short codes and customer support. Non-usage-based contracts revenue is recognized on a ratable basis over the contractual term which is generally one year or less. In the years ended December 31, 2019, 2018 and 2017, the revenue from non-usage-based fees represented 25%, 16%, and 17% of total revenue, respectively.

The Company applied the optional exemption of not disclosing the transaction price allocated to the remaining performance obligations for its usage-based contracts and contracts with original duration of one year or less. The majority of the Company's contracts have a duration of one year or less.

No significant judgments are required in determining whether products and services are considered distinct performance obligations and should be accounted for separately versus together, or to determine the stand-alone selling price ("SSP").

The Company's arrangements do not contain general rights of return. However, credits may be issued on a case-by-case basis. The contracts do not provide customers with the right to take possession of the software supporting the applications. Amounts that have been invoiced are recorded in accounts receivable and in revenue or deferred revenue depending on whether the revenue recognition criteria have been met.

**(f) Deferred Revenue and Customer Deposits**

Deferred revenue is recorded when cash payments are received in advance of future usage on non-cancelable contracts. Customer refundable prepayments are recorded as customer deposits. As of December 31, 2019 and 2018, the Company recorded \$26.4 million and \$23.0 million as its deferred revenue and customer deposits, respectively. During the years ended December 31, 2019 and 2018, the Company recognized \$18.7 million and \$10.6 million of revenue, respectively, that was included in the deferred revenue and customer deposits balance as of the end of the prior year.

**(g) Deferred Sales Commissions**

The Company records an asset for the incremental costs of obtaining a contract with a customer, for example, sales commissions that are earned upon execution of contracts. The Company uses the portfolio of data method to determine the estimated period of benefit of capitalized commissions which is determined to be five years. Amortization expense related to these capitalized costs related to initial contracts, upsells and renewals, is recognized on a straight line basis over the estimated period of benefit of the capitalized commissions.

Total net capitalized costs as of December 31, 2019 and 2018 were \$30.4 million and \$9.4 million, respectively, and are included in prepaid expenses and other current and long-term assets in the accompanying consolidated balance sheets. Amortization of these assets was \$4.5 million and \$1.4 million in the years ended December 31, 2019 and 2018, respectively, and is included in sales and marketing expense in the accompanying consolidated statements of operations.

**(h) Cost of Revenue**

Cost of revenue consists primarily of costs of communications services purchased from network service providers. Cost of revenue also includes fees to support the Company's cloud infrastructure, direct costs of personnel, such as salaries and stock-based compensation for the customer care and support services employees, and non-personnel costs, such as amortization of capitalized internal-use software development costs and amortization of acquired intangibles.

**(i) Research and Development Expense**

Research and development expenses consist primarily of personnel costs, cloud infrastructure fees for staging and development, outsourced engineering services, amortization of capitalized internal-use software development costs and an allocation of general overhead expenses. The Company capitalizes the portion of its software development costs that meets the criteria for capitalization.

**(j) Internal-Use Software Development Costs**

Certain costs of platform and other software applications developed for internal use are capitalized. The Company capitalizes qualifying internal-use software development costs that are incurred during the application development stage. Capitalization of costs begins when two criteria are met: (i) the preliminary project stage is completed and (ii) it is probable that the software will be completed and used for its intended function. Capitalization ceases when the software is substantially complete and ready for its intended use, including the completion of all significant testing. The Company also capitalizes costs related to specific upgrades and enhancements when it is probable the expenditures will result in additional functionality. Costs incurred for maintenance, minor upgrades and enhancements are expensed. Costs related to preliminary project activities and post-implementation operating activities are also expensed as incurred.

Capitalized costs of platform and other software applications are included in property and equipment. These costs are amortized over the estimated useful life of the software on a straight-line basis over three years. Management evaluates the useful life of these assets on an annual basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets. The amortization of costs related to the platform applications is included in cost of revenue, while the amortization of costs related to other software applications developed for internal use is included in operating expenses.

**(k) Advertising Costs**

Advertising costs are expensed as incurred and were \$27.0 million, \$10.6 million and \$4.9 million in the years ended December 31, 2019, 2018, and 2017, respectively. Advertising costs are included in sales and marketing expenses in the accompanying consolidated statements of operations.

**(l) Stock-Based Compensation**

All stock-based compensation to employees, including the purchase rights issued under the Company's 2016 Employee Stock Purchase Plan (the "ESPP"), is measured on the grant date based on the fair value of the awards on the date of grant. This cost is recognized as an expense following straight-line attribution method over the requisite service period. The Company uses the Black-Scholes option pricing model to measure the fair value of its stock options and the purchase rights issued under the ESPP. The fair value of the restricted stock units is determined using the fair value of the Company's Class A common stock on the date of grant and recognized as an expense following straight-line attribution method over the requisite service period. Prior to adoption of ASU 2016-09, the stock-based compensation was recorded net of estimated forfeitures.

Compensation expense for stock options granted to nonemployees is calculated using the Black-Scholes option pricing model and is recognized in expense over the service period.

The Black-Scholes option pricing model requires the use of complex assumptions, which determine the fair value of stock-based awards. These assumptions include:



- *Fair value of the common stock.* The Company uses the market closing price of its Class A common stock, as reported on the New York Stock Exchange, for the fair value.
- *Expected term.* The expected term represents the period that the stock-based awards are expected to be outstanding. The Company uses the simplified calculation of expected term, as the Company does not have sufficient historical data to use any other method to estimate expected term;
- *Expected volatility.* The expected volatility is derived from an average of the historical volatilities of the common stock of the Company and several other entities with characteristics similar to those of the Company, such as the size and operational and economic similarities to the Company's principal business operations;
- *Risk-free interest rate.* The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the expected term of the stock-based awards; and
- *Expected dividend.* The expected dividend is assumed to be zero as the Company has never paid dividends and has no current plans to pay any dividends on its common stock.

If any of the assumptions used in the Black-Scholes model changes, stock-based compensation for future options may differ materially compared to that associated with previous grants.

**(m) Income Taxes**

The Company accounts for income taxes in accordance with authoritative guidance which requires the use of the asset and liability approach. Deferred tax assets and liabilities are recognized for future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, as well as net operating loss and tax credit carry-forwards. Deferred tax amounts are determined by using the enacted tax rates expected to be in effect when the temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance reduces the deferred tax assets to the amount that is more likely than not to be realized.

The Company recognizes the effect of uncertain income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

The Company records interest and penalties related to uncertain tax positions in the provision for income taxes in the consolidated statements of operations.

**(n) Foreign Currency Translation**

The functional currency of the Company's foreign subsidiaries is generally the U.S. dollar. Accordingly, the subsidiaries remeasure monetary assets and liabilities at period-end exchange rates, while non-monetary items are remeasured at historical rates. Revenue and expense accounts are remeasured at the average exchange rate in effect during the year. Remeasurement adjustments are recognized in the consolidated statements of operations as other income or expense in the year of occurrence. Foreign currency transaction gains and losses were insignificant for all periods presented.

For those entities where the functional currency is a foreign currency, adjustments resulting from translating the financial statements into U.S. dollars are recorded as a component of accumulated other comprehensive income (loss) in stockholders' equity. Monetary assets and liabilities denominated in a foreign currency are translated into US dollars at the exchange rate on the balance sheet date. Revenue and expenses are translated at the weighted average exchange rates during the period. Equity transactions are translated using historical exchange rates. Foreign currency transaction gains and losses are included in other income (expense), net in the consolidated statements of operations.

**(o) Comprehensive Income (Loss)**

Comprehensive income (loss) refers to net income (loss) and other revenue, expenses, gains and losses that, under generally accepted accounting principles, are recorded as an element of stockholders' equity but are excluded from the calculation of net income (loss).

**(p) Net Loss Per Share Attributable to Common Stockholders**

The Company calculates its basic and diluted net loss per share attributable to common stockholders in conformity with the two-class method required for companies with participating securities. All series of convertible preferred stock are considered to be participating securities as the holders of the preferred stock are entitled to receive a non-cumulative dividend on a pro rata pari passu basis in the event that a dividend is declared or paid on common stock. Shares of common stock issued upon early exercise of stock options that are subject to repurchase are also considered to be participating securities, because holders of such shares have non-forfeitable dividend rights in the event a dividend is declared or paid on common stock. Under the two-class method, in periods when the Company has net income, net income attributable to common stockholders is determined by allocating undistributed earnings, calculated as net income less current period convertible preferred stock non-cumulative dividends, between common stock and the convertible preferred stock. In computing diluted net income attributable to common stockholders, undistributed earnings are re-allocated to reflect the potential impact of dilutive securities. The Company's basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period. The diluted net loss per share attributable to common stockholders is computed by giving effect to all potential dilutive common stock equivalents outstanding for the period. The dilutive effect of these potential common shares is reflected in diluted earnings per share by application of the treasury stock method. For purposes of this calculation, convertible preferred stock, options to purchase common stock, unvested restricted stock units, common stock issued subject to future vesting, any shares of stock committed under the ESPP, any shares of stock held in escrow and any shares of stock reserved for future donations are considered common stock equivalents but have been excluded from the calculation of diluted net loss per share attributable to common stockholders as their effect is antidilutive.

Class A and Class B common stock are the only outstanding equity of the Company. The rights of the holders of Class A and Class B common stock are identical, except with respect to voting and conversion. Each share of Class A common stock is entitled to one vote per share and each share of Class B common stock is entitled to 10 votes per share. Shares of Class B common stock may be converted into Class A common stock at any time at the option of the stockholder on a one-for-one basis, and are automatically converted into Class A common stock upon sale or transfer, subject to certain limited exceptions. Shares of Class A common stock are not convertible.

**(q) Cash and Cash Equivalents**

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. Cash equivalents consist of cash deposited into money market funds and reverse repurchase agreements. All credit and debit card transactions that process as of the last day of each month and settle within the first few days of the subsequent month are also classified as cash and cash equivalents as of the end of the month in which they were processed.

**(r) Restricted Cash**

Restricted cash consists of cash deposited into a savings account with a financial institution as collateral for the Company's obligations under certain vendor and facility leases contracts.

**(s) Accounts Receivable and Allowance for Doubtful Accounts**

Accounts receivable are recorded net of the allowance for doubtful accounts. The allowance for doubtful accounts is estimated based on the Company's assessment of its ability to collect on customer accounts receivable. The Company regularly reviews the allowance by considering certain factors such as historical experience, credit quality, age of accounts receivable balances and other known conditions that may affect a customer's ability to pay. In cases where the Company is aware of circumstances that may impair a specific customer's ability to meet their financial obligations, a specific allowance is recorded against amounts due from the customer which reduces the net recognized receivable to the amount the Company reasonably believe will be collected. The Company writes-off accounts receivable against the allowance when a determination is made that the balance is uncollectible and collection of the receivable is no longer being actively pursued. The allowance for doubtful accounts was \$6.3 million and \$4.9 million as of December 31, 2019 and 2018, respectively.

**(t) Costs Related to Public Offerings**

Costs related to the public offerings, which consist of direct incremental legal, printing and accounting fees, are deferred until the offering is completed. Upon completion of the offering, these costs are offset against the offering proceeds within the consolidated statements of stockholders' equity. In the year ended December 31, 2019, the Company recorded in its consolidated statement of stockholders' equity \$1.0 million in total offering costs.

**(u) Property and Equipment**

Property and equipment, both owned and under finance leases, is stated at cost less accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful life of the related asset. Maintenance and repairs are charged to expenses as incurred.

The useful lives of property and equipment are as follows:

Capitalized internal-use software development costs	3 years
Data center equipment	2 - 4 years
Office equipment	3 years
Furniture and fixtures	5 years
Software	3 years
Assets under financing lease	5 years or remaining lease term
Leasehold improvements	5 years or remaining lease term

**(v) Leases**

In February 2016, the Financial Accounting Standards Board (“FASB”) issued ASU 2016-02, “*Leases (Topic 842)*”, which was further clarified in July 2018 by ASU 2018-10, “*Codification Improvements to Topic 842, Leases*”, and ASU 2018-11, “*Leases-Targeted Improvements*”. ASU 2018-10 provides narrow amendments to clarify how to apply certain aspects of the new lease standard. ASU 2018-11 addresses implementation issues related to the new lease standard. The standard became effective for the Company on January 1, 2019. Under this standard, lessees are required to recognize in the balance sheet the right-of-use (“ROU”) assets and lease liabilities that arise from operating leases. The Company adopted the standard using the optional alternative method on a prospective basis with an effective date as of the beginning of the Company’s fiscal year, January 1, 2019, and applied it to the operating leases that existed on that date. Prior year comparative financial information was not recast under the new standard and continues to be presented under ASC 840. The Company elected to utilize the package of practical expedients available for expired or existing contracts which allowed the Company to carryforward historical assessments of (a) whether contracts are or contain leases, (b) lease classification, and (c) initial direct costs. The Company elected the use of hindsight practical expedient in determining the lease term and assessing the likelihood that lease renewal, termination or purchase option will be exercised. The Company also elected to apply the short-term lease exception for all leases. Under the short-term lease exception, the Company will not recognize ROU assets or lease liabilities for leases that, at the acquisition date, have a remaining lease term of 12 months or less.

As a result of implementing this guidance, the Company recognized a \$123.5 million net operating ROU asset and a \$132.0 million operating lease liability in its consolidated balance sheet as of January 1, 2019. The ROU asset was presented net of deferred rent of \$9.0 million as of January 1, 2019, in the accompanying consolidated balance sheet. In addition, on February 1, 2019, the Company acquired through its business combination with SendGrid approximately \$33.7 million in operating ROU assets, \$32.6 million in operating lease liability, \$14.2 million in finance ROU assets and \$13.6 million in finance lease liability.

The Company measured the lease liability at the present value of the future lease payments as of January 1, 2019. The Company used its incremental borrowing rate to discount the lease payments. The Company derived the discount rate, adjusted for differences in the term and payment patterns, from the information available at the adoption date. The right-of-use asset is valued at the amount of the lease liability adjusted for the remaining December 31, 2018, balance of unamortized lease incentives, prepaid rent and deferred rent. The lease liability is subsequently measured at the present value of unpaid future lease payments as of the reporting date with a corresponding adjustment to the right-of-use asset. Absent a lease modification, the Company will continue to utilize the January 1, 2019, incremental borrowing rate.

The Company recognizes operating lease costs on a straight-line basis and presents these costs as operating expenses within the consolidated statements of operations and comprehensive loss. Within the consolidated statements of cash flows the Company presents the lease payments made on the operating leases within the cash flows from operations and principal payments made on the finance leases as part of financing activities.

The financial results for the year ended December 31, 2019, are presented under the new standard, while the comparative periods presented are not adjusted and continue to be reported in accordance with the Company’s historical accounting policy.

See Note 5, “Right-of-use Assets and Lease Liabilities” for further information.

**(w) Intangible Assets**

Intangible assets recorded by the Company are costs directly associated with securing legal registration of patents and trademarks, acquiring domain names and the fair value of identifiable intangible assets acquired in business combinations.

Intangible assets with determinable economic lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful life of each asset on a straight-line basis. The Company determines the useful lives of identifiable intangible assets after considering the specific facts and circumstances related to each intangible asset. Factors the Company considers when determining useful lives include the contractual term of any agreement related to the asset, the historical performance of the asset, the Company's long-term strategy for using the asset, any laws or other local regulations which could impact the useful life of the asset and other economic factors, including competition and specific market conditions. Intangible assets without determinable economic lives are carried at cost, not amortized and reviewed for impairment at least annually.

The useful lives of the intangible assets are as follows:

Developed technology	3 - 7 years
Customer relationships	2 - 8 years
Supplier relationships	2 - 5 years
Trade names	5 years
Patents	20 years
Telecommunication licenses	Indefinite
Trademarks	Indefinite
Domain names	Indefinite

**(x) Goodwill**

Goodwill represents the excess of the aggregate purchase price over the fair value of net identifiable assets acquired in a business combination. Goodwill is not amortized and is tested for impairment at least annually or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The Company has determined that it operates as one reporting unit and has selected November 30 as the date to perform its annual impairment test. In the valuation of goodwill, management must make assumptions regarding estimated future cash flows to be derived from the Company's business. If these estimates or their related assumptions change in the future, the Company may be required to record impairment for these assets.

The Company has the option to first perform a qualitative assessment to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying amount. However, the Company may elect to bypass the qualitative assessment and proceed directly to the quantitative impairment tests. The first step of the impairment test involves comparing the fair value of the reporting unit to its net book value, including goodwill. If the net book value exceeds its fair value, the Company would perform the second step of the goodwill impairment test to determine the amount of the impairment loss.

In January 2017, the FASB issued ASU 2017-04, “Simplifying the Test for Goodwill Impairment”, which removes the second step of the goodwill impairment test that required a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value. The impairment is limited to the carrying amount of goodwill. This guidance is applied prospectively. The Company early adopted this guidance effective April 1, 2019, which did not have a material impact to its consolidated financial statements.

No goodwill impairment charges have been recorded for any period presented.

**(y) Impairment of Long-Lived Assets**

The Company evaluates its long-lived assets, including property and equipment and intangible assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Recoverability of assets held and used is measured by a comparison of the carrying amount of an asset or an asset group to estimated undiscounted future net cash flows expected to be generated by the asset or asset group. If such evaluation indicates that the carrying amount of the asset or the asset group is not recoverable, any impairment loss would be equal to the amount the carrying value exceeds the fair value. There was no impairment during the years ended December 31, 2019, 2018 and 2017.

**(z) Business Combinations**

The Company recognizes identifiable assets acquired and liabilities assumed at their acquisition date fair values. Goodwill is measured as the excess of the consideration transferred over the fair value of assets acquired and liabilities assumed on the acquisition date. While the Company uses its best estimates and assumptions as part of the purchase price allocation process to accurately value assets acquired and liabilities assumed, these estimates are inherently uncertain and subject to refinement. The authoritative guidance allows a measurement period of up to one year from the date of acquisition to make adjustments to the preliminary allocation of the purchase price. As a result, during the measurement period the Company may record adjustments to the fair values of assets acquired and liabilities assumed, with the corresponding offset to goodwill to the extent that it identifies adjustments to the preliminary purchase price allocation. Upon conclusion of the measurement period or final determination of the values of the assets acquired and liabilities assumed, whichever comes first, any subsequent adjustments will be recorded to the consolidated statement of operations.

**(aa) Segment Information**

The Company's Chief Executive Officer is the chief operating decision maker, who reviews the Company's financial information presented on a consolidated basis for purposes of allocating resources and evaluating the Company's financial performance. Accordingly, the Company has determined that it operates in a single reporting segment.

**(ab) Fair Value of Financial Instruments**

The Company applies fair value accounting for all financial instruments on a recurring basis. The Company's financial instruments, which include cash, cash equivalents, accounts receivable and accounts payable are recorded at their carrying amounts, which approximate their fair values due to their short-term nature. Restricted cash is long-term in nature and consists of cash in a savings account, hence its carrying amount approximates its fair value. Marketable securities consist of U.S. treasury securities, high credit quality corporate debt securities and reverse repurchase agreements. All marketable securities are considered to be available-for-sale and recorded at their estimated fair values. Unrealized gains and losses for available-for-sale securities are recorded in other comprehensive income (loss). In valuing these items, the Company uses inputs and assumptions that market participants would use to determine their fair value, utilizing valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value of the convertible senior notes due 2023 (the "Notes") is determined based on the closing price for the Notes on the last trading day of the reporting period and is considered as Level 2 in the fair value hierarchy.

Impairments are considered to be other than temporary if they are related to deterioration in credit risk or if it is likely that the security will be sold before the recovery of its cost basis. Realized gains and losses and declines in value deemed to be other than temporary are determined based on the specific identification method and are reported in other income (expense), net.

The accounting guidance for fair value provides a framework for measuring fair value, clarifies the definition of fair value, and expands disclosures regarding fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The accounting guidance establishes a three-tiered hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value as follows:

- Level 1 Inputs: Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.
- Level 2 Inputs: Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.
- Level 3 Inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at measurement date.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

In August 2018, the FASB issued ASU 2018-13, "*Fair Value Measurement (Topic 820) Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*". The amendments under ASU 2018-13 remove, add and modify certain disclosure requirements on fair value measurements. The amendments are effective for interim and annual periods beginning after December 15, 2019. The Company early adopted this guidance effective April 1, 2019, which did not have a material impact to its consolidated financial statements.

**(ac) Recently Issued Accounting Guidance, Not yet Adopted**

In December 2019, the FASB issued ASU 2019-12, "*Simplifying the Accounting for Income Taxes*" which simplifies the accounting for income taxes by removing certain exceptions to the general principles for income taxes. ASU 2019-12 will be effective for the Company beginning January 1, 2021, and early adoption is permitted. The Company does not expect the adoption of this guidance to have a material impact on its consolidated financial statements

In August 2018, the FASB issued ASU 2018-15, "*Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract*". This standard aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The standard is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. The Company is evaluating the impact of this guidance on its consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, "*Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments*", which changes 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. In November 2018, the FASB issued ASU 2018-19, "*Codification Improvements to Topic 326, Financial Instruments—Credit Losses*", which clarifies that receivables arising from operating leases are not within the scope of *Topic 326, Financial Instruments—Credit Losses*. Instead, impairment of receivables arising from operating leases should be accounted for in accordance with *Topic 842, Leases*. In April 2019, the FASB issued ASU 2019-04, "*Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*," which clarifies treatment of certain credit losses. In May 2019, the FASB issued ASU 2019-05, "*Financial Instruments — Credit Losses (Topic 326): Targeted Transition Relief*", which permits an entity, upon adoption of ASU 2016-13, to irrevocably elect the fair value option (on an instrument-by-instrument basis) for eligible financial assets measured at amortized cost basis. In November 2019, the FASB issued ASU 2019-11, "*Codification Improvements to Topic 326, Financial Instruments - Credit Losses*", which clarifies the accounting treatment and disclosure requirements for assets purchased with credit deterioration, troubled debt restructurings, and certain other investments. In February 2020, the FASB issued ASU 2020-02, "*Financial Instruments—Credit Losses (Topic 326) and Leases (Topic 842) Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 119 and Update to SEC Section on Effective Date Related to Accounting Standards Update No. 2016-02, Leases (Topic 842)*." This ASU provides guidance regarding methodologies, documentation, and internal controls related to expected credit losses. These ASUs are effective for interim and annual periods beginning after December 15, 2019, and early adoption is permitted. The Company is evaluating the impact of this guidance on its consolidated financial statements.

### 3. Fair Value Measurements

The following tables provide the financial assets measured at fair value on a recurring basis:

	Amortized Cost or Carrying Value	Gross Unrealized Gains	Gross Unrealized Losses Less Than 12 Months	Gross Unrealized Losses More Than 12 Months	Fair Value Hierarchy as of December 31, 2019			Aggregate Fair Value
					Level 1	Level 2	Level 3	
(In thousands)								
<b>Financial Assets:</b>								
Cash and cash equivalents:								
Money market funds	\$ 153,252	\$ —	\$ —	\$ —	\$ 153,252	\$ —	\$ —	\$ 153,252
Reverse repurchase agreements	35,800	—	—	—	—	35,800	—	35,800
Total included in cash and cash equivalents	189,052	—	—	—	153,252	35,800	—	189,052
Marketable securities:								
U.S. Treasury securities	215,847	241	(3)	—	216,085	—	—	216,085
Corporate debt securities and commercial paper	1,378,487	4,516	(55)	—	5,000	1,377,948	—	1,382,948
Total marketable securities	1,594,334	4,757	(58)	—	221,085	1,377,948	—	1,599,033
Strategic investments	5,500	—	—	—	—	—	5,500	5,500
Total financial assets	\$ 1,788,886	\$ 4,757	\$ (58)	\$ —	\$ 374,337	\$ 1,413,748	\$ 5,500	\$ 1,793,585

	Amortized Cost or Carrying Value	Gross Unrealized Gains	Gross Unrealized Losses Less Than 12 Months	Gross Unrealized Losses More Than 12 Months	Fair Value Hierarchy as of December 31, 2018			Aggregate Fair Value
					Level 1	Level 2	Level 3	
(In thousands)								
<b>Financial Assets:</b>								
Cash and cash equivalents:								
Money market funds	\$ 420,234	\$ —	\$ —	\$ —	\$ 420,234	\$ —	\$ —	\$ 420,234
Reverse repurchase agreements	35,000	—	—	—	—	35,000	—	35,000
Commercial paper	9,983	—	—	—	—	9,983	—	9,983
Total included in cash and cash equivalents	465,217	—	—	—	420,234	44,983	—	465,217
Marketable securities:								
U.S. Treasury securities	59,785	—	(7)	(9)	59,769	—	—	59,769
Corporate debt securities and commercial paper	201,683	23	(123)	(224)	—	201,359	—	201,359
Total marketable securities	261,468	23	(130)	(233)	59,769	201,359	—	261,128
Total financial assets	\$ 726,685	\$ 23	\$ (130)	\$ (233)	\$ 480,003	\$ 246,342	\$ —	\$ 726,345

As the Company views its marketable securities as available to support current operations, it has classified all available for sale securities as short-term. As of December 31, 2019, the Company had no securities that were in unrealized loss position for over 12 months. As of December 31, 2018, for fixed income securities that were in unrealized loss positions, the Company has determined that (i) it does not have the intent to sell any of these investments, and (ii) it is not more likely than not that it will be required to sell any of these investments before recovery of the entire amortized cost basis. In addition, as of December 31, 2019 and 2018, the Company anticipates that it will recover the entire amortized cost basis of such fixed income securities and determined that no other-than-temporary impairments were required to be recognized during the years ended December 31, 2019, 2018 and 2017.

Interest earned on marketable securities was \$20.8 million, \$3.0 million and \$2.6 million in the years ended December 31, 2019, 2018 and 2017, respectively. The interest is recorded as other income (expense), net, in the accompanying consolidated statements of operations.

The following table summarizes the contractual maturities of marketable securities:

	As of December 31, 2019		As of December 31, 2018	
	Amortized Cost	Aggregate Fair Value	Amortized Cost	Aggregate Fair Value
<b>Financial Assets:</b>	(In thousands)			
Less than one year	\$ 859,996	\$ 861,181	\$ 261,468	\$ 261,128
One to three years	734,338	737,852	—	—
Total	\$ 1,594,334	\$ 1,599,033	\$ 261,468	\$ 261,128

The Company enters into reverse securities repurchase agreements, primarily for short-term investments with maturities of 90 days or less. As of December 31, 2019 and 2018, the Company was party to reverse repurchase agreements totaling \$35.8 million and \$35.0 million, respectively, which were reported in cash and equivalents in the accompanying consolidated balance sheets. Under these reverse securities repurchase agreements, the Company typically lends available cash at a specified rate of interest and holds U.S. government securities as collateral during the term of the agreement. Collateral value is in excess of the amounts loaned under these agreements.

In May and August 2019, the Company made strategic investments totaling \$5.5 million into privately held debt securities in which the Company does not have a controlling interest or significant influence. These securities are recorded at fair value in other long-term assets in the consolidated balance sheet. The Company classifies its strategic investments as Level 3 within the fair value hierarchy based on the nature of the fair value inputs and judgment involved in the valuation process. There were no material changes to fair value of these securities during the year ended December 31, 2019.

As of December 31, 2019 and 2018, the fair value of the 0.25% convertible senior notes due 2023 (the "Notes"), as further described in Note 9 below, was approximately \$841.3 million and \$743.4 million, respectively. The fair value of the Notes is determined based on the closing price on the last trading day of the reporting period and is classified as a Level 2 security within the fair value hierarchy.

#### 4. Property and Equipment

Property and equipment consisted of the following:

	As of December 31,	
	2019	2018
	(In thousands)	
Capitalized internal-use software development costs	\$ 100,155	\$ 72,647
Data center equipment <sup>(1)</sup>	22,009	—
Leasehold improvements	55,886	15,293
Office equipment	25,083	13,563
Furniture and fixtures <sup>(1)</sup>	10,095	4,918
Software	9,176	1,849
Total property and equipment	222,404	108,270
Less: accumulated depreciation and amortization	(81,148)	(44,736)
Total property and equipment, net	\$ 141,256	\$ 63,534

<sup>(1)</sup> Data center equipment and furniture and fixtures contain assets under finance leases. See Note 5 for further detail.

Depreciation and amortization expense was \$37.5 million, \$18.9 million and \$13.1 million for the years ended December 31, 2019, 2018 and 2017, respectively.



The Company capitalized \$29.7 million, \$25.3 million and \$21.5 million in internal-use software development costs in the years ended December 31, 2019, 2018 and 2017, respectively, of which \$7.8 million, \$5.7 million and \$4.2 million, respectively, was stock-based compensation expense. Amortization of capitalized software development costs was \$17.1 million, \$13.0 million, and \$8.4 million in the years ended December 31, 2019, 2018 and 2017, respectively. The amortization of the capitalized software development costs was allocated as follows:

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Cost of revenue	\$ 9,546	\$ 6,898	\$ 4,788
Research and development	7,345	5,437	3,619
General and administrative	213	689	—
Total	<u>\$ 17,104</u>	<u>\$ 13,024</u>	<u>\$ 8,407</u>

## 5. Right-of-Use Asset and Lease Liabilities

The Company determines if an arrangement is a lease at inception. The Company presents the operating leases in long-term assets and current and long-term liabilities. Finance lease assets are included in property and equipment, net, and finance lease liabilities are presented in current and long-term liabilities in the accompanying consolidated balance sheet as of December 31, 2019.

Right-of-use ("ROU") assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As the Company's leases do not generally provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. The Company's lease agreements may have lease and non-lease components, which the Company accounts for as a single lease component. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term and variable payments are recognized in the period they are incurred. The Company's lease agreements do not contain any residual value guarantees. Leases with an initial term of 12 months or less are not recorded on the balance sheet.

The Company has entered into various operating lease agreements for data centers and office space, and various financing leases agreements for data center and office equipment and furniture.

As of December 31, 2019, the Company had 22 leased properties with remaining lease terms of 0.2 years to 9.0 years, some of which include options to extend the leases for up to 5.0 years.

The components of the lease expense recorded in the consolidated statement of operations were as follows:

	Year Ended December 31, 2019
	(In thousands)
Operating lease cost	\$ 32,558
Finance lease cost:	
Amortization of assets	6,090
Interest on lease liabilities	708
Short-term lease cost	6,342
Variable lease cost	3,792
Total net lease cost	<u>\$ 49,490</u>

Supplemental balance sheet information related to leases was as follows:

Leases	Classification	As of December 31, 2019
<b>Assets:</b>		(In thousands)
Operating lease assets	Operating right-of-use asset, net of accumulated amortization <sup>(1)</sup>	\$ 156,741
Finance lease assets	Property and equipment, net of accumulated depreciation <sup>(2)</sup>	14,770
<b>Total leased assets</b>		<b>\$ 171,511</b>
<b>Liabilities:</b>		
Current		
Operating	Operating lease liability, current	\$ 27,156
Finance	Financing lease liability, current	6,924
Noncurrent		
Operating	Operating lease liability, noncurrent	139,200
Finance	Finance lease liability, noncurrent	8,746
<b>Total lease liabilities</b>		<b>\$ 182,026</b>

(1) Operating lease assets are recorded net of accumulated amortization of \$23.2 million as of December 31, 2019.

(2) Finance lease assets are recorded net of accumulated depreciation of \$6.0 million as of December 31, 2019.

Supplemental cash flow and other information related to leases was as follows:

	Year Ended December 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
	(In thousands)
Operating cash flows from operating leases	\$ 28,291
Operating cash flows from finance leases (interest)	\$ 687
Financing cash flows from finance leases	\$ 5,646
Weighted average remaining lease term (in years):	
Operating leases	6.1
Finance leases	3.0
Weighted average discount rate:	
Operating leases	5.5%
Finance leases	5.3%

Maturities of lease liabilities were as follows:

Year Ended December 31,	As of December 31, 2019	
	Operating Leases	Finance Leases
	(In thousands)	
2020	\$ 35,997	\$ 7,586
2021	34,762	4,659
2022	33,214	2,333
2023	27,859	1,581
2024	25,400	315
Thereafter	43,125	581
Total lease payments	200,357	17,055
Less: imputed interest	(34,001)	(1,385)
Total lease obligations	166,356	15,670
Less: current obligations	(27,156)	(6,924)
Long-term lease obligations	\$ 139,200	\$ 8,746

As of December 31, 2019, the Company had additional operating lease obligations totaling \$54.1 million related to leases that will commence in the first and second quarters of 2020 with lease terms ranging from 3.0 years to 6.8 years. The Company had an additional finance lease obligation of \$0.7 million related to a lease that will commence in the second quarter of 2020 with a lease term of 6.8 years.

Disclosures related to periods prior to adoption of the New Lease Standard

Rent expense was \$10.3 million and \$8.1 million for the years ended December 31, 2018 and 2017, respectively.

Future minimum lease payment obligations under noncancelable operating and finance leases were as follows:

Year Ended December 31,	As of December 31, 2019	
	Operating Leases	Financing Leases
	(In thousands)	
2019	\$ 24,128	\$ 306
2020	29,527	512
2021	30,898	573
2022	30,492	590
2023	30,122	608
Thereafter	81,316	1,939
Total minimum lease payments	\$ 226,483	\$ 4,528

## 6. Business Combinations

*SendGrid, Inc.*

In February 2019, the Company acquired all outstanding shares of SendGrid, Inc. ("SendGrid"), the leading email API platform, by issuing 23.6 million shares of its Class A common stock with a total value of \$2,658.9 million. The Company also assumed all of the outstanding stock options and restricted stock units of SendGrid as converted into stock options and restricted stock units, respectively, of the Company based on the conversion ratio provided in the Agreement and Plan of Merger and Reorganization, as amended (the "Merger Agreement").

The acquisition added additional products and services to the Company's offerings for its customers. With these additional products, the Company now offers an email API and Marketing Campaigns product leveraging the email API. The acquisition has also added new customers, new employees, technology and intellectual property assets.

The acquisition was accounted for as a business combination and the total purchase price was allocated to the net tangible and intangible assets and liabilities based on their fair values on the acquisition date with the excess recorded as goodwill. Subsequent to the acquisition date of February 1, 2019, and during the measurement period that ended on December 31, 2019, the Company recorded \$4.4 million of adjustments to goodwill.

The adjusted purchase price of \$2,841.5 million reflects the \$2,658.9 million fair value of 23.6 million shares of the Company's Class A common stock transferred as consideration for all outstanding shares of SendGrid, and the \$182.6 million fair value of the pre-combination services of SendGrid employees reflected in the equity awards assumed by the Company on the acquisition date.

The fair value of the 23.6 million shares transferred as consideration was determined on the basis of the closing market price of the Company's Class A common stock on the acquisition date. The fair value of the equity awards was determined (a) for options, by using a Black-Scholes option pricing model with the applicable assumptions as of the acquisition date, and (b) for restricted stock units, by using the closing market price of the Company's Class A common stock on the acquisition date.

The unvested stock awards assumed on the acquisition date continue to vest as the SendGrid employees continue to provide services in the post-acquisition period. The fair value of these awards is recorded as share-based compensation expense over the respective vesting period of each award.

The purchase price components, as adjusted, are summarized in the following table:

	<b>Total</b>
	(In thousands)
Fair value of Class A common stock transferred	\$ 2,658,898
Fair value of the pre-combination service through equity awards	182,554
Total purchase price, as adjusted	<u>\$ 2,841,452</u>

The following table presents the purchase price allocation, as adjusted, recorded in the Company's consolidated balance sheet as of December 31, 2019.

	<b>Total</b>
	(In thousands)
Cash and cash equivalents	\$ 156,783
Accounts receivable and other current assets	11,635
Property and equipment, net	38,350
Operating right-of-use asset	33,742
Intangible assets <sup>(1)</sup>	483,000
Other assets	1,664
Goodwill	2,235,193
Accounts payable and other liabilities	(11,114)
Operating lease liability	(32,568)
Finance lease liability	(13,616)
Note payable	(5,387)
Deferred tax liability	(56,230)
<b>Total purchase price</b>	<b>\$ 2,841,452</b>

<sup>(1)</sup> Identifiable intangible assets are comprised of the following:

	<b>Total</b>	<b>Estimated life</b>
	(In thousands)	(In years)
Developed technology	\$ 294,000	7
Customer relationships	169,000	7
Trade names	20,000	5
<b>Total intangible assets acquired</b>	<b>\$ 483,000</b>	

The Company acquired a net deferred tax liability of \$56.2 million in this business combination that is included in long-term liabilities in the accompanying consolidated balance sheet. This amount was offset by a release of a valuation allowance on deferred tax assets of \$47.9 million.

Developed technology consists of software products and domain knowledge around email delivery developed by SendGrid, which enables the delivery of email reliably and at scale. Customer relationships consists of contracts with platform users that purchase SendGrid's products and services that carry distinct value. Trade names represent the Company's right to the SendGrid trade names and associated design as it existed on the acquisition closing date.

Goodwill generated from this acquisition primarily represents the value that is expected from the increased scale and synergies as a result of the integration of both businesses. Goodwill is not deductible for tax purposes.

The estimated fair value of the intangible assets acquired was determined by the Company and the Company considered or relied in part upon a valuation report of a third-party expert. The Company used an income approach to estimate the fair values of the developed technology, an incremental income approach to estimate the value of the customer relationships and a relief from royalty method to estimate the fair value of the trade name.

Most of the net tangible assets were valued at their respective carrying amounts as of the acquisition date, as the Company believes that these amounts approximate their current fair values. The leases acquired were recorded at their respective fair values as of the acquisition date.

The acquired entity's results of operations were included in the Company's consolidated financial statements from the date of acquisition, February 1, 2019. For the year ended December 31, 2019, SendGrid contributed net operating revenue of \$177.1 million, which is reflected in the accompanying consolidated statement of operations. Due to the integrated nature of the Company's operations, the Company believes that it is not practicable to separately identify earnings of SendGrid on a stand-

alone basis.

During the year ended December 31, 2019, the Company incurred costs related to this acquisition of \$13.9 million that were expensed as incurred and recorded in general and administrative expenses in the accompanying consolidated statement of operations.

The following unaudited pro forma condensed combined financial information gives effect to the acquisition of SendGrid as if it was consummated on January 1, 2018 (the beginning of the comparable prior reporting period), and includes pro forma adjustments related to the amortization of acquired intangible assets, share-based compensation expense and direct and incremental transaction costs reflected in the historical financial statements. Specifically, the following adjustments were made:

- For the year ended December 31, 2019, the Company's and SendGrid's direct and incremental transaction costs of \$40.8 million are excluded from pro forma combined net loss.
- For the year ended December 31, 2018, the Company's direct and incremental transaction costs of \$13.9 million are included in the pro forma combined net loss.
- In the year ended December 31, 2019, the pro forma combined net loss includes a reversal of the valuation allowance release of \$48.0 million.
- In the year ended December 31, 2018, the pro forma condensed combined net loss includes a one-time tax benefit of \$53.5 million that would have resulted from the acquisition, and an ongoing tax benefit of \$29.4 million.

This unaudited data is presented for informational purposes only and is not intended to represent or be indicative of the results of operations that would have been reported had the acquisition occurred on January 1, 2018. It should not be taken as representative of future results of operations of the combined company.

The following table presents the pro forma condensed combined financial information:

	<b>Year Ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
	(Unaudited, in thousands)	
Revenue	\$ 1,148,214	\$ 796,607
Net loss attributable to common stockholders	\$ (322,030)	\$ (211,705)

#### *Other Fiscal 2019 Acquisitions*

In fiscal 2019 the Company acquired several businesses for a total purchase price of \$43.2 million paid in cash, of which \$9.1 million was withheld for the period of 18 to 36 months, and \$12.8 million of deferred equity consideration, which is recorded in the post-acquisition period as the services are provided. The Company does not consider these acquisition to be material, individually or in aggregate. Total purchase price was allocated to the tangible and intangibles assets acquired and liabilities assumed based on preliminary calculations as the Company continues to gather information necessary to finalize the valuations. These preliminary values may change in the future reporting periods until the valuations are finalized, which will occur in the second and fourth quarters of 2020. Goodwill of \$23.4 million was recorded to reflect the excess purchase price over the net assets acquired and represents the value that the Company expects to realize from expanding its product offerings and other synergies. Goodwill that is expected to be deductible for tax purposes is \$6.8 million.

The following table summarizes the preliminary purchase price allocation in aggregate for the other business acquired in fiscal 2019 recorded in the Company's consolidated balance sheet as of December 31, 2019:

	<b>Total</b>
	(In thousands)
Net liabilities	\$ (3,219)
Intangible assets <sup>(1)</sup>	22,986
Goodwill	23,425
Total preliminary purchase price	<u>\$ 43,192</u>

<sup>(1)</sup> Identifiable intangible assets were comprised of the following:

	<b>Total</b>	<b>Estimated life</b>
	(In thousands)	(In years)
Developed technology	\$ 11,771	4 - 6
Customer relationships	5,185	3 - 5
Telecommunication licenses	4,370	Indefinite
Supplier relationships	1,660	2
Total intangible assets acquired	<u>\$ 22,986</u>	

During the year ended December 31, 2019, the Company incurred \$1.9 million of costs related to this acquisition that were expensed as incurred and recorded in general and administrative expenses in the accompanying consolidated statement of operation.

Pro forma results of operations for these acquisitions are not presented as the financial impact to the Company's consolidated financial statements is immaterial.

### Fiscal 2018 Acquisitions

#### *Ytica.com a.s.*

In September 2018, the Company acquired all outstanding shares of Ytica.com a.s. ("Ytica"), a developer and provider of a contact center reporting and analytics based in the Czech Republic, for a total purchase price of \$21.8 million, paid in cash, of which \$3.2 million was held in escrow with a term of 18 months.

Additionally, the Company granted 47,574 restricted stock units of the Company's Class A common stock to a former shareholder of Ytica that had a value of \$3.6 million and is subject to vesting over a period of three years. The Company is recording stock-based compensation expense as the shares are vesting.

The acquisition was accounted for as a business combination and the total purchase price was allocated to the net tangible and intangible assets and liabilities based on their fair values on the acquisition date and the excess was recorded as goodwill. The acquired entity's results of operations have been included in the consolidated financial statements of the Company from the date of acquisition.

The following table presents the purchase price allocation recorded in the Company's consolidated balance sheet as of December 31, 2018:

	<b>Total</b>
	(In thousands)
Net liabilities	\$ (1,538)
Intangible assets <sup>(1)</sup>	9,920
Goodwill <sup>(2)</sup>	13,375
Total purchase price	<u>\$ 21,757</u>

<sup>(1)</sup> Identifiable intangible assets were comprised of the following:

	<b>Total</b>	<b>Estimated life</b>
	(In thousands)	(In years)
Developed technology	\$ 9,090	4
Customer relationships	830	2
<b>Total intangible assets acquired</b>	<b>\$ 9,920</b>	

<sup>(2)</sup> The goodwill is primarily attributable to the future cash flows to be realized from the acquired technology platform as well as operational synergies. The Company has filed for the elections that make the goodwill deductible for U.S. tax purposes.

The Company acquired a net deferred tax liability of \$1.7 million in this business combination.

The estimated fair value of the intangible assets acquired was determined by the Company, and the Company considered or relied in part upon a valuation report of a third-party expert. The Company used an income approach to estimate the fair values of the identifiable intangible assets.

The Company incurred costs related to this acquisition of \$0.6 million that were expensed as incurred and recorded in general and administrative expenses in the accompanying consolidated statement of operation.

Pro forma results of operations for this acquisition are not presented as the financial impact to the Company's consolidated financial statements is immaterial.

#### *Core Network Dynamics GmbH*

In August 2018, the Company acquired all outstanding shares of Core Network Dynamics GmbH ("CND"), a developer and provider of a complete software mobile network infrastructure based in Germany, for a total purchase price of \$11.1 million, paid in cash, of which \$2.0 million was withheld by the Company for a term of 18 months.

Additionally, the Company granted 35,950 restricted stock units of the Company's Class A common stock to a former shareholder of CND that had a value of \$2.2 million and is subject to vesting over a period of three years. The Company is recording a stock-based compensation expense as the shares are vesting.

The acquisition was accounted for as a business combination and the total purchase price was allocated to the net tangible and intangible assets and liabilities based on their fair values on the acquisition date and the excess was recorded as goodwill. The acquired entity's results of operations have been included in the consolidated financial statements of the Company from the date of acquisition.

The following table presents the purchase price allocation recorded in the Company's consolidated balance sheet as of December 31, 2018:

	<b>Total</b>
	(In thousands)
Net liabilities	\$ (313)
Intangible assets <sup>(1)</sup>	4,500
Goodwill <sup>(2)</sup>	6,869
<b>Total purchase price</b>	<b>\$ 11,056</b>

<sup>(1)</sup> Identifiable intangible assets were comprised of the following:

	<b>Total</b>	<b>Estimated life</b>
	(In thousands)	(In years)
Developed technology	\$ 3,910	4
Customer relationships	590	0.5
<b>Total intangible assets acquired</b>	<b>\$ 4,500</b>	



- (2) The goodwill is primarily attributable to the future cash flows to be realized from the operating synergies between the acquired technology platform and the Company's Programmable Wireless products. The Company has filed for the elections that make the goodwill deductible for U.S. tax purposes.

The Company acquired a net deferred tax liability of \$1.2 million in this business combination.

The estimated fair value of the intangible assets acquired was determined by the Company, and the Company considered or relied in part upon a valuation report of a third-party expert. The Company used a replacement cost approach to estimate the fair values of the identifiable intangible assets.

The Company incurred costs related to this acquisition of \$0.8 million that were expensed as incurred and have been recorded in general and administrative expenses in the accompanying consolidated statement of operation.

Pro forma results of operations for this acquisition are not presented as the financial impact to the Company's consolidated financial statements is immaterial.

### Fiscal 2017 Acquisitions

#### Beepsend, AB

In February 2017, the Company completed its acquisition of Beepsend AB, a messaging provider based in Sweden, specializing in messaging and SMS solutions, for a total purchase price of \$23.0 million, paid in cash, of which \$5.0 million was held in escrow with a term of 18 months and was fully released at the escrow expiration date.

The acquisition was accounted for as a business combination and the total purchase price was allocated to the net tangible and intangible assets and liabilities based on their fair values on the acquisition date. The acquired entity's results of operations were included in the consolidated financial statements of the Company from the date of acquisition.

The following table presents the purchase price allocation recorded in the Company's consolidated balance sheet:

	<b>Total</b>
	(In thousands)
Net liabilities	\$ (3,575)
Intangible assets <sup>(1)</sup>	13,700
Goodwill <sup>(2)</sup>	12,837
Total purchase price	<u>\$ 22,962</u>

- (1) Identifiable intangible assets were comprised of the following:

	<b>Total</b>	<b>Estimated life</b>
	(In thousands)	(In years)
Developed technology	\$ 5,000	4
Customer relationships	6,100	7 - 8
Supplier relationships	2,600	5
Total intangible assets acquired	<u>\$ 13,700</u>	

- (2) Goodwill represents the excess of purchase price over the fair value of identifiable tangible and intangible assets acquired and liabilities assumed. The goodwill in this transaction was primarily attributable to the future cash flows to be realized from the acquired technology platform, existing customer and supplier relationships as well as operational synergies. Goodwill is deductible for tax purposes.

The Company acquired a net deferred tax liability of \$2.6 million in this business combination.

The estimated fair value of the intangible assets acquired was determined by the Company, and the Company considered or relied in part upon a valuation report of a third-party expert. The Company used income approaches to estimate the fair values of the identifiable intangible assets. Specifically, the developed technology asset class was valued using the-relief-from

royalty method, while the customer relationships asset class was valued using a multi-period excess earnings method and the supplier relationships asset class was valued using an incremental cash flow method.

The Company incurred costs related to this acquisition of \$0.7 million, of which \$0.3 million was incurred during the year ended December 31, 2017. All acquisition related costs were expensed as incurred and have been recorded in general and administrative expenses in the accompanying consolidated statements of operations.

Pro forma results of operations for this acquisition are not presented as the financial impact to the Company's consolidated financial statements is immaterial.

## 7. Goodwill and Intangible Assets

### Goodwill

Goodwill balance as of December 31, 2019 and 2018, was as follows:

	<b>Total</b>
	(In thousands)
Balance as of December 31, 2017	\$ 17,851
Goodwill additions related to 2018 acquisitions	20,356
Measurement period adjustments	571
Effect of exchange rate	(613)
Balance as of December 31, 2018	\$ 38,165
Goodwill additions related to 2019 acquisitions	2,262,622
Measurement period adjustments	(4,003)
Balance as of December 31, 2019	\$ 2,296,784

### Intangible assets

Intangible assets consisted of the following:

	<b>As of December 31, 2019</b>		
	<b>Gross</b>	<b>Accumulated Amortization</b>	<b>Net</b>
	(In thousands)		
<b>Amortizable intangible assets:</b>			
Developed technology	\$ 333,980	\$ (55,390)	\$ 278,590
Customer relationships	182,339	(26,347)	155,992
Supplier relationships	4,356	(1,532)	2,824
Trade names	20,060	(3,727)	16,333
Patent	2,707	(262)	2,445
Total amortizable intangible assets	543,442	(87,258)	456,184
<b>Non-amortizable intangible assets:</b>			
Telecommunication licenses	4,370	—	4,370
Domain names	32	—	32
Trademarks and other	263	—	263
Total	\$ 548,107	\$ (87,258)	\$ 460,849

	As of December 31, 2018		
	Gross	Accumulated Amortization	Net
(In thousands)			
Amortizable intangible assets:			
Developed technology	\$ 28,209	\$ (10,497)	\$ 17,712
Customer relationships	8,153	(2,411)	5,742
Supplier relationships	2,696	(973)	1,723
Trade name	60	(60)	—
Patent	2,264	(178)	2,086
Total amortizable intangible assets	41,382	(14,119)	27,263
Non-amortizable intangible assets:			
Domain names	32	—	32
Trademarks	263	—	263
Total	\$ 41,677	\$ (14,119)	\$ 27,558

Amortization expense was \$72.9 million, \$7.2 million and \$5.7 million for the years ended December 31, 2019, 2018 and 2017, respectively,

Total estimated future amortization expense is as follows:

<u>Year Ended December 31,</u>	As of December 31, 2019
	(In thousands)
2020	\$ 81,419
2021	79,785
2022	77,170
2023	73,888
2024	68,359
Thereafter	75,563
Total	\$ 456,184

## 8. Accrued Expenses and Other Liabilities

Accrued expenses and other current liabilities consisted of the following:

	As of December 31,	
	2019	2018
	(In thousands)	
Accrued payroll and related	\$ 20,462	\$ 9,886
Accrued bonus and commission	12,898	8,564
Accrued cost of revenue	47,563	29,901
Sales and other taxes payable	28,592	23,631
ESPP contributions	4,023	2,672
Deferred rent	—	1,418
VAT and other taxes	4,838	2,217
Acquisition holdback	6,520	—
Accrued other expense	22,785	18,054
Total accrued expenses and other current liabilities	<u>\$ 147,681</u>	<u>\$ 96,343</u>

Other long-term liabilities consisted of the following:

	As of December 31,	
	2019	2018
	(In thousands)	
Deferred rent	\$ —	\$ 7,569
Deferred tax liability	7,535	5,181
Acquisition holdback	3,750	2,290
Capital lease obligation	—	2,170
Accrued other expenses	6,462	959
Total other long-term liabilities	<u>\$ 17,747</u>	<u>\$ 18,169</u>

## 9. Notes Payable

### Convertible Senior Notes and Capped Call Transactions

In May 2018, the Company issued \$550.0 million aggregate principal amount of 0.25% convertible senior notes due 2023 in a private placement, including \$75.0 million aggregate principal amount of such Notes pursuant to the exercise in full of the over-allotment options of the initial purchasers (collectively, the “Notes”). The interest on the Notes is payable semi-annually in arrears on June 1 and December 1 of each year, beginning on December 1, 2018.

The Notes may bear special interest under specified circumstances relating to the Company’s failure to comply with its reporting obligations under the indenture relating to the issuance of Notes (the “indenture”) or if the Notes are not freely tradeable as required by the indenture. The Notes will mature on June 1, 2023, unless earlier repurchased or redeemed by the Company or converted pursuant to their terms. The total net proceeds from the debt offering, after deducting initial purchaser discounts and debt issuance costs, paid or payable by us, were approximately \$537.0 million.

Each \$1,000 principal amount of the Notes is initially convertible into 14.104 shares of the Company’s Class A common stock par value \$0.001, which is equivalent to an initial conversion price of approximately \$70.90 per share. The conversion rate is subject to adjustment upon the occurrence of certain specified events but will not be adjusted for any accrued and unpaid special interest. In addition, upon the occurrence of a make-whole fundamental change, as defined in the indenture, the Company will, in certain circumstances, increase the conversion rate by a number of additional shares for a holder that elects to convert its Notes in connection with such make-whole fundamental change or during the relevant redemption period.

Prior to the close of business on the business day immediately preceding March 1, 2023, the Notes may be convertible at the option of the holders only under the following circumstances:

- (1) during any calendar quarter commencing after September 30, 2018, and only during such calendar quarter, if the last reported sale price of the Class A common stock for at least 20 trading days (whether or not consecutive) in a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is more than or equal to 130% of the conversion price on each applicable trading day;
- (2) during the five business days period after any five consecutive trading day period in which, for each trading day of that period, the trading price per \$1,000 principal amount of Notes for such trading day was less than 98% of the product of the last reported sale price of the Class A common stock and the conversion rate on each such trading day;
- (3) upon the Company's notice that it is redeeming any or all of the Notes; or
- (4) upon the occurrence of specified corporate events.

On or after March 1, 2023, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders of the Notes may, at their option, convert all or a portion of their Notes regardless of the foregoing conditions.

Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of Class A common stock, or a combination of cash and shares of Class A common stock, at the Company's election. It is the Company's current intent to settle the principal amount of the Notes with cash.

During the year ended December 31, 2019, the conditional conversion feature of the Notes was triggered as the last reported sale price of the Company's Class A common stock was more than or equal to 130% of the conversion price for at least 20 trading days (whether or not consecutive) in the period of 30 consecutive trading days ending on December 31, 2019 (the last trading day of the calendar quarter), and therefore the Notes are currently convertible, in whole or in part, at the option of the holders between January 1, 2020 through March 31, 2020. Whether the Notes will be convertible following such period will depend on the continued satisfaction of this condition or another conversion condition in the future. The Company continues to classify the Notes as a long-term liability in its consolidated balance sheet as of December 31, 2019, based on contractual settlement provisions. The Company may redeem the Notes, in whole or in part, at its option, on or after June 1, 2021 but before the 35th scheduled trading day before the maturity date, at a cash redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest, if any, if the last reported sale price of the Class A common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading days ending on, and including, the trading day immediately before the date the redemption notices were sent; and the trading day immediately before such notices were sent.

No sinking fund is provided for the Notes. Upon the occurrence of a fundamental change (as defined in the indenture) prior to the maturity date, holders may require the Company to repurchase all or a portion of the Notes for cash at a price equal to 100% of the principal amount of the Notes to be repurchased, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The Notes are senior unsecured obligations and will rank senior in right of payment to any of the Company's indebtedness that is expressly subordinated in right of payment to the Notes; equal in right of payment with the Company's existing and future liabilities that are not so subordinated; effectively subordinated to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of current or future subsidiaries of the Company.

The foregoing description is qualified in its entirety by reference to the text of the indenture and the form of 0.25% convertible senior notes due 2023, which were filed as exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 and are incorporated herein by reference.

In accounting for the issuance of the Notes, the Company separated the Notes into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of a similar debt instrument that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was \$119.4 million and was determined by deducting the fair value of the liability component from the par value of the Notes. The equity component is not remeasured as long as it continues to meet the conditions for equity classification. The excess of the principal amount of the liability component over its carrying amount, or the debt discount, is amortized to interest expense at an annual effective interest rate of 5.7% over the contractual terms of the Notes.

In accounting for the transaction costs related to the Notes, the Company allocated the total amount incurred to the liability and equity components of the Notes based on the proportion of the proceeds allocated to the debt and equity components. Issuance costs attributable to the liability component were approximately \$10.2 million, were recorded as an additional debt discount and are amortized to interest expense using the effective interest method over the contractual terms of the Notes. Issuance costs attributable to the equity component were netted with the equity component in stockholders' equity.

The net carrying amount of the liability component of the Notes was as follows:

	As of December 31,	
	2019	2018
	(In thousands)	
Principal	\$ 549,999	\$ 550,000
Unamortized discount	(84,647)	(106,484)
Unamortized issuance costs	(7,162)	(9,020)
Net carrying amount	<u>\$ 458,190</u>	<u>\$ 434,496</u>

The net carrying amount of the equity component of the Notes was as follows:

	As of December 31,	
	2019	2018
	(In thousands)	
Proceeds allocated to the conversion options (debt discount)	\$ 119,435	\$ 119,435
Issuance costs	(2,819)	(2,819)
Net carrying amount	<u>\$ 116,616</u>	<u>\$ 116,616</u>

The following table sets forth the interest expense recognized related to the Notes:

	Year Ended December 31,	
	2019	2018
	(In thousands)	
Contractual interest expense	\$ 1,375	\$ 852
Amortization of debt issuance costs	1,858	1,102
Amortization of debt discount	21,838	12,951
Total interest expense related to the Notes	<u>\$ 25,071</u>	<u>\$ 14,905</u>

In connection with the offering of the Notes, the Company entered into privately negotiated capped call transactions with certain counterparties (the "capped calls"). The capped calls each have an initial strike price of approximately \$70.90 per share, subject to certain adjustments, which corresponds to the initial conversion price of the Notes. The capped calls have initial cap prices of \$105.04 per share, subject to certain adjustments. The capped calls cover, subject to anti-dilution adjustments, approximately 7,757,172 shares of Class A common stock. The capped calls are generally intended to reduce or offset the potential dilution to the Class A common stock upon any conversion of the Notes with such reduction or offset, as the case may be, subject to a cap based on the cap price. The capped calls expire on the earlier of (i) the last day on which any convertible securities remain outstanding and (ii) June 1, 2023, subject to earlier exercise. The capped calls are subject to either adjustment or termination upon the occurrence of specified extraordinary events affecting the Company, including a merger event, a tender offer, and a nationalization, insolvency or delisting involving the Company. In addition, the capped calls are subject to certain specified additional disruption events that may give rise to a termination of the capped calls, including changes in law, insolvency filings, and hedging disruptions. The capped call transactions are recorded in stockholders' equity and are not accounted for as derivatives. The net cost of \$58.5 million incurred to purchase the capped call transactions was recorded as a reduction to additional paid-in capital in the accompanying consolidated balance sheet.

## 10. Supplemental Balance Sheet Information

A roll-forward of the Company's reserves is as follows:

(a) *Allowance for doubtful accounts:*

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Balance, beginning of period	\$ 4,945	\$ 1,033	\$ 1,076
Additions	2,226	4,085	580
Write-offs	(884)	(173)	(623)
Balance, end of period	<u>\$ 6,287</u>	<u>\$ 4,945</u>	<u>\$ 1,033</u>
Percentage of revenue	1%	1%	—%

(b) *Sales credit reserve:*

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Balance, beginning of period	\$ 3,015	\$ 1,761	\$ 544
Additions	18,143	5,560	2,531
Deductions against reserve	(14,374)	(4,306)	(1,314)
Balance, end of period	<u>\$ 6,784</u>	<u>\$ 3,015</u>	<u>\$ 1,761</u>
Percentage of revenue	1%	—%	—%

## 11. Revenue by Geographic Area

Revenue by geographic area is based on the IP address or the mailing address at the time of registration. The following table sets forth revenue by geographic area:

	Year Ended December 31,		
	2019	2018	2017
Revenue by geographic area:	(In thousands)		
United States	\$ 808,857	\$ 484,809	\$ 308,612
International	325,611	165,258	90,408
Total	<u>\$ 1,134,468</u>	<u>\$ 650,067</u>	<u>\$ 399,020</u>
Percentage of revenue by geographic area:			
United States	71%	75%	77%
International	29%	25%	23%

Long-lived assets outside the United States were not significant.

## 12. Commitments and Contingencies

(a) *Lease and Other Commitments*

The Company entered into various non-cancelable operating lease agreements for its facilities that expire over the next 9.0 years. See Note 5 to these consolidated financial statements for additional detail on the Company's operating and finance lease commitments.

Additionally, the Company has contractual commitments with its cloud infrastructure provider, network service providers and other vendors that are noncancelable and expire within one to four years. Future minimum payments under these noncancelable purchase commitments were as follows. Unrecognized tax benefits are not included in these amounts because any amounts expected to be settled in cash are not material:

<u>Year Ending December 31,</u>	<u>As of December 31, 2019</u>
	(In thousands)
2020	\$ 62,444
2021	50,813
2022	2,855
2023	3,750
2024	—
Thereafter	—
Total payments	<u>\$ 119,862</u>

**(b) Legal Matters**

On April 30, 2015 and March 28, 2016, Telesign Corporation ("Telesign") filed lawsuits (which were subsequently consolidated) against the Company in the United States District Court, Central District of California ("Telesign I/II"). Telesign alleges in Telesign I/II that the Company is infringing four U.S. patents that it holds: U.S. Patent No. 7,945,034 ("034"), U.S. Patent No. 8,462,920 ("920"), U.S. Patent No. 8,687,038 ("038") and U.S. Patent No. 9,300,792 ("792"). The consolidated Telesign I/II actions have been transferred to the United States District Court, Northern District. The patent infringement allegations in the lawsuit relate to the Company's two-factor authentication use case, *Authy*, and an API tool to find information about a phone number. Telesign seeks, among other things, to enjoin the Company from allegedly infringing the patents, along with damages for lost profits and damages based on a reasonable royalty.

On March 8, 2017, in response to a petition by the Company, the U.S. Patent and Trademark Officer ("PTO") issued an order instituting an *inter partes* review for the '792 patent. On March 6, 2018, the PTO found all claims challenged by the Company in the *inter partes* review unpatentable. Telesign did not appeal the PTO's decision and it is final. On October 19, 2018, the district court granted the Company's motion that all remaining asserted claims of the asserted patents are invalid under 35 U.S.C. § 101 and entered judgment in the Company's favor. On November 8, 2018, Telesign appealed the judgment to the United States Court of Appeals for the Federal Circuit. On January 9, 2020, the Federal Circuit Court affirmed the district court's judgment. Telesign has not indicated whether it will seek a further appeal of the judgment. Based on, among other things, the district court's judgment being affirmed on appeal in the Company's favor, the Company does not believe a loss is probable or estimable.

On December 1, 2016, the Company filed a patent infringement lawsuit against Telesign in the United States District Court, Northern District of California ("Telesign III"), alleging infringement of United States Patent No. 8,306,021 ("021"), United States Patent No. 8,837,465 ("465"), United States Patent No. 8,755,376 ("376"), United States Patent No. 8,736,051 ("051"), United States Patent No. 8,737,962 ("962"), United States Patent No. 9,270,833 ("833"), and United States Patent No. 9,226,217 ("217"). Telesign filed a motion to dismiss the complaint on January 25, 2017. In two orders, issued on March 31, 2017 and April 17, 2017, the court granted Telesign's motion to dismiss with respect to the '962, '833, '051 and '217 patents, but denied Telesign's motion to dismiss as to the '021, '465 and '376 patents. On August 23, 2017, Telesign petitioned the U.S. Patent and Trademark Office ("U.S. PTO") for *inter partes* review of the '021, '465, and '376 patents. On March 9, 2018, the PTO denied Telesign's petition for *inter partes* review of the '021 patent and granted Telesign's petitions for *inter partes* review of the '465 and '376 patents. On March 6, 2019, the PTO found all claims challenged by Telesign in the *inter partes* review unpatentable. The Company has appealed the decisions to the United States Court of Appeals for the Federal Circuit. Telesign III is currently stayed pending resolution of the *inter partes* reviews (and appeals from them) of the '465 and



‘376 patents. The Company is seeking a judgment of infringement, a judgment of willful infringement, monetary and injunctive relief, enhanced damages, and an award of costs and expenses against Telesign.

On February 18, 2016, a putative class action complaint was filed in the Alameda County Superior Court in California, entitled *Angela Flowers v. Twilio Inc.* The complaint alleges that the Company’s products permit the interception, recording and disclosure of communications at a customer’s request and are in violation of the California Invasion of Privacy Act. The complaint seeks injunctive relief as well as monetary damages. On January 2, 2018, the court issued an order granting in part and denying in part the plaintiff’s class certification motion. The court certified two classes of individuals who, during specified time periods, allegedly sent or received certain communications involving the accounts of three of the Company’s customers that were recorded. Following mediation, on January 7, 2019, the parties signed a long form settlement agreement, providing for a payment of \$10.0 million into a common fund and injunctive relief involving certain updates to Twilio’s Acceptable Use Policy and customer documentation. On January 15, 2019, the court entered an order granting preliminary approval of the settlement, and the parties signed an amended settlement agreement to conform to the court’s order. The court entered a final order and judgment approving the settlement on June 17, 2019. On August 30, 2019, Twilio made a payment of \$1.7 million to fund the settlement. A compliance hearing has been scheduled for May 19, 2020. Any additional loss related to this matter is neither probable nor reasonably possible.

On September 1, 2015, Twilio was named as a defendant in a First Amended Complaint in a putative class action captioned *Jeremy Bauman v. David Saxe, et al.* pending in the United States District Court, District of Nevada relating to the alleged sending of unsolicited text messages to the plaintiffs and putative class members. The Company filed a motion to dismiss, which was granted, and on September 20, 2016 the plaintiff filed a Second Amended Complaint with additional allegations that the Company violated the Telephone Consumer Protection Act (“TCPA”), and the Nevada Deceptive Trade Practices Act (“NDTPA”), NRS 41.600(2)(e). On January 10, 2019, the court granted Plaintiffs’ motion for class certification under the TCPA and denied plaintiff’s request to certify a class under the NDTPA. On February 13, 2019, the court issued an order denying the Company’s motion to dismiss as to Plaintiffs’ TCPA claim and granting dismissal as to Plaintiffs’ NDTPA claim. On February 22, 2019, the court stayed the case and directed all parties to mediation, which was conducted on May 15, 2019. On May 17, 2019, the original defendants (the “Saxe Defendants”) and Twilio entered an agreement, which among other things, obligates the Saxe Defendants to fully fund all monetary and non-monetary aspects of the settlement of the matter and to obtain the dismissal of the plaintiffs’ and the class’s claims against the Company with prejudice. On October 7, 2019, the plaintiffs filed an unopposed motion for settlement and an unopposed motion to dismiss Twilio from the action without prejudice. Based on, among other things, the dismissal motion and our agreement with the Saxe Defendants, the Company does not believe a loss is reasonably possible or estimable.

In addition to the litigation discussed above, from time to time, the Company may be subject to legal actions and claims in the ordinary course of business. The Company has received, and may in the future continue to receive, claims from third parties asserting, among other things, infringement of their intellectual property rights. Future litigation may be necessary to defend the Company, its partners and its customers 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 the Company because of defense and settlement costs, diversion of management resources, and other factors.

Legal fees and other costs related to litigation and other legal proceedings are expensed as incurred and are included in general and administrative expenses in the accompanying consolidated statements of operations.

**(c) Indemnification Agreements**

The Company has signed indemnification agreements with all of its board members and executive officers. The agreements indemnify the board members and executive officers from claims and expenses on actions brought against the individuals separately or jointly with the Company for certain indemnifiable events. Indemnifiable Events generally mean any event or occurrence related to the fact that the board member or the executive officer was or is acting in his or her capacity as a board member or an executive officer for the Company or was or is acting or representing the interests of the Company.

In the ordinary course of business and in connection with our financing and business combinations transactions, the Company enters into contractual arrangements under which it agrees to provide indemnification of varying scope and terms to business partners, customers and other parties with respect to certain matters, including, but not limited to, losses arising out of the breach of such agreements, intellectual property infringement claims made by third parties and other liabilities relating to or arising from the Company’s various products, or its acts or omissions. In these circumstances, payment may be conditional on the other party making a claim pursuant to the procedures specified in the particular contract. Further, the Company’s

obligations under these agreements may be limited in terms of time and/or amount, and in some instances, the Company may have recourse against third parties for certain payments. The terms of such obligations may vary.

As of December 31, 2019 and 2018, no amounts were accrued.

**(d) Other Taxes**

The Company conducts operations in many tax jurisdictions throughout the United States. In many of these jurisdictions, non-income-based taxes, such as sales and use and telecommunications taxes are assessed on the Company's operations. Prior to March 2017, the Company had not billed nor collected these taxes from its customers and, in accordance with U.S. GAAP, recorded a provision for its tax exposure in these jurisdictions when it was both probable that a liability had been incurred and the amount of the exposure could be reasonably estimated. These estimates included several key assumptions including, but not limited to, the taxability of the Company's services, the jurisdictions in which its management believes it had nexus, and the sourcing of revenues to those jurisdictions. Starting in March 2017, the Company began collecting these taxes from customers in various jurisdiction and since then has expanded to most jurisdictions where these taxes are now being collected. Simultaneously, the Company continues to be in discussions with certain states regarding its prior state sales and other taxes, if any, that the Company may owe.

During 2017, the Company revised its estimates of its tax exposure based on settlements reached with various states indicating that certain revisions to the key assumptions were appropriate. Those revisions included, but were not limited to, the sourcing of revenue and the taxability of the Company's services. In the year ended December 31, 2017, the total impact of these changes on the net loss attributable to common stockholders was a reduction of \$13.4 million. As of December 31, 2019 and 2018, the liability recorded for these taxes was \$27.0 million and \$22.6 million, respectively.

In the event other jurisdictions challenge management's assumptions and analysis, the actual exposure could differ materially from the current estimates.

### **13. Stockholders' Equity**

***Preferred Stock***

As of December 31, 2019 and 2018, the Company had authorized 100,000,000 shares of preferred stock, par value \$0.001, of which no shares were issued and outstanding.

***Common Stock***

As of December 31, 2019 and 2018, the Company had authorized 1,000,000,000 shares of Class A common stock and 100,000,000 shares of Class B common stock, each par value \$0.001 per share. As of December 31, 2019, 126,882,172 shares of Class A common stock and 11,530,627 shares of Class B common stock were issued and outstanding. As of December 31, 2018, 80,769,763 shares of Class A common stock and 19,310,465 shares of Class B common stock were issued and outstanding. Holders of Class A and Class B common stock are entitled to one vote per share and 10 votes per share, respectively, and the shares of Class A common stock and Class B common stock are identical, except for voting and conversion rights.

In June 2019, the Company completed a public equity offering in which the Company sold 8,064,515 shares of its Class A common stock, which included 1,051,893 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at a public offering price of \$124.00 per share. The Company received aggregate proceeds of \$979.0 million after deducting underwriting discounts and offering expenses paid and payable by the Company.

The Company had reserved shares of common stock for issuance as follows:

	As of December 31,	
	2019	2018
Stock options issued and outstanding	7,705,848	7,978,369
Nonvested restricted stock units issued and outstanding	8,490,517	8,262,902
Class A common stock reserved for Twilio.org	795,673	572,676
Stock-based awards available for grant under 2016 Plan	14,957,734	9,313,354
Stock-based awards available for grant under 2016 ESPP	3,848,953	3,092,779
Class A common stock reserved for the convertible senior notes	10,472,165	10,472,165
Total	<u>46,270,890</u>	<u>39,692,245</u>

## 14. Stock-Based Compensation

### *2008 Stock Option Plan*

The Company maintained a stock plan, the 2008 Stock Option Plan, as amended and restated (the “2008 Plan”), which allowed the Company to grant incentive (“ISO”), non-statutory (“NSO”) stock options and restricted stock units (“RSU”) to its employees, directors and consultants to participate in the Company’s future performance through stock-based awards at the discretion of the board of directors. Under the 2008 Plan, options to purchase the Company’s common stock could not be granted at a price less than fair value in the case of ISOs and NSOs. Fair value was determined by the board of directors, in good faith, with input from valuation consultants. On June 22, 2016, the plan was terminated in connection with the Company’s IPO. Accordingly, no shares are available for future issuance under the 2008 Plan. The 2008 Plan continues to govern outstanding equity awards granted thereunder. The Company’s right of first refusal for outstanding equity awards granted under the 2008 Plan terminated upon completion of the IPO. Options granted include provisions for early exercisability.

### *2016 Stock Option Plan*

The Company’s 2016 Stock Option and Incentive Plan (the “2016 Plan”) became effective on June 21, 2016. The 2016 Plan provides for the grant of ISOs, NSOs, restricted stock, RSUs, stock appreciation rights, unrestricted stock awards, performance share awards, dividend equivalent rights and cash-based awards to employees, directors and consultants of the Company. A total of 11,500,000 shares of the Company’s Class A common stock were initially reserved for issuance under the 2016 Plan. These available shares automatically increase each January 1, beginning on January 1, 2017, by 5% of the number of shares of the Company’s Class A and Class B common stock outstanding on the immediately preceding December 31, or such lesser number of shares as determined by the Company’s compensation committee. On January 1, 2019 and 2018, the shares available for grant under the 2016 Plan were automatically increased by 5,004,011 shares and 4,698,490 shares, respectively.

Under the 2016 Plan, the stock options are granted at a price per share not less than 100% of the fair market value per share of the underlying common stock on the date of grant. Under both plans, stock options generally expire 10 years from the date of grant and vest over periods determined by the board of directors. The vesting period for new-hire options and restricted stock units is generally a four year term from the date of grant, at a rate of 25% after one year, then monthly or quarterly, respectively, on a straight-line basis thereafter. In July 2017, the Company began granting restricted stock units to existing employees that vest in equal quarterly installments over a four year service period.

### *SendGrid Equity Awards Assumed in Acquisition*

In connection with its acquisition of SendGrid, the Company assumed all stock options and restricted stock units issued under SendGrid’s 2009, 2012 or 2017 Stock Incentive Plans that were outstanding on the date of acquisition. The assumed equity awards will continue to be outstanding and will be governed by the provisions of their respective plans. Additionally, the Company assumed shares of SendGrid common stock that were reserved and available for issuance under SendGrid’s 2017 Equity Incentive Plan, on an as converted basis. These shares can be utilized for future equity grants under the Company’s 2016 Plan, to the extent permitted by New York Stock Exchange rules.

### *2016 Employee Stock Purchase Plan*

The Company's Employee Stock Purchase Plan ("2016 ESPP"), as amended, initially became effective on June 21, 2016. A total of 2,400,000 shares of the Company's Class A common stock were initially reserved for issuance under the 2016 ESPP. These available shares automatically increase each January 1, beginning on January 1, 2017, by the lesser of 1,800,000 shares of the common stock, 1% of the number of shares of the Company's Class A and Class B common stock outstanding on the immediately preceding December 31 or such lesser number of shares as determined by the Company's compensation committee. On January 1, 2019 and 2018, the shares available for grant under the 2016 ESPP were automatically increased by 1,000,802 shares and 939,698 shares, respectively.

The 2016 ESPP allows eligible employees to purchase shares of the Company's Class A common stock at a discount of up to 15% through payroll deductions of their eligible compensation, subject to any plan limitations. Except for the initial offering period, the 2016 ESPP provides for separate six-month offering periods beginning in May and November of each fiscal year, starting in May 2017.

On each purchase date, eligible employees purchase the Company's stock at a price per share equal to 85% of the lesser of (i) the fair market value of the Company's Class A common stock on the offering date or (ii) the fair market value of the Company's Class A common stock on the purchase date. As of December 31, 2019, total unrecognized compensation cost related to the 2016 ESPP was \$4.4 million, which will be amortized over a weighted-average period of 0.4 years.

Stock option activity under the Company's 2008 Plan and 2016 Plan as well as respective Stock Incentive Plans assumed in the SendGrid acquisition was as follows:

### Stock Options

	Number of options outstanding	Weighted-average exercise price (Per share)	Weighted-average remaining contractual term (in years)	Aggregate intrinsic value (In thousands)
Outstanding options as of December 31, 2018	7,423,369	\$ 16.07	6.80	\$ 543,640
Granted	909,229	118.35		
Assumed in acquisition	2,978,555	14.91		
Exercised	(3,620,866)	10.43		
Forfeited and canceled	(539,439)	51.28		
Outstanding options as of December 31, 2019	7,150,848	\$ 28.79	6.47	\$ 511,971
Options vested and exercisable as of December 31, 2019	4,721,801	\$ 14.00	5.65	\$ 398,490

	Year Ended December 31,		
	2019	2018	2017
	(In thousands, except per share amounts)		
Aggregate intrinsic value of stock options exercised <sup>(1)</sup>	\$ 394,998	\$ 178,504	\$ 131,955
Total estimated grant date fair value of options vested	\$ 81,292	\$ 21,761	\$ 15,831
Weighted-average grant date fair value per share of options granted	\$ 58.13	\$ 18.40	\$ 13.33

<sup>(1)</sup> Aggregate intrinsic value represents the difference between the fair value of the Company's Class A common stock as reported on the New York Stock Exchange and the exercise price of outstanding "in-the-money" options.

On February 28, 2017, the Company granted a total of 555,000 shares of performance-based stock options in three distinct awards to an employee with grant date fair values of \$13.48, \$10.26 and \$8.41 per share for a total grant value of \$5.9 million. The first half of each award vests upon satisfaction of a performance condition and the remainder vests thereafter in equal monthly installments over a two year period. The achievement window expires after 4.3 years from the date of grant and the stock options expire seven years after the date of grant. The stock options are amortized over a derived service period, as adjusted, of 3.1 years, 3.9 years and 4.6 years, respectively. The stock options value and the derived service period were estimated using the Monte-Carlo simulation model. The following table summarizes the details of the performance options:

	Number of options outstanding	Weighted- average exercise price (Per share)	Weighted- average remaining contractual term (in years)	Aggregate intrinsic value (In thousands)
Outstanding options as of December 31, 2018	555,000	\$ 31.72	6.00	\$ —
Granted	—	—		
Exercised	—	—		
Forfeited and canceled	—	—		
Outstanding options as of December 31, 2019	<u>555,000</u>	\$ 31.72	4.16	\$ 36,941
Options vested and exercisable as of December 31, 2019	<u>427,812</u>	\$ 31.72	4.16	\$ 28,475

As of December 31, 2019, total unrecognized compensation cost related to nonvested stock options was \$95.6 million, which will be amortized on a ratable basis over a weighted-average period of 1.9 years.

#### **Restricted Stock Units**

	Number of awards outstanding	Weighted- average grant date fair value (Per share)	Aggregate intrinsic value (In thousands)
Nonvested RSUs as of December 31, 2018	8,262,902	\$ 42.70	\$ 729,373
Granted	3,413,404	119.04	
Assumed in acquisition	561,999	112.88	
Vested	(2,893,119)	51.15	
Forfeited and canceled	<u>(854,669)</u>	\$ 61.94	
Nonvested RSUs as of December 31, 2019	<u>8,490,517</u>	\$ 74.21	\$ 830,167

As of December 31, 2019, total unrecognized compensation cost related to nonvested RSUs was \$573.2 million, which will be amortized over a weighted-average period of 2.7 years.

### Valuation Assumptions

The fair value of employee stock options was estimated on the date of grant using the following assumptions in the Black-Scholes option pricing model:

Employee Stock Options:	Year Ended December 31,		
	2019	2018	2017
Fair value of common stock	\$103.70 - \$130.70	\$33.01 - \$76.63	\$23.60 - \$31.96
Expected term (in years)	0.33 - 6.08	1.00 - 6.08	6.08
Expected volatility	49.0% - 66.5%	38.6% - 44.2%	44.3% - 47.6%
Risk-free interest rate	1.6% - 2.5%	2.9% - 3.0%	1.9% - 2.3%
Dividend rate	—%	—%	—%

Employee Stock Purchase Plan:	Year Ended December 31,		
	2019	2018	2017
Expected term (in years)	0.49 - 0.50	0.5	0.5
Expected volatility	43.1% - 50.3%	39.8% - 47.5%	33.2% - 33.9%
Risk-free interest rate	1.6% - 2.4%	2.1% - 2.5%	1.1% - 1.4%
Dividend rate	—%	—%	—%

The following assumptions were used in the Monte Carlo simulation model to estimate the grant date fair value and the derived service period of the performance options:

Asset volatility	40%
Equity volatility	45%
Discount rate	14%
Stock price at grant date	\$31.7

### Stock-Based Compensation Expense

The Company recorded the total stock-based compensation expense as follows. In the year ended December 31, 2019, the stock-based compensation expense associated with awards assumed in the SendGrid acquisition was \$81.8 million.

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Cost of revenue	\$ 7,123	\$ 1,126	\$ 650
Research and development	126,012	42,277	22,808
Sales and marketing	60,886	23,616	9,822
General and administrative	70,297	26,254	16,339
Total	\$ 264,318	\$ 93,273	\$ 49,619

## 15. Net Loss Per Share Attributable to Common Stockholders

Basic and diluted net loss per common share is presented in conformity with the two-class method required for participating securities.

Class A and Class B common stock are the only outstanding equity in the Company. The rights of the holders of Class A and Class B common stock are identical, except with respect to voting and conversion. Each share of Class A common stock is entitled to one vote per share and each share of Class B common stock is entitled to 10 votes per share. Shares of

Class B common stock may be converted into Class A common stock at any time at the option of the stockholder and are automatically converted into Class A common stock upon sale or transfer, subject to certain limited exceptions.

Basic net loss per share attributable to common stockholders is computed using the weighted-average number of common shares outstanding during the period. Diluted net loss per share attributable to common stockholders is computed using the weighted-average number of common shares and, if dilutive, potential common shares outstanding during the period. The dilutive effect of these potential common shares is reflected in diluted earnings per share by application of the treasury stock method.

The following table sets forth the calculation of basic and diluted net loss per share attributable to common stockholders during the periods presented:

	Year Ended December 31,		
	2019	2018	2017
	(In thousands, except share and per share data)		
Net loss attributable to common stockholders	\$ (307,063)	\$ (121,949)	\$ (63,708)
Weighted-average shares used to compute net loss per share attributable to common stockholders, basic and diluted	130,083,046	97,130,339	91,224,607
Net loss per share attributable to common stockholders, basic and diluted	\$ (2.36)	\$ (1.26)	\$ (0.70)

The following outstanding shares of common stock equivalents were excluded from the calculation of the diluted net loss per share attributable to common stockholders because their effect would have been anti-dilutive:

	As of December 31,		
	2019	2018	2017
Stock options issued and outstanding	7,705,848	7,978,369	10,710,427
Nonvested restricted stock units issued and outstanding	8,490,517	8,262,902	5,665,459
Class A common stock reserved for Twilio.org	795,673	572,676	635,014
Class A common stock committed under 2016 ESPP	207,792	113,312	235,372
Conversion spread <sup>(1)</sup>	3,150,647	233	—
Unvested shares subject to repurchase	—	1,250	5,214
Total	20,350,477	16,928,742	17,251,486

<sup>(1)</sup> Since the Company expects to settle the principal amount of its outstanding convertible senior notes in cash and any excess in shares of the Company's Class A common stock, the Company uses the treasury stock method for calculating any potential dilutive effect of the conversion spread on diluted net income per share, if applicable. The conversion spread will have a dilutive impact on diluted net income per share of Class A common stock when the average market price of the Company's Class A common stock for a given period exceeds the conversion price of \$70.90 per share for the Notes. The conversion spread is calculated using the average market price of Class A common stock during the period, consistent with the treasury stock method.

## 16. Income Taxes

The following table presents domestic and foreign components of loss before income taxes for the periods presented:

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
United States	\$ (328,902)	\$ (96,448)	\$ (46,737)
International	(33,314)	(24,710)	(16,266)
Loss before provision for income taxes	\$ (362,216)	\$ (121,158)	\$ (63,003)

Provision for income taxes consists of the following:

	Year Ended December 31,		
	2019	2018	2017
Current:	(In thousands)		
Federal	\$ —	\$ —	\$ 99
State	198	139	78
Foreign	2,684	881	823
Total	2,882	1,020	1,000
Deferred:			
Federal	(49,393)	29	28
State	(7,474)	19	10
Foreign	(1,168)	(277)	(333)
Total	(58,035)	(229)	(295)
Income tax provision (benefit)	\$ (55,153)	\$ 791	\$ 705

The following table presents a reconciliation of the statutory federal tax rate and the Company's effective tax rate:

	Year Ended December 31,		
	2019	2018	2017
Tax benefit at federal statutory rate	21 %	21 %	34 %
State tax, net of federal benefit	8	15	10
Stock-based compensation	14	31	47
Credits	4	8	8
Foreign rate differential	(2)	(4)	(8)
Change in valuation allowance	(29)	(68)	(46)
Change in federal statutory rate	—	—	(45)
Other	(1)	(3)	(1)
Effective tax rate	15 %	— %	(1)%



Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The following table presents the significant components of the Company's deferred tax assets and liabilities:

	As of December 31,		
	2019	2018	2017
(In thousands)			
<b>Deferred tax assets:</b>			
Net operating loss carryforwards	\$ 274,116	\$ 116,190	\$ 56,138
Accrued and prepaid expenses	11,828	11,594	9,140
Stock-based compensation	35,035	11,147	7,131
Research and development credits	65,955	32,206	16,212
Charitable contributions	3,172	3,100	1,233
Capped call	9,914	13,175	—
Debt issuance cost	493	638	—
Depreciable property	2	—	—
Lease liability	39,117	—	—
Other	—	194	472
Gross deferred tax assets	439,632	188,244	90,326
Valuation allowance	(255,893)	(147,354)	(78,900)
Net deferred tax assets	183,739	40,890	11,426
<b>Deferred tax liabilities:</b>			
Capitalized software	(13,032)	(10,686)	(7,664)
Prepaid expenses	(1,157)	(838)	(1,015)
Acquired intangibles	(107,281)	(2,997)	(2,101)
Property and equipment	(1,578)	(1,990)	(2,380)
Convertible debt	(20,745)	(27,164)	—
Right-of-use asset	(39,630)	—	—
Deferred commissions	(7,446)	(2,396)	(718)
Other	(405)	—	—
Net deferred tax liability	\$ (7,535)	\$ (5,181)	\$ (2,452)

The following table summarizes our tax carryforwards, carryovers, and credits:

	As of December 31, 2019	Expiration Date (If not utilized)
(In thousands)		
Federal net operating loss carryforwards	\$ 1,159,329	Various dates beginning in 2029
Federal tax credits	\$ 58,404	Various dates beginning in 2029
Federal net operating loss carryforwards	\$ 902,507	Indefinite
State net operating loss carryforwards	\$ 630,151	Various dates beginning in 2025
State tax credits	\$ 38,817	Indefinite
Foreign net operating loss carryforwards	\$ 13,772	Indefinite

A limitation may apply to the use of the net operating loss and credit carryforwards, under provisions of the Internal Revenue Code of 1986, as amended, and similar state tax provisions that are applicable if the Company experiences an "ownership change." An ownership change may occur, for example, as a result of issuance of new equity. Should these limitations apply, the carryforwards would be subject to an annual limitation, resulting in a potential reduction in the gross deferred tax assets before considering the valuation allowance.

The Company's accounting for deferred taxes involves the evaluation of a number of factors concerning the realizability of its net deferred tax assets. The Company primarily considered such factors as its history of operating losses, the nature of the Company's deferred tax assets, and the timing, likelihood and amount, if any, of future taxable income during the periods in which those temporary differences and carryforwards become deductible. At present, the Company does not believe that it is more likely than not that the net deferred tax assets will be realized, accordingly, a full valuation allowance has been

established. The valuation allowance increased by approximately \$108.5 million and \$68.5 million during the years ended December 31, 2019 and 2018, respectively.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
Unrecognized tax benefit, beginning of year	\$ 15,635	\$ 9,445	\$ 12,275
Gross increases for tax positions of prior years	12,939	1,233	493
Gross decrease for tax positions of prior years	(395)	(4)	(6,331)
Gross increases for tax positions of current year	20,863	4,961	3,008
Unrecognized tax benefit, end of year	<u>\$ 49,042</u>	<u>\$ 15,635</u>	<u>\$ 9,445</u>

As of December 31, 2019, the Company had approximately \$49.0 million of unrecognized tax benefits. If the \$49.0 million is recognized, \$1.7 million would affect the effective tax rate. The remaining amount would be offset by the reversal of related deferred tax assets which are subject to a full valuation allowance.

The Company recognizes interest and penalties, if any, related to uncertain tax positions in its income tax provision. As of December 31, 2019, the Company has accumulated \$0.2 million in both interest and penalties related to uncertain tax positions.

The Company does not anticipate any significant changes within 12 months of December 31, 2019, in its uncertain tax positions that would be material to the consolidated financial statements taken as a whole because nearly all of the unrecognized tax benefit has been offset by a deferred tax asset, which has been reduced by a valuation allowance.

The Company files U.S. federal income tax returns as well as income tax returns in many U.S. states and foreign jurisdictions. As of December 31, 2019, the tax years 2008 through the current period remain open to examination by the major jurisdictions in which the Company is subject to tax. Fiscal years outside the normal statute of limitation remain open to audit by tax authorities due to tax attributes generated in those early years, which have been carried forward and may be audited in subsequent years when utilized. The Company is not currently subject to U.S. federal, state and local, or non-U.S. income tax examinations by any tax authorities.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (Tax Act). The Tax Act reduces the U.S. statutory corporate tax rate to 21%, effective January 1, 2018. Consequently, we recorded a decrease to the Company's federal deferred tax assets of \$28.0 million, which was fully offset by a reduction in the Company's valuation allowance for the year ended December 31, 2017. The other provisions of the Tax Act, including the one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings, did not have a material impact on the Company's financial statements as of December 31, 2019 or 2018.

In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act (SAB 118), which allowed companies to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. The Company's accounting for the Tax Act is complete and we did not have any significant adjustments to provisional amounts recorded as of December 31, 2017.

The Tax Act creates a new requirement that certain income (i.e., GILTI) earned by controlled foreign corporations (CFCs) must be included currently in the gross income of the CFCs' U.S. shareholder. Under U.S. GAAP, the Company is allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the "period cost method") or (2) factoring such amounts into the measurement of its deferred taxes (the "deferred method"). The Company selected the period cost method.

In connection with the SendGrid acquisition, the Company recorded a net deferred tax liability which provides an additional source of taxable income to support the realization of the pre-existing deferred tax assets and, accordingly, during the year ended December 31, 2019, the Company released a total of \$55.0 million of its U.S. valuation allowance. The Company continues to maintain a valuation allowance for its U.S. Federal and State net deferred tax assets.

The provision for income taxes recorded in the years ended December 31, 2018 and 2017, consists primarily of income taxes and withholding taxes in foreign jurisdictions in which the Company conducts business. The Company's U.S.

operations have been in a loss position and the Company maintains a full valuation allowance against its U.S. deferred tax assets.

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

None.

**Item 9A. Controls and Procedures**

**(a) Evaluation of Disclosure Controls and Procedures**

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as 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 this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2019, our disclosure controls and procedures were effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

**(b) Management's Annual Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act. Internal control over financial reporting is a process designed under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, to provide reasonable assurance regarding the reliability of financing reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

Under the supervision and with the participation of our Chief Executive Officer and our Chief Financial Officer and oversight of the board of directors, our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2019, based on the criteria set forth in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2019.

The Company acquired SendGrid, Inc. ("SendGrid") on February 1, 2019. Management excluded SendGrid from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. SendGrid's total assets excluded from this assessment was \$271.4 million, representing 5% of the Company's consolidated total assets as of December 31, 2019, and SendGrid's total revenue of \$177.1 million represented 16% of the Company's consolidated revenue for the year ended December 31, 2019.

The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report which is included in Part II, Item 8, "Financial Statements and Supplementary Data", of this Annual Report on Form 10-K.

**(c) Changes in Internal Control**

There were no changes in our internal control over financial reporting in connection with the evaluation required by Rule 13a-15 (d) and 15d-15 (d) of the Exchange Act that occurred during the quarter ended December 31, 2019 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**(d) Inherent Limitations on Effectiveness of Controls**

Our management, including our Chief Executive Officer and Chief 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, within the Company 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**

The information required by this item is incorporated by reference to our Proxy Statement relating to our 2020 Annual Meeting of Stockholders. The Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of the fiscal year ended December 31, 2019.

**Codes of Business Conduct and Ethics**

Our board of directors has adopted a Code of Business Conduct and Ethics that applies to all officers, directors and employees, which is available on our website at ([investors.twilio.com](http://investors.twilio.com)) under "Governance Documents". We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding amendments to, or waiver from, a provision of our Code of Business Conduct and Ethics and by posting such information on the website address and location specified above.

**Item 11. Executive Compensation**

The information required by this item is incorporated by reference to our Proxy Statement relating to our 2020 Annual Meeting of Stockholders. The Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of the fiscal year ended December 31, 2019.

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

The information required by this item is incorporated by reference to our Proxy Statement relating to our 2020 Annual Meeting of Stockholders. The Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of the fiscal year ended December 31, 2019.

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

The information required by this item is incorporated by reference to our Proxy Statement relating to our 2020 Annual Meeting of Stockholders. The Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of the fiscal year ended December 31, 2019.

**Item 14. Principal Accountant Fees and Services**

The information required by this item is incorporated by reference to our Proxy Statement relating to our 2020 Annual Meeting of Stockholders. The Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of the fiscal year ended December 31, 2019.

**PART IV**

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

(a) The following documents are filed as part of this report:

1. Financial Statements

See Index to Financial Statements at Item 8 herein.

2. Financial Statement Schedules

Schedules not listed above have been omitted because they are not required, not applicable, or the required information is otherwise included.

3. Exhibits

The exhibits listed below are filed as part of this Annual Report on Form 10-K or are incorporated herein by reference, in each case as indicated below.

**EXHIBIT INDEX**

Exhibit Number	Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
2.1+	<a href="#">Agreement and Plan of Merger and Reorganization, dated October 15, 2018, by and among Twilio Inc., a Delaware corporation, SendGrid, Inc., a Delaware corporation, and Topaz Merger Subsidiary, Inc., a Delaware corporation</a>	8-K	011-37806	2.1	October 16, 2018
2.2	<a href="#">First Amendment to Agreement and Plan of Merger and Reorganization, dated December 13, 2018, by and among Twilio Inc., a Delaware corporation, SendGrid, Inc., a Delaware corporation, and Topaz Merger Subsidiary, Inc., a Delaware corporation</a>	10-K	001-37806	2.2	March 1, 2019
3.1	<a href="#">Amended and Restated Certificate of Incorporation of Twilio Inc.</a>	S-1A	333-211634	3.1	June 13, 2016
3.2	<a href="#">Amended and Restated Bylaws of Twilio Inc.</a>	S-1A	333-211634	3.3	June 13, 2016
4.1	<a href="#">Form of Class A Common Stock Certificate of Twilio Inc.</a>	S-1	333-211634	4.1	May 26, 2016
4.2	<a href="#">Amended and Restated Investors' Rights Agreement, dated April 24, 2015, between Twilio Inc. and certain of its stockholders</a>	S-1	333-211634	4.2	May 26, 2016
4.3	<a href="#">Indenture, dated as of May 17, 2018, between Twilio Inc. and Wilmington Trust, National Association, as trustee</a>	8-K	001-37806	4.1	May 18, 2018
4.4	<a href="#">Form of 0.25% Convertible Senior Notes due 2023 (included in Exhibit 4.3)</a>	8-K	001-37806	4.2	May 18, 2018
4.5	<a href="#">Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934</a>				Filed herewith
10.1*	<a href="#">Form of Indemnification Agreement</a>	S-1A	333-211634	10.1	June 13, 2016
10.2*	<a href="#">Twilio Inc. 2008 Stock Option Plan, as amended and restated, and forms of Stock Option Agreement and form of Stock Option Grant Notice</a>	S-1	333-211634	10.2	May 26, 2016
10.3*	<a href="#">Twilio Inc. Amended and Restated 2016 Stock Option and Incentive Plan, and forms of Agreements thereunder</a>				Filed herewith
10.4*	<a href="#">Twilio Inc. 2019 France Sub-Plan to the 2016 Stock Option and Incentive Plan</a>	10-Q	001-37806	10.2	October 31, 2019
10.5*	<a href="#">Twilio Inc. Amended and Restated 2016 Employee Stock Purchase Plan</a>	10-Q	001-37806	10.1	October 31, 2019
10.6	<a href="#">Office Lease, dated January 8, 2016, as amended January 8, 2016, between Twilio Inc. and Bay Area Headquarters Authority</a>	S-1	333-211634	10.6	May 26, 2016
10.7	<a href="#">Sublease, dated as of August 30, 2018, by and between Salesforce.com, Inc. and Twilio Inc.</a>	10-Q	001-37806	10.1	November 8, 2018
10.8	<a href="#">Consent to Sublease Agreement, dated as of September 25, 2018, by and among Hudson Rincon Center, LLC, Salesforce.com Inc. and Twilio Inc.</a>	10-Q	001-37806	10.2	November 8, 2018
10.9*	<a href="#">Offer letter with George Hu, dated February 28, 2017</a>	8-K	001-37806	10.1	March 3, 2017
10.10*	<a href="#">Offer letter with Khozema Shipchandler, dated August 20, 2018</a>	8-K	001-37806	10.1	October 25, 2018
10.11*	<a href="#">Chief Executive Officer Severance Plan dated March 28, 2018 and form of participation letter</a>	10-Q	001-37806	10.1	May 10, 2018
10.12*	<a href="#">Key Executive Severance Plan, dated March 28, 2018 and form of participation letter</a>	10-Q	001-37806	10.2	May 10, 2018
10.13	<a href="#">Form of Capped Call Confirmation</a>	8-K	001-37806	10.1	May 18, 2018
21.1	<a href="#">List of subsidiaries of the Registrant</a>				Filed herewith
23.1	<a href="#">Consent of KPMG, LLP, Independent Registered Public Accounting Firm</a>				Filed herewith
31.1	<a href="#">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</a>				Filed herewith
31.2	<a href="#">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</a>				Filed herewith
32.1**	<a href="#">Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</a>				Furnished herewith

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101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document	Filed herewith
101.SCH	Inline XBRL Taxonomy Extension Schema Document.	Filed herewith
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.	Filed herewith
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.	Filed herewith
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	Filed herewith
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.	Filed herewith
104	Cover Page with Interactive Data File (formatted as Inline XBRL with applicable taxonomy extension information contained in Exhibits 101).	

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+ Schedules and other similar attachments have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The registrant hereby undertakes to furnish supplemental copies of any of the omitted schedules and other similar attachments upon request by the Securities and Exchange Commission.

\* Indicates a management contract or compensatory plan or arrangement.

\*\* The certifications furnished in Exhibit 32.1 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 Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

March 2, 2020	Twilio Inc. /s/ JEFFREY LAWSON Jeffrey Lawson Director and Chief Executive Officer (Principal Executive Officer)
March 2, 2020	/s/ KHOZEMA SHIPCHANDLER Khozema Shipchandler Chief Financial Officer (Principal Accounting and Financial Officer)
March 2, 2020	/s/ RICHARD DALZELL Richard Dalzell Director
March 2, 2020	/s/ BYRON DEETER Byron Deeter Director
March 2, 2020	/s/ ELENA DONIO Elena Donio Director
March 2, 2020	/s/ DONNA L. DUBINSKY Donna L. Dubinsky Director
March 2, 2020	/s/ JEFFREY EPSTEIN Jeffrey Epstein Director
March 2, 2020	/s/ JEFFREY IMMELT Jeffrey Immelt Director
March 2, 2020	/s/ ERIKA ROTTENBERG Erika Rottenberg Director



**DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES  
EXCHANGE ACT OF 1934**

*As of December 31, 2019, Twilio Inc. ("Twilio," the "Company," "we," "us," and "our") had one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: our Class A common stock, par value \$0.001 per share.*

**DESCRIPTION OF CAPITAL STOCK**

**General**

The following description summarizes certain important terms of the capital stock of Twilio, as they are currently in effect. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description of the matters set forth in this section titled "Description of Capital Stock," you should refer to Twilio's amended and restated certificate of incorporation, amended and restated bylaws and amended and restated investors' rights agreement and to the applicable provisions of Delaware law. Twilio's authorized capital stock consists of 1,200,000,000 shares of capital stock, \$0.001 par value per share, of which:

- 1,000,000,000 shares are designated as Class A common stock;
- 100,000,000 shares are designated as Class B common stock; and
- 100,000,000 shares are designated as preferred stock.

The Twilio board of directors ("Board") is authorized, without stockholder approval except as required by the listing standards of the New York Stock Exchange, to issue additional shares of capital stock.

Our Class A common stock is listed on the New York Stock Exchange under the symbol "TWLO."

**Common Stock**

The outstanding shares of Twilio's common stock are fully paid and non-assessable.

***Dividend Rights***

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of Twilio Class A and Class B common stock are entitled to receive dividends out of funds legally available if the Twilio Board, in its discretion, determines to issue dividends and then only at the times and in the amounts that the Twilio Board may determine.

***Voting Rights***

Holders of Twilio Class A common stock are entitled to one vote for each share of Twilio Class A common stock held on all matters submitted to a vote of stockholders and holders of Twilio Class B common stock are entitled to 10 votes for each share of Twilio Class B common stock held on all matters submitted to a vote of stockholders. Holders of shares of Twilio Class A common stock and Twilio Class B common stock vote together as a single class on all matters (including the election of directors) submitted to a vote of stockholders, unless otherwise required by law. Twilio has not provided for cumulative voting for the election of directors in its amended and restated certificate of incorporation. Its amended and restated certificate of incorporation and amended and restated bylaws provide for a classified board of directors consisting of three classes of approximately equal size, each serving staggered three-year terms.

***No Preemptive or Similar Rights***

Twilio Class A and Class B common stock are not entitled to preemptive rights, and are not subject to conversion, redemption or sinking fund provisions, except for the conversion provisions with respect to the Class B common stock described below.

***Right to Receive Liquidation Distributions***

If Twilio becomes subject to a liquidation, dissolution or winding-up, the assets legally available for distribution to Twilio stockholders would be distributable ratably among the holders of Twilio Class A and Class B common stock and any participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

***Conversion***

Each outstanding share of Twilio Class B common stock is convertible at any time at the option of the holder into one share of Twilio Class A common stock. In addition, each share of Twilio Class B common stock will convert automatically into one share of Twilio Class A common stock upon any transfer, whether or not for value, except for certain permitted transfers described in Twilio's amended and restated certificate of incorporation, including transfers to family members, trusts solely for the benefit of the stockholder or their family members, and partnerships, corporations, and other entities exclusively owned by the stockholder or their family members. Once converted or transferred and converted into Twilio Class A common stock, the Twilio Class B common stock will not be reissued.

All the outstanding shares of Twilio Class A and Class B common stock will convert automatically into shares of a single class of common stock on the earlier of June 28, 2023 or the date the holders of two-thirds of Twilio Class B common stock elect to convert the Class B common stock to Class A common stock. Following such conversion, each share of common stock will have one vote per share and the rights of the holders of all outstanding common stock will be identical. Once converted into a single class of common stock, the Class A and Class B common stock may not be reissued.

**Preferred Stock - Limitations on Rights of Holders of Common Stock**

The Twilio Board is authorized, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations or restrictions, in each case without further vote or action by Twilio stockholders. The Twilio Board can also increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding, without any further vote or action by Twilio stockholders. The Twilio Board may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of Twilio Class A or Class B common stock.

**Listing Agent**

The transfer agent and registrar for Twilio Class A common stock and Twilio Class B common stock is Computershare Trust Company, N.A.

**Anti-Takeover Provisions**

The provisions of Delaware law, Twilio's amended and restated certificate of incorporation and Twilio's amended and restated bylaws, which are summarized below, may have the effect of delaying, deferring or discouraging another person from acquiring control of the company. They are also designed, in part, to encourage persons seeking to acquire control of Twilio to negotiate first with the Twilio Board. Twilio believes that the benefits of increased protection of its potential ability to negotiate with an unfriendly or unsolicited acquiror outweigh the disadvantages of discouraging a proposal to acquire it because negotiation of these proposals could result in an improvement of their terms.

**Delaware Law**

Twilio is governed by the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- the transaction was approved by the board of directors prior to the time that the stockholder became an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding shares owned by directors who are also officers of the corporation and shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the time the stockholder became an interested stockholder, the business combination was approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

In general, Section 203 defines a "business combination" to include mergers, asset sales and other transactions resulting in financial benefit to a stockholder and an "interested stockholder" as a person who, together with affiliates and associates, owns, or within three years did own, 15% or more of the corporation's outstanding voting stock. These provisions may have the effect of delaying, deferring or preventing changes in control of Twilio.

**Amended and Restated Certificate of Incorporation and Amended and Restated Bylaw Provisions**

Twilio's amended and restated certificate of incorporation and amended and restated bylaws include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of the company, as well as changes in the Twilio Board or management team, including the following:

*Board of Directors Vacancies.* Twilio's amended and restated certificate of incorporation and amended and restated bylaws authorize only the Twilio Board to fill vacant directorships, including newly created seats. In addition, the number of directors constituting the Twilio Board is permitted to be set only by a resolution adopted by a majority vote of the entire Twilio Board. These provisions prevent a stockholder from increasing the size of the Twilio Board and then gaining control of the Twilio Board by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of the Twilio Board and will promote continuity of management.

*Dual Class Common Stock.* As described above in the section titled "—Common Stock—Voting Rights," Twilio's amended and restated certificate of incorporation provides for a dual class common stock structure pursuant to which holders of its Class B common stock have the ability to control the outcome of matters requiring stockholder approval, even if they own significantly less than a majority of the shares of the outstanding Class A and Class B common stock, including the election of directors and significant corporate transactions, such as a merger or other sale of the company or its assets. Current investors, executives and employees have the ability to exercise significant influence over those matters.

*Classified Board.* Twilio's amended and restated certificate of incorporation and amended and restated bylaws provide that the Twilio Board be classified into three classes of directors, each of which hold office for a three-year term. In addition, directors may only be removed from the Twilio Board for cause. The existence of a classified board could delay a potential acquiror from obtaining majority control of the Twilio Board, and the prospect of that delay might deter a potential acquiror.

*Stockholder Action; Special Meeting of Stockholders.* Twilio's amended and restated certificate of incorporation provides that its stockholders may not take action by written consent, but may only take action at annual or special meetings of stockholders. As a result, a holder controlling a majority of Twilio's capital stock would not be able to amend Twilio's amended and restated bylaws or remove directors without holding a meeting of stockholders called in accordance with Twilio's amended and restated bylaws. Twilio's amended and restated bylaws further provide that special meetings of stockholders may be called only by a majority of the Twilio Board, the chairman of the Twilio Board, Twilio's Chief Executive Officer or its President, thus prohibiting a stockholder from calling a special meeting. These provisions might delay the ability of Twilio stockholders to force consideration of a proposal or for stockholders controlling a majority of Twilio's capital stock to take any action, including the removal of directors.

*Advance Notice Requirements for Stockholder Proposals and Director Nominations.* Twilio's amended and restated bylaws provide advance notice procedures for stockholders seeking to bring business before its annual meeting of stockholders or to nominate candidates for election as directors at its annual meeting of stockholders. Twilio's amended and restated bylaws also specify certain requirements regarding the form and content of a stockholder's notice. These provisions might preclude Twilio stockholders from bringing matters before its annual meeting of stockholders or from making nominations for directors at its annual meeting of stockholders if the proper procedures are not followed. These provisions may also discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of Twilio.

*No Cumulative Voting.* The Delaware General Corporation Law provides that stockholders are not entitled to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Twilio's amended and restated certificate of incorporation does not provide for cumulative voting.

*Directors Removed Only for Cause.* Twilio's amended and restated certificate of incorporation provides that stockholders may remove directors only for cause.

*Amendment of Charter Provisions.* Any amendment of the above provisions in Twilio's amended and restated certificate of incorporation requires approval by holders of at least two-thirds of the then-outstanding capital stock.

*Issuance of Undesignated Preferred Stock.* The Twilio Board has the authority, without further action by the Twilio stockholders, to issue up to 100,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by the Twilio Board. The existence of authorized but unissued shares of preferred stock would enable the Twilio Board to render more difficult or to discourage an attempt to obtain control of Twilio by means of a merger, tender offer, proxy contest or other means.

## TWILIO INC.

## AMENDED AND RESTATED 2016 STOCK OPTION AND INCENTIVE PLAN

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the Twilio Inc. 2016 Stock Option and Incentive Plan (the “Plan”). The purpose of the Plan is to encourage and enable the officers, employees, Non-Employee Directors and Consultants of Twilio Inc. (the “Company”) and its Subsidiaries upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its businesses to acquire a proprietary interest in the Company. It is anticipated that providing such persons with a direct stake in the Company’s welfare will assure a closer identification of their interests with those of the Company and its stockholders, thereby stimulating their efforts on the Company’s behalf and strengthening their desire to remain with the Company.

The following terms shall be defined as set forth below:

“Act” means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

“Administrator” means either the Board or the compensation committee of the Board or a similar committee performing the functions of the compensation committee and which is comprised of not less than two Non-Employee Directors who are independent.

“Award” or “Awards,” except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Units, Restricted Stock Awards, Unrestricted Stock Awards, Cash-Based Awards, Performance Share Awards and Dividend Equivalent Rights.

“Award Certificate” means a written or electronic document setting forth the terms and provisions applicable to an Award granted under the Plan. Each Award Certificate is subject to the terms and conditions of the Plan.

“Board” means the Board of Directors of the Company.

“Cash-Based Award” means an Award entitling the recipient to receive a cash-denominated payment.

“Code” means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

“Consultant” means any natural person that provides bona fide services to the Company, and such services are not in connection with the offer or sale of securities in a capital-raising transaction and do not directly or indirectly promote or maintain a market for the Company’s securities.

“Covered Employee” means an employee who is a “Covered Employee” within the meaning of Section 162(m) of the Code.

“*Dividend Equivalent Right*” means an Award entitling the grantee to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other award to which it relates) if such shares had been issued to and held by the grantee.

“*Effective Date*” means the date on which the Plan becomes effective as set forth in Section 21.

“*Exchange Act*” means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

“*Fair Market Value*” of the Stock on any given date means the fair market value of the Stock determined in good faith by the Administrator; provided, however, that if the Stock is admitted to quotation on the New York Stock Exchange (the “NYSE”) or another national securities exchange, the determination shall be made by reference to market quotations. If there are no market quotations for such date, the determination shall be made by reference to the last date preceding such date for which there are market quotations; provided further, however, that if the date for which Fair Market Value is determined is the first day when trading prices for the Stock are reported on the NYSE or another national securities exchange, the Fair Market Value shall be the “Price to the Public” (or equivalent) set forth on the cover page for the final prospectus relating to the Company’s Initial Public Offering.

“*Incentive Stock Option*” means any Stock Option designated and qualified as an “incentive stock option” as defined in Section 422 of the Code.

“*Initial Public Offering*” means the first underwritten, firm commitment public offering pursuant to an effective registration statement under the Act covering the offer and sale by the Company of its equity securities, or such other event as a result of or following which the Stock shall be publicly held.

“*Non-Employee Director*” means a member of the Board who is not also an employee of the Company or any Subsidiary.

“*Non-Qualified Stock Option*” means any Stock Option that is not an Incentive Stock Option.

“*Option*” or “*Stock Option*” means any option to purchase shares of Stock granted pursuant to Section 5.

“*Performance-Based Award*” means any Restricted Stock Award, Restricted Stock Units, Performance Share Award or Cash-Based Award granted to a Covered Employee that is intended to qualify as “performance-based compensation” under Section 162(m) of the Code and the regulations promulgated thereunder.

“*Performance Criteria*” means the criteria that the Administrator selects for purposes of establishing the Performance Goal or Performance Goals for an individual for a Performance Cycle. The Performance Criteria (which shall be applicable to the organizational level specified by the Administrator, including, but not limited to, the Company or a unit, division, group, or Subsidiary of the Company) that will be used to establish Performance Goals are limited to the following: sales or revenue or bookings; sales or revenue or bookings mix; sales or market shares; expense; margins; operating efficiency; earnings before interest, taxes, depreciation and amortization; net income (loss) (either before or after interest, taxes, depreciation and/or amortization); operating income (loss); earnings (loss) per share of Stock; working capital; operating cash flow (funds from operations) and free cash flow; customer satisfaction, Net Promoter Score; customer churn; number of customers; customer retention and expansion; return on sales, gross or net profit levels; return on capital, assets, equity, or investment; changes in the market price

of the Stock; total shareholder return; quality and reliability; productivity; economic value-added; and acquisitions or strategic transactions, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group. The Committee may appropriately adjust any evaluation performance under a Performance Criterion to exclude any of the following events that occurs during a Performance Cycle: (i) asset write-downs or impairments, (ii) litigation or claim judgments or settlements, (iii) the effect of changes in tax law, accounting principles or other such laws or provisions affecting reporting results, (iv) accruals for reorganizations and restructuring programs, and (v) any item of an unusual nature or of a type that indicates infrequency of occurrence, or both, including those described in the Financial Accounting Standards Board's authoritative guidance and/or in management's discussion and analysis of financial condition of operations appearing the Company's annual report to stockholders for the applicable year.

*"Performance Cycle"* means one or more periods of time, which may be of varying and overlapping durations, as the Administrator may select, over which the attainment of one or more Performance Criteria will be measured for the purpose of determining a grantee's right to and the payment of a Restricted Stock Award, Restricted Stock Units, Performance Share Award or Cash-Based Award, the vesting and/or payment of which is subject to the attainment of one or more Performance Goals. Each such period shall not be less than 12 months.

*"Performance Goals"* means, for a Performance Cycle, the specific goals established in writing by the Administrator for a Performance Cycle based upon the Performance Criteria.

*"Performance Share Award"* means an Award entitling the recipient to acquire shares of Stock upon the attainment of specified performance goals.

*"Restricted Shares"* means the shares of Stock underlying a Restricted Stock Award that remain subject to a risk of forfeiture or the Company's right of repurchase.

*"Restricted Stock Award"* means an Award of Restricted Shares subject to such restrictions and conditions as the Administrator may determine at the time of grant.

*"Restricted Stock Units"* means an Award of stock units subject to such restrictions and conditions as the Administrator may determine at the time of grant.

*"Sale Event"* shall mean (i) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (ii) a merger, reorganization or consolidation pursuant to which the holders of the Company's outstanding voting power and outstanding stock immediately prior to such transaction do not own a majority of the outstanding voting power and outstanding stock or other equity interests of the resulting or successor entity (or its ultimate parent, if applicable) immediately upon completion of such transaction, (iii) the sale of all of the Stock of the Company to an unrelated person, entity or group thereof acting in concert, or (iv) any other transaction in which the owners of the Company's outstanding voting power immediately prior to such transaction do not own at least a majority of the outstanding voting power of the Company or any successor entity immediately upon completion of the transaction other than as a result of the acquisition of securities directly from the Company.

*"Sale Price"* means the value as determined by the Administrator of the consideration payable, or otherwise to be received by stockholders, per share of Stock pursuant to a Sale Event.

*"Section 409A"* means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

“*Stock*” means the Class A common stock, par value \$0.001 per share, of the Company, subject to adjustments pursuant to Section 3.

“*Stock Appreciation Right*” means an Award entitling the recipient to receive shares of Stock having a value equal to the excess of the Fair Market Value of the Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

“*Subsidiary*” means any corporation or other entity (other than the Company) in which the Company has at least a 50 percent interest, either directly or indirectly.

“*Ten Percent Owner*” means an employee who owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent or subsidiary corporation.

“*Unrestricted Stock Award*” means an Award of shares of Stock free of any restrictions.

## SECTION 2. ADMINISTRATION OF PLAN; ADMINISTRATOR AUTHORITY TO SELECT GRANTEEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Administrator.

(b) Powers of Administrator. The Administrator shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

(i) to select the individuals to whom Awards may from time to time be granted;

(ii) to determine the time or times of grant, and the extent, if any, of Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Awards, Restricted Stock Units, Unrestricted Stock Awards, Cash-Based Awards, Performance Share Awards and Dividend Equivalent Rights, or any combination of the foregoing, granted to any one or more grantees;

(iii) to determine the number of shares of Stock to be covered by any Award;

(iv) to determine and modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and grantees, and to approve the forms of Award Certificates;

(v) to accelerate at any time the exercisability or vesting of all or any portion of any Award;

(vi) subject to the provisions of Section 5(c), to extend at any time the period in which Stock Options may be exercised; and

(vii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including related written instruments); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.



All decisions and interpretations of the Administrator shall be binding on all persons, including the Company and Plan grantees.

(c) Delegation of Authority to Grant Awards. Subject to applicable law, the Administrator, in its discretion, may delegate to the Chief Executive Officer and/or any other officer or a committee comprised of one or more officers of the Company, all or part of the Administrator's authority and duties with respect to the granting of Awards to individuals who are (i) not subject to the reporting and other provisions of Section 16 of the Exchange Act and (ii) not Covered Employees. Any such delegation by the Administrator shall include a limitation as to the amount of Stock underlying Awards that may be granted during the period of the delegation and shall contain guidelines as to the determination of the exercise price and the vesting criteria. The Administrator may revoke or amend the terms of a delegation at any time but such action shall not invalidate any prior actions of the Administrator's delegate or delegates that were consistent with the terms of the Plan.

(d) Award Certificate. Awards under the Plan shall be evidenced by Award Certificates that set forth the terms, conditions and limitations for each Award which may include, without limitation, the term of an Award and the provisions applicable in the event employment or service terminates.

(e) Indemnification. Neither the Board nor the Administrator, nor any member of either or any delegate thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the Plan, and the members of the Board and the Administrator (and any delegate thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under the Company's articles or bylaws or any directors' and officers' liability insurance coverage which may be in effect from time to time and/or any indemnification agreement between such individual and the Company.

(f) Non-U.S. Award Recipients. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and its Subsidiaries operate or have employees or other individuals eligible for Awards, the Administrator, in its sole discretion, shall have the power and authority to: (i) determine which Subsidiaries shall be covered by the Plan; (ii) determine which individuals outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to individuals outside the United States to comply with applicable foreign laws; (iv) establish subplans and modify exercise procedures and other terms and procedures, to the extent the Administrator determines such actions to be necessary or advisable (and such subplans and/or modifications shall be attached to this Plan as appendices); provided, however, that no such subplans and/or modifications shall increase the share limitations contained in Section 3(a) hereof; and (v) take any action, before or after an Award is made, that the Administrator determines to be necessary or advisable to obtain approval or comply with any local governmental regulatory exemptions or approvals. Notwithstanding the foregoing, the Administrator may not take any actions hereunder, and no Awards shall be granted, that would violate the Exchange Act or any other applicable United States securities law, the Code, or any other applicable United States governing statute or law.

### SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS; SUBSTITUTION

(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 11,500,000 shares (the "Initial Limit"), plus on January 1, 2017 and each January 1 thereafter, the number of shares of Stock reserved and available for issuance under the Plan shall be cumulatively increased by 5 percent of the number of shares of Class A and Class B common

stock of the Company issued and outstanding on the immediately preceding December 31 or such lesser number of shares of Stock as determined by the Administrator in its sole discretion (the "Annual Increase"), subject, in each case, to adjustment as provided in Section 3(c). Subject to such overall limitation, the maximum aggregate number of shares of Stock that may be issued in the form of Incentive Stock Options shall not exceed the Initial Limit cumulatively increased on January 1, 2017 and on each January 1 thereafter by the lesser of the Annual Increase for such year or 5,750,000 shares of Stock, subject in all cases to adjustment as provided in this Section 3. For purposes of this limitation, the shares of Stock underlying any Awards under the Plan or the shares of Class B common stock of the Company under the Company's 2008 Stock Option Plan, as amended and restated, that are forfeited, canceled, held back upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding, reacquired by the Company prior to vesting, satisfied without the issuance of stock or otherwise terminated (other than by exercise) shall be added back to the shares of Stock available for issuance under the Plan (provided, that any such shares of Class B common stock of the Company shall first be converted to shares of Class A common stock of the Company). In the event the Company repurchases shares of stock on the open market, such shares shall not be added to the shares of Stock available for issuance under the Plan. Subject to such overall limitations, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award; provided, however, that Stock Options or Stock Appreciation Rights with respect to no more than 11,500,000 shares of Stock may be granted to any one individual grantee during any one calendar year period. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company.

(b) Maximum Awards to Non-Employee Directors. Notwithstanding anything to the contrary in this Plan, the value of all Awards awarded under this Plan and all other cash compensation paid by the Company to any Non-Employee Director in any calendar year shall not exceed \$750,000. For the purpose of this limitation, the value of any Award shall be its grant date fair value, as determined in accordance with ASC 718 or successor provision but excluding the impact of estimated forfeitures related to service-based vesting provisions.

(c) Changes in Stock. Subject to Section 3(d) hereof, if, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding shares of Stock are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Stock or other securities, or, if, as a result of any merger or consolidation, sale of all or substantially all of the assets of the Company, the outstanding shares of Stock are converted into or exchanged for securities of the Company or any successor entity (or a parent or subsidiary thereof), the Administrator shall make an appropriate or proportionate adjustment in (i) the maximum number of shares reserved for issuance under the Plan, including the maximum number of shares that may be issued in the form of Incentive Stock Options, (ii) the number of Stock Options or Stock Appreciation Rights that can be granted to any one individual grantee and the maximum number of shares that may be granted under a Performance-Based Award, (iii) the number and kind of shares or other securities subject to any then outstanding Awards under the Plan, (iv) the repurchase price, if any, per share subject to each outstanding Restricted Stock Award, and (v) the exercise price for each share subject to any then outstanding Stock Options and Stock Appreciation Rights under the Plan, without changing the aggregate exercise price (i.e., the exercise price multiplied by the number of Stock Options and Stock Appreciation Rights) as to which such Stock Options and Stock Appreciation Rights remain exercisable. The Administrator shall also make equitable or proportionate adjustments in the number of shares subject to outstanding Awards and the exercise price and the terms of outstanding Awards to take into consideration cash dividends paid other than in the ordinary course or any other extraordinary corporate event. The

adjustment by the Administrator shall be final, binding and conclusive. No fractional shares of Stock shall be issued under the Plan resulting from any such adjustment, but the Administrator in its discretion may make a cash payment in lieu of fractional shares.

(d) Mergers and Other Transactions. In the case of and subject to the consummation of a Sale Event, the parties thereto may cause the assumption or continuation of Awards theretofore granted by the successor entity, or the substitution of such Awards with new Awards of the successor entity or parent thereof, with appropriate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree. To the extent the parties to such Sale Event do not provide for the assumption, continuation or substitution of Awards, upon the effective time of the Sale Event, the Plan and all outstanding Awards granted hereunder shall terminate. In the event of such termination, except as may be otherwise provided in the relevant Award Certificate, all Options and Stock Appreciation Rights with time-based vesting, conditions or restrictions that are not vested and/or exercisable immediately prior to the effective time of the Sale Event shall become fully vested and exercisable as of the effective time of the Sale Event, all other Awards with time-based vesting, conditions or restrictions shall become fully vested and nonforfeitable as of the effective time of the Sale Event, and all Awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in connection with a Sale Event in the Administrator's discretion or to the extent specified in the relevant Award Certificate. In the event of such termination, (i) the Company shall have the option (in its sole discretion) to make or provide for a payment, in cash or in kind, to the grantees holding Options and Stock Appreciation Rights, in exchange for the cancellation thereof, in an amount equal to the difference between (A) the Sale Price multiplied by the number of shares of Stock subject to outstanding Options and Stock Appreciation Rights (to the extent then exercisable at prices not in excess of the Sale Price) and (B) the aggregate exercise price of all such outstanding Options and Stock Appreciation Rights; or (ii) each grantee shall be permitted, within a specified period of time prior to the consummation of the Sale Event as determined by the Administrator, to exercise all outstanding Options and Stock Appreciation Rights (to the extent then exercisable) held by such grantee. The Company shall also have the option (in its sole discretion) to make or provide for a payment, in cash or in kind, to the grantees holding other Awards in an amount equal to the Sale Price multiplied by the number of vested shares of Stock under such Awards.

#### SECTION 4. ELIGIBILITY

Grantees under the Plan will be such full or part-time officers and other employees, Non-Employee Directors and Consultants of the Company and its Subsidiaries as are selected from time to time by the Administrator in its sole discretion.

#### SECTION 5. STOCK OPTIONS

(a) Award of Stock Options. The Administrator may grant Stock Options under the Plan. Any Stock Option granted under the Plan shall be in such form as the Administrator may from time to time approve.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a "subsidiary corporation" within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

Stock Options granted pursuant to this Section 5 shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Administrator shall deem desirable. If the Administrator so determines, Stock Options may be granted in lieu of cash compensation at the optionee's election, subject to such terms and conditions as the Administrator may establish.

(b) Exercise Price. The exercise price per share for the Stock covered by a Stock Option granted pursuant to this Section 5 shall be determined by the Administrator at the time of grant but shall not be less than 100 percent of the Fair Market Value on the date of grant. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the option price of such Incentive Stock Option shall be not less than 110 percent of the Fair Market Value on the grant date.

(c) Option Term. The term of each Stock Option shall be fixed by the Administrator, but no Stock Option shall be exercisable more than ten years after the date the Stock Option is granted. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the term of such Stock Option shall be no more than five years from the date of grant.

(d) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable at such time or times, whether or not in installments, as shall be determined by the Administrator at or after the grant date. The Administrator may at any time accelerate the exercisability of all or any portion of any Stock Option. An optionee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options.

(e) Method of Exercise. Stock Options may be exercised in whole or in part, by giving written or electronic notice of exercise to the Company, specifying the number of shares to be purchased. Payment of the purchase price may be made by one or more of the following methods except to the extent otherwise provided in the Option Award Certificate:

(i) In cash, by certified or bank check or other instrument acceptable to the Administrator;

(ii) Through the delivery (or attestation to the ownership following such procedures as the Company may prescribe) of shares of Stock that are not then subject to restrictions under any Company plan. Such surrendered shares shall be valued at Fair Market Value on the exercise date;

(iii) By the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; provided that in the event the optionee chooses to pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Company shall prescribe as a condition of such payment procedure; or

(iv) With respect to Stock Options that are not Incentive Stock Options, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price.

Payment instruments will be received subject to collection. The transfer to the optionee on the records of the Company or of the transfer agent of the shares of Stock to be purchased pursuant to the exercise of a Stock Option will be contingent upon receipt from the optionee (or a purchaser acting in his stead in

accordance with the provisions of the Stock Option) by the Company of the full purchase price for such shares and the fulfillment of any other requirements contained in the Option Award Certificate or applicable provisions of laws (including the satisfaction of any withholding taxes that the Company is obligated to withhold with respect to the optionee). In the event an optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the optionee upon the exercise of the Stock Option shall be net of the number of attested shares. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the exercise of Stock Options, such as a system using an internet website or interactive voice response, then the paperless exercise of Stock Options may be permitted through the use of such an automated system.

(f) Annual Limit on Incentive Stock Options. To the extent required for “incentive stock option” treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the time of grant) of the shares of Stock with respect to which Incentive Stock Options granted under this Plan and any other plan of the Company or its parent and subsidiary corporations become exercisable for the first time by an optionee during any calendar year shall not exceed \$100,000. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option.

#### SECTION 6. STOCK APPRECIATION RIGHTS

(a) Award of Stock Appreciation Rights. The Administrator may grant Stock Appreciation Rights under the Plan. A Stock Appreciation Right is an Award entitling the recipient to receive shares of Stock having a value equal to the excess of the Fair Market Value of a share of Stock on the date of exercise over the exercise price of the Stock Appreciation Right multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised.

(b) Exercise Price of Stock Appreciation Rights. The exercise price of a Stock Appreciation Right shall not be less than 100 percent of the Fair Market Value of the Stock on the date of grant.

(c) Grant and Exercise of Stock Appreciation Rights. Stock Appreciation Rights may be granted by the Administrator independently of any Stock Option granted pursuant to Section 5 of the Plan.

(d) Terms and Conditions of Stock Appreciation Rights. Stock Appreciation Rights shall be subject to such terms and conditions as shall be determined from time to time by the Administrator. The term of a Stock Appreciation Right may not exceed ten years.

#### SECTION 7. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. The Administrator may grant Restricted Stock Awards under the Plan. A Restricted Stock Award is any Award of Restricted Shares subject to such restrictions and conditions as the Administrator may determine at the time of grant. Conditions may be based on continuing employment (or other service relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of each such Award shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees.

(b) Rights as a Stockholder. Upon the grant of the Restricted Stock Award and payment of any applicable purchase price, a grantee shall have the rights of a stockholder with respect to the voting of the Restricted Shares and receipt of dividends; provided that if the lapse of restrictions with respect to the Restricted Stock Award is tied to the attainment of performance goals, any dividends paid by the

Company during the performance period shall accrue and shall not be paid to the grantee until and to the extent the performance goals are met with respect to the Restricted Stock Award. Unless the Administrator shall otherwise determine, (i) uncertificated Restricted Shares shall be accompanied by a notation on the records of the Company or the transfer agent to the effect that they are subject to forfeiture until such Restricted Shares are vested as provided in Section 7(d) below, and (ii) certificated Restricted Shares shall remain in the possession of the Company until such Restricted Shares are vested as provided in Section 7(d) below, and the grantee shall be required, as a condition of the grant, to deliver to the Company such instruments of transfer as the Administrator may prescribe.

(c) Restrictions. Restricted Shares may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Restricted Stock Award Certificate. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, if a grantee's employment (or other service relationship) with the Company and its Subsidiaries terminates for any reason, any Restricted Shares that have not vested at the time of termination shall automatically and without any requirement of notice to such grantee from or other action by or on behalf of, the Company be deemed to have been reacquired by the Company at its original purchase price (if any) from such grantee or such grantee's legal representative simultaneously with such termination of employment (or other service relationship), and thereafter shall cease to represent any ownership of the Company by the grantee or rights of the grantee as a stockholder. Following such deemed reacquisition of Restricted Shares that are represented by physical certificates, a grantee shall surrender such certificates to the Company upon request without consideration.

(d) Vesting of Restricted Shares. The Administrator at the time of grant shall specify the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which the non-transferability of the Restricted Shares and the Company's right of repurchase or forfeiture shall lapse. Subsequent to such date or dates and/or the attainment of such pre-established performance goals, objectives and other conditions, the shares on which all restrictions have lapsed shall no longer be Restricted Shares and shall be deemed "vested."

#### SECTION 8. RESTRICTED STOCK UNITS

(a) Nature of Restricted Stock Units. The Administrator may grant Restricted Stock Units under the Plan. A Restricted Stock Unit is an Award of stock units that may be settled in shares of Stock upon the satisfaction of such restrictions and conditions at the time of grant. Conditions may be based on continuing employment (or other service relationship) and/or achievement of pre-established performance goals and objectives. The terms and conditions of each such Award shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and grantees. Except in the case of Restricted Stock Units with a deferred settlement date that complies with Section 409A, at the end of the vesting period, the Restricted Stock Units, to the extent vested, shall be settled in the form of shares of Stock. Restricted Stock Units with deferred settlement dates are subject to Section 409A and shall contain such additional terms and conditions as the Administrator shall determine in its sole discretion in order to comply with the requirements of Section 409A.

(b) Election to Receive Restricted Stock Units in Lieu of Compensation. The Administrator may, in its sole discretion, permit a grantee to elect to receive a portion of future cash compensation otherwise due to such grantee in the form of an award of Restricted Stock Units. Any such election shall be made in writing and shall be delivered to the Company no later than the date specified by the Administrator and in accordance with Section 409A and such other rules and procedures established by

the Administrator. Any such future cash compensation that the grantee elects to defer shall be converted to a fixed number of Restricted Stock Units based on the Fair Market Value of Stock on the date the compensation would otherwise have been paid to the grantee if such payment had not been deferred as provided herein. The Administrator shall have the sole right to determine whether and under what circumstances to permit such elections and to impose such limitations and other terms and conditions thereon as the Administrator deems appropriate. Any Restricted Stock Units that are elected to be received in lieu of cash compensation shall be fully vested, unless otherwise provided in the Award Certificate.

(c) Rights as a Stockholder. A grantee shall have the rights as a stockholder only as to shares of Stock acquired by the grantee upon settlement of Restricted Stock Units; provided, however, that the grantee may be credited with Dividend Equivalent Rights with respect to the stock units underlying his Restricted Stock Units, subject to the provisions of Section 11 and such terms and conditions as the Administrator may determine.

(d) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, a grantee's right in all Restricted Stock Units that have not vested shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

#### SECTION 9. UNRESTRICTED STOCK AWARDS

Grant or Sale of Unrestricted Stock. The Administrator may grant (or sell at par value or such higher purchase price determined by the Administrator) an Unrestricted Stock Award under the Plan. An Unrestricted Stock Award is an Award pursuant to which the grantee may receive shares of Stock free of any restrictions under the Plan. Unrestricted Stock Awards may be granted in respect of past services or other valid consideration, or in lieu of cash compensation due to such grantee.

#### SECTION 10. CASH-BASED AWARDS

Grant of Cash-Based Awards. The Administrator may grant Cash-Based Awards under the Plan. A Cash-Based Award is an Award that entitles the grantee to a payment in cash upon the attainment of specified Performance Goals. The Administrator shall determine the maximum duration of the Cash-Based Award, the amount of cash to which the Cash-Based Award pertains, the conditions upon which the Cash-Based Award shall become vested or payable, and such other provisions as the Administrator shall determine. Each Cash-Based Award shall specify a cash-denominated payment amount, formula or payment ranges as determined by the Administrator. Payment, if any, with respect to a Cash-Based Award shall be made in accordance with the terms of the Award and may be made in cash.

#### SECTION 11. PERFORMANCE SHARE AWARDS

(a) Nature of Performance Share Awards. The Administrator may grant Performance Share Awards under the Plan. A Performance Share Award is an Award entitling the grantee to receive shares of Stock upon the attainment of performance goals. The Administrator shall determine whether and to whom Performance Share Awards shall be granted, the performance goals, the periods during which performance is to be measured, which may not be less than one year except in the case of a Sale Event, and such other limitations and conditions as the Administrator shall determine.

(b) Rights as a Stockholder. A grantee receiving a Performance Share Award shall have the rights of a stockholder only as to shares of Stock actually received by the grantee under the Plan and not with respect to shares subject to the Award but not actually received by the grantee. A grantee shall be entitled to receive shares of Stock under a Performance Share Award only upon satisfaction of all conditions specified in the Performance Share Award Certificate (or in a performance plan adopted by the Administrator).

(c) Termination. Except as may otherwise be provided by the Administrator either in the Award agreement or, subject to Section 18 below, in writing after the Award is issued, a grantee's rights in all Performance Share Awards shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

#### SECTION 12. PERFORMANCE-BASED AWARDS TO COVERED EMPLOYEES

(a) Performance-Based Awards. The Administrator may grant one or more Performance-Based Awards in the form of a Restricted Stock Award, Restricted Stock Units, Performance Share Awards or Cash-Based Award payable upon the attainment of Performance Goals that are established by the Administrator and relate to one or more of the Performance Criteria, in each case on a specified date or dates or over any period or periods determined by the Administrator. The Administrator shall define in an objective fashion the manner of calculating the Performance Criteria it selects to use for any Performance Cycle. Depending on the Performance Criteria used to establish such Performance Goals, the Performance Goals may be expressed in terms of overall Company performance or the performance of a division, business unit, or an individual. Each Performance-Based Award shall comply with the provisions set forth below.

(b) Grant of Performance-Based Awards. With respect to each Performance-Based Award granted to a Covered Employee, the Administrator shall select, within the first 90 days of a Performance Cycle (or, if shorter, within the maximum period allowed under Section 162(m) of the Code) the Performance Criteria for such grant, and the Performance Goals with respect to each Performance Criterion (including a threshold level of performance below which no amount will become payable with respect to such Award). Each Performance-Based Award will specify the amount payable, or the formula for determining the amount payable, upon achievement of the various applicable performance targets. The Performance Criteria established by the Administrator may be (but need not be) different for each Performance Cycle and different Performance Goals may be applicable to Performance-Based Awards to different Covered Employees.

(c) Payment of Performance-Based Awards. Following the completion of a Performance Cycle, the Administrator shall meet to review and certify in writing whether, and to what extent, the Performance Goals for the Performance Cycle have been achieved and, if so, to also calculate and certify in writing the amount of the Performance-Based Awards earned for the Performance Cycle. The Administrator shall then determine the actual size of each Covered Employee's Performance-Based Award.

(d) Maximum Award Payable. The maximum Performance-Based Award payable to any one Covered Employee under the Plan for a Performance Cycle is 11,500,000 shares of Stock (subject to adjustment as provided in Section 3(c) hereof) or \$5,000,000 in the case of a Performance-Based Award that is a Cash-Based Award.

#### SECTION 13. DIVIDEND EQUIVALENT RIGHTS



(a) Dividend Equivalent Rights. The Administrator may grant Dividend Equivalent Rights under the Plan. A Dividend Equivalent Right is an Award entitling the grantee to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other Award to which it relates) if such shares had been issued to the grantee. A Dividend Equivalent Right may be granted hereunder to any grantee as a component of an award of Restricted Stock Units or Performance Share Award or as a freestanding award. The terms and conditions of Dividend Equivalent Rights shall be specified in the Award Certificate. Dividend equivalents credited to the holder of a Dividend Equivalent Right may be paid currently or may be deemed to be reinvested in additional shares of Stock, which may thereafter accrue additional equivalents. Any such reinvestment shall be at Fair Market Value on the date of reinvestment or such other price as may then apply under a dividend reinvestment plan sponsored by the Company, if any. Dividend Equivalent Rights may be settled in cash or shares of Stock or a combination thereof, in a single installment or installments. A Dividend Equivalent Right granted as a component of an Award of Restricted Stock Units or Performance Share Award shall provide that such Dividend Equivalent Right shall be settled only upon settlement or payment of, or lapse of restrictions on, such other Award, and that such Dividend Equivalent Right shall expire or be forfeited or annulled under the same conditions as such other Award.

(b) Termination. Except as may otherwise be provided by the Administrator either in the Award Certificate or, subject to Section 18 below, in writing after the Award is issued, a grantee's rights in all Dividend Equivalent Rights shall automatically terminate upon the grantee's termination of employment (or cessation of service relationship) with the Company and its Subsidiaries for any reason.

#### SECTION 14. TRANSFERABILITY OF AWARDS

(a) Transferability. Except as provided in Section 14(b) below, during a grantee's lifetime, his or her Awards shall be exercisable only by the grantee, or by the grantee's legal representative or guardian in the event of the grantee's incapacity. No Awards shall be sold, assigned, transferred or otherwise encumbered or disposed of by a grantee other than by will or by the laws of descent and distribution or pursuant to a domestic relations order. No Awards shall be subject, in whole or in part, to attachment, execution, or levy of any kind, and any purported transfer in violation hereof shall be null and void.

(b) Administrator Action. Notwithstanding Section 14(a), the Administrator, in its discretion, may provide either in the Award Certificate regarding a given Award or by subsequent written approval that the grantee (who is an employee or director) may transfer his or her Non-Qualified Stock Options to his or her immediate family members, to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners, provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Award. In no event may an Award be transferred by a grantee for value.

(c) Family Member. For purposes of Section 14(b), "family member" shall mean a grantee's child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, any person sharing the grantee's household (other than a tenant of the grantee), a trust in which these persons (or the grantee) have more than 50 percent of the beneficial interest, a foundation in which these persons (or the grantee) control the management of assets, and any other entity in which these persons (or the grantee) own more than 50 percent of the voting interests.

(d) Designation of Beneficiary. To the extent permitted by the Company, each grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award or receive any payment under any Award payable on or after the grantee's death. Any such designation shall be on a form provided for that purpose by the Administrator and shall not be effective until received by the Administrator. If no beneficiary has been designated by a deceased grantee, or if the designated beneficiaries have predeceased the grantee, the beneficiary shall be the grantee's estate.

#### SECTION 15. TAX WITHHOLDING

(a) Payment by Grantee. Each grantee shall, no later than the date as of which the value of an Award or of any Stock or other amounts received thereunder first becomes includable in the gross income of the grantee for Federal income tax purposes, pay to the Company, or make arrangements satisfactory to the Administrator regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld by the Company with respect to such income. The Company and its Subsidiaries shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the grantee and/or to direct that the proceeds from a sale of Stock on behalf of a grantee be paid over to the Company to satisfy any such tax withholding obligations. The Company's obligation to deliver evidence of book entry (or stock certificates) to any grantee is subject to and conditioned on tax withholding obligations being satisfied by the grantee.

(b) Payment in Stock. Subject to approval by the Administrator, a grantee may elect to have the Company's minimum required tax withholding obligation satisfied, in whole or in part, by authorizing the Company to withhold from shares of Stock to be issued pursuant to any Award a number of shares with an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the withholding amount due. The Administrator may also require Awards to be subject to mandatory share withholding up to the required withholding amount. For purposes of share withholding, the Fair Market Value of withheld shares shall be determined in the same manner as the value of Stock includable in income of the Participants.

#### SECTION 16. SECTION 409A AWARDS

To the extent that any Award is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A (a "409A Award"), the Award shall be subject to such additional rules and requirements as specified by the Administrator from time to time in order to comply with Section 409A. In this regard, if any amount under a 409A Award is payable upon a "separation from service" (within the meaning of Section 409A) to a grantee who is then considered a "specified employee" (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee's separation from service, or (ii) the grantee's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A. Further, the settlement of any such Award may not be accelerated except to the extent permitted by Section 409A.

#### SECTION 17. TERMINATION OF EMPLOYMENT, TRANSFER, LEAVE OF ABSENCE, ETC.

(a) Termination of Employment. If the grantee's employer ceases to be a Subsidiary, the grantee shall be deemed to have terminated employment for purposes of the Plan.

(b) For purposes of the Plan, the following events shall not be deemed a termination of employment:

(i) a transfer to the employment of the Company from a Subsidiary or from the Company to a Subsidiary, or from one Subsidiary to another; or

(ii) an approved leave of absence for military service or sickness, or for any other purpose approved by the Company, if the employee's right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise so provides in writing.

#### SECTION 18. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Administrator may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law or for any other lawful purpose, but no such action shall adversely affect rights under any outstanding Award without the holder's consent. The Administrator is specifically authorized to exercise its discretion to reduce the exercise price of outstanding Stock Options or Stock Appreciation Rights or effect the repricing of such Awards through cancellation and re-grants. To the extent required under the rules of any securities exchange or market system on which the Stock is listed, to the extent determined by the Administrator to be required by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code, or to ensure that compensation earned under Awards qualifies as performance-based compensation under Section 162(m) of the Code, Plan amendments shall be subject to approval by the Company stockholders entitled to vote at a meeting of stockholders. Nothing in this Section 18 shall limit the Administrator's authority to take any action permitted pursuant to Section 3(c) or 3(d).

#### SECTION 19. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a grantee, a grantee shall have no rights greater than those of a general creditor of the Company unless the Administrator shall otherwise expressly determine in connection with any Award or Awards. In its sole discretion, the Administrator may authorize the creation of trusts or other arrangements to meet the Company's obligations to deliver Stock or make payments with respect to Awards hereunder, provided that the existence of such trusts or other arrangements is consistent with the foregoing sentence.

#### SECTION 20. GENERAL PROVISIONS

(a) No Distribution. The Administrator may require each person acquiring Stock pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the shares without a view to distribution thereof.

(b) Delivery of Stock Certificates. Stock certificates to grantees under this Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the grantee, at the grantee's last known address on file with the Company. Uncertificated Stock shall be deemed delivered for all purposes when the Company or a Stock transfer agent of the Company shall have given to the grantee by electronic mail (with proof of receipt) or by United States mail, addressed to the grantee, at the grantee's last known address on file with the Company, notice of issuance and recorded the issuance in its records (which may include electronic "book entry" records). Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates evidencing shares of Stock pursuant to the exercise of any Award, unless and until the Administrator has determined, with advice of counsel (to the extent the Administrator deems such advice necessary or advisable), that the issuance and delivery of such

certificates is in compliance with all applicable laws, regulations of governmental authorities and, if applicable, the requirements of any exchange on which the shares of Stock are listed, quoted or traded. All Stock certificates delivered pursuant to the Plan shall be subject to any stop-transfer orders and other restrictions as the Administrator deems necessary or advisable to comply with federal, state or foreign jurisdiction, securities or other laws, rules and quotation system on which the Stock is listed, quoted or traded. The Administrator may place legends on any Stock certificate to reference restrictions applicable to the Stock. In addition to the terms and conditions provided herein, the Administrator may require that an individual make such reasonable covenants, agreements, and representations as the Administrator, in its discretion, deems necessary or advisable in order to comply with any such laws, regulations, or requirements. The Administrator shall have the right to require any individual to comply with any timing or other restrictions with respect to the settlement or exercise of any Award, including a window-period limitation, as may be imposed in the discretion of the Administrator.

(c) Stockholder Rights. Until Stock is deemed delivered in accordance with Section 20(b), no right to vote or receive dividends or any other rights of a stockholder will exist with respect to shares of Stock to be issued in connection with an Award, notwithstanding the exercise of a Stock Option or any other action by the grantee with respect to an Award.

(d) Other Compensation Arrangements; No Employment Rights. Nothing contained in this Plan shall prevent the Board from adopting other or additional compensation arrangements, including trusts, and such arrangements may be either generally applicable or applicable only in specific cases. The adoption of this Plan and the grant of Awards do not confer upon any employee any right to continued employment with the Company or any Subsidiary.

(e) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to the Company's insider trading policies and procedures, as in effect from time to time.

(f) Clawback Policy. Awards under the Plan shall be subject to the Company's clawback policy, as in effect from time to time.

#### SECTION 21. EFFECTIVE DATE OF PLAN

This Plan shall become effective upon the date immediately preceding the date on which the Company's Registration Statement on Form S-1 becomes effective. No grants of Stock Options and other Awards may be made hereunder after the tenth anniversary of the Effective Date and no grants of Incentive Stock Options may be made hereunder after the tenth anniversary of the date the Plan is approved by the Board.

#### SECTION 22. GOVERNING LAW

This Plan and all Awards and actions taken thereunder shall be governed by, and construed in accordance with, the laws of the State of California, applied without regard to conflict of law principles.

**INCENTIVE STOCK OPTION AGREEMENT**

**UNDER THE TWILIO INC.**

**2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Optionee:

No. of Option Shares:

Option Exercise Price per Share:

\$

**[FMV on Grant Date (110% of FMV if a 10% owner)]**

Grant Date:

Expiration Date:

**[up to 10 years (5 if a 10% owner)]**

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Twilio Inc. (the "Company") hereby grants to the Optionee named above an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Class A Common Stock, par value \$0.001 per share (the "Stock"), of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated so long as the Optionee remains an employee of the Company or a Subsidiary on such dates:

<b>Incremental Number of Option Shares Exercisable*</b>	<b>Exercisability Date</b>
( )	
( )	
( )	
( )	
( )	

\* Max. of \$100,000 per yr.

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; or (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; or (iv) a combination of (i), (ii) and (iii) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the Shares attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) The minimum number of shares with respect to which this Stock Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

(d) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Employment. If the Optionee's employment by the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's employment terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Termination Due to Disability. If the Optionee's employment terminates by reason of the Optionee's disability (as determined by the Administrator), any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of such termination of employment, may thereafter be exercised by the Optionee for a period of 12 months from the date of disability or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of disability shall terminate immediately and be of no further force or effect.

(c) Termination for Cause. If the Optionee's employment terminates for Cause, any portion of this Stock Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean, unless otherwise provided in an employment agreement between the Company and the Optionee, a determination by the Administrator that the Optionee shall be dismissed as a result of (i) any material breach by the Optionee of any agreement between the Optionee and the Company; (ii) the conviction of, indictment for or plea of nolo contendere by the Optionee to a felony or a crime involving moral turpitude; or (iii) any material misconduct or willful and deliberate non-performance (other than by reason of disability) by the Optionee of the Optionee's duties to the Company.

(d) Other Termination. If the Optionee's employment terminates for any reason other than the Optionee's death, the Optionee's disability, or Cause, and unless otherwise determined by the Administrator, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of three months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

The Administrator's determination of the reason for termination of the Optionee's employment shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. Status of the Stock Option. This Stock Option is intended to qualify as an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), but the Company does not represent or warrant that this Stock Option qualifies as such. The Optionee should consult with his or her own tax advisors regarding the tax effects of this Stock Option and the requirements necessary to obtain favorable income tax treatment under Section 422 of the Code,

including, but not limited to, holding period requirements. To the extent any portion of this Stock Option does not so qualify as an “incentive stock option,” such portion shall be deemed to be a non-qualified stock option. If the Optionee intends to dispose or does dispose (whether by sale, gift, transfer or otherwise) of any Option Shares within the one-year period beginning on the date after the transfer of such shares to him or her, or within the two-year period beginning on the day after the grant of this Stock Option, he or she will so notify the Company within 30 days after such disposition.

7. Tax Withholding. The Optionee shall, not later than the date as of which the exercise of this Stock Option becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Company shall have the authority to cause the minimum required tax withholding obligation to be satisfied, in whole or in part, by withholding from shares of Stock to be issued to the Optionee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the minimum withholding amount due.

8. No Obligation to Continue Employment. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Optionee in employment and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Optionee at any time.

9. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

10. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the “Relevant Companies”) may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the “Relevant Information”). By entering into this Agreement, the Optionee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Optionee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Optionee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

11. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

**Twilio Inc.**

By: \_\_\_\_\_

Title: \_\_\_\_\_



The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Optionee (including through an online acceptance process) is acceptable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Optionee's Signature

Optionee's name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**NON-QUALIFIED STOCK OPTION AGREEMENT  
FOR NON-EMPLOYEE DIRECTORS  
UNDER THE TWILIO INC.  
2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Optionee:  
 No. of Option Shares:  
 Option Exercise Price per Share: \$ **[FMV on Grant Date]**  
 Grant Date:  
 Expiration Date: **[No more than 10 years]**

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan as amended through the date hereof (the “Plan”), Twilio Inc. (the “Company”) hereby grants to the Optionee named above, who is a Director of the Company but is not an employee of the Company, an option (the “Stock Option”) to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Class A Common Stock, par value \$0.001 per share (the “Stock”), of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan. This Stock Option is not intended to be an “incentive stock option” under Section 422 of the Internal Revenue Code of 1986, as amended.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated so long as the Optionee remains in service as a member of the Board on such dates:

<b>Incremental Number of Option Shares Exercisable</b>	<b>Exercisability Date</b>
( )	
( )	
( )	
( )	
( )	

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written

notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; (iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; or (v) a combination of (i), (ii), (iii) and (iv) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the Shares attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) The minimum number of shares with respect to which this Stock Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

(d) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination as Director. If the Optionee ceases to be a Director of the Company, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's service as a Director terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Other Termination. If the Optionee ceases to be a Director for any reason other than the Optionee's death, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date the Optionee ceased to be a Director, for a period of six months from the date the Optionee ceased to be a Director or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date the Optionee ceases to be a Director shall terminate immediately and be of no further force or effect.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. No Obligation to Continue as a Director. Neither the Plan nor this Stock Option confers upon the Optionee any rights with respect to continuance as a Director.

7. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

8. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Optionee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Optionee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Optionee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

9. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

**Twilio Inc.**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Optionee (including through an online acceptance process) is acceptable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Optionee's Signature

Optionee's name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**NON-QUALIFIED STOCK OPTION AGREEMENT  
FOR COMPANY EMPLOYEES  
UNDER THE TWILIO INC.  
2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Optionee:

No. of Option Shares:

Option Exercise Price per Share:                   \$  
**[FMV on Grant Date]**

Grant Date:

Expiration Date:

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Twilio Inc. (the "Company") hereby grants to the Optionee named above an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Class A Common Stock, par value \$0.001 per share (the "Stock") of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan. This Stock Option is not intended to be an "incentive stock option" under Section 422 of the Internal Revenue Code of 1986, as amended.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated so long as Optionee remains an employee of the Company or a Subsidiary on such dates:

<b>Incremental Number of Option Shares Exercisable</b>	<b>Exercisability Date</b>
	( )
	( )
	( )
	( )
	( )

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the

Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; (iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; or (v) a combination of (i), (ii), (iii) and (iv) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the Shares attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) The minimum number of shares with respect to which this Stock Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

(d) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Employment. If the Optionee's employment by the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's employment terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Termination Due to Disability. If the Optionee's employment terminates by reason of the Optionee's disability (as determined by the Administrator), any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of such termination of employment, may thereafter be exercised by the Optionee for a period of 12 months from the date of disability or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of disability shall terminate immediately and be of no further force or effect.

(c) Termination for Cause. If the Optionee's employment terminates for Cause, any portion of this Stock Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean, unless otherwise provided in an employment agreement between the Company and the Optionee, a determination by the Administrator that the Optionee shall be dismissed as a result of (i) any material breach by the Optionee of any agreement between the Optionee and the Company; (ii) the conviction of, indictment for or plea of nolo contendere by the Optionee to a felony or a crime involving moral turpitude; or (iii) any material misconduct or willful and deliberate non-performance (other than by reason of disability) by the Optionee of the Optionee's duties to the Company.

(d) Other Termination. If the Optionee's employment terminates for any reason other than the Optionee's death, the Optionee's disability or Cause, and unless otherwise determined by the Administrator, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of three months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

The Administrator's determination of the reason for termination of the Optionee's employment shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.



6. Tax Withholding. The Optionee shall, not later than the date as of which the exercise of this Stock Option becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Company shall have the authority to cause the minimum required tax withholding obligation to be satisfied, in whole or in part, by withholding from shares of Stock to be issued to the Optionee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the minimum withholding amount due.

7. No Obligation to Continue Employment. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Optionee in employment and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Optionee at any time.

8. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

9. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Optionee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Optionee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Optionee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

10. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

**Twilio Inc.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Optionee (including through an online acceptance process) is acceptable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Optionee's Signature

Optionee's name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**RESTRICTED STOCK AWARD AGREEMENT**

**UNDER THE TWILIO INC.**

**2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Grantee:

No. of Shares:

Grant Date:

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan (the "Plan") as amended through the date hereof, Twilio Inc. (the "Company") hereby grants a Restricted Stock Award (an "Award") to the Grantee named above. Upon acceptance of this Award, the Grantee shall receive the number of shares of Class A Common Stock, par value \$0.001 per share (the "Stock") of the Company specified above, subject to the restrictions and conditions set forth herein and in the Plan. The Company acknowledges the receipt from the Grantee of consideration with respect to the par value of the Stock in the form of cash, past or future services rendered to the Company by the Grantee or such other form of consideration as is acceptable to the Administrator.

1. Award. The shares of Restricted Stock awarded hereunder shall be issued and held by the Company's transfer agent in book entry form, and the Grantee's name shall be entered as the stockholder of record on the books of the Company. Thereupon, the Grantee shall have all the rights of a stockholder with respect to such shares, including voting and dividend rights, subject, however, to the restrictions and conditions specified in Paragraph 2 below. The Grantee shall (i) sign and deliver to the Company a copy of this Award Agreement and (ii) deliver to the Company a stock power endorsed in blank.

2. Restrictions and Conditions.

(a) Any book entries for the shares of Restricted Stock granted herein shall bear an appropriate legend, as determined by the Administrator in its sole discretion, to the effect that such shares are subject to restrictions as set forth herein and in the Plan.

(b) Shares of Restricted Stock granted herein may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of by the Grantee prior to vesting.

(c) If the Grantee's employment with the Company and its Subsidiaries is voluntarily or involuntarily terminated for any reason (including death) prior to vesting of shares of Restricted Stock granted herein, all shares of Restricted Stock shall immediately and automatically be forfeited and returned to the Company.

3. Vesting of Restricted Stock. The restrictions and conditions in Paragraph 2 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee remains an employee of the Company or a Subsidiary on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 2 shall lapse only with respect to the number of shares of Restricted Stock specified as vested on such date.

**Incremental Number  
of Shares Vested**

**Vesting Date**

( )

( )

( )

( )

( )

Subsequent to such Vesting Date or Dates, the shares of Stock on which all restrictions and conditions have lapsed shall no longer be deemed Restricted Stock. The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 3.

4. Dividends. Dividends on shares of Restricted Stock shall be paid currently to the Grantee.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Award shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Transferability. This Agreement is personal to the Grantee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution.

7. Tax Withholding. The Grantee shall, not later than the date as of which the receipt of this Award becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. Except in the case where an election is made pursuant to Paragraph 8 below, the Company shall have the authority to cause the required minimum tax withholding obligation to be satisfied, in whole or in part, by withholding from shares of Stock to be issued or released by the transfer agent a number of shares of Stock with an aggregate Fair Market Value that would satisfy the minimum withholding amount due.

8. Election Under Section 83(b). The Grantee and the Company hereby agree that the Grantee may, within 30 days following the Grant Date of this Award, file with the Internal Revenue Service and the Company an election under Section 83(b) of the Internal Revenue Code. In the event the Grantee makes such an election, he or she agrees to provide a copy of the election to the Company. The Grantee acknowledges that he or she is responsible for obtaining the advice of his or her tax advisors with regard to the Section 83(b) election and that he or she is relying solely on such advisors and not on any statements or representations of the Company or any of its agents with regard to such election.

9. No Obligation to Continue Employment. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Grantee in employment and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Grantee at any time.

10. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

11. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the “Relevant Companies”) may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the “Relevant Information”). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

12. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

**Twilio Inc.**

By: \_\_\_\_\_  
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company’s instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Grantee’s Signature

Grantee’s name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**RESTRICTED STOCK UNIT AWARD AGREEMENT**

**FOR NON-EMPLOYEE DIRECTORS**

**UNDER THE TWILIO INC.**

**2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Grantee:

No. of Restricted Stock Units:

Grant Date:

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan as amended through the date hereof (the “Plan”), Twilio Inc. (the “Company”) hereby grants an award of the number of Restricted Stock Units listed above (an “Award”) to the Grantee named above. Each Restricted Stock Unit shall relate to one share of Class A Common Stock, par value \$0.001 per share (the “Stock”) of the Company.

1. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.

2. Vesting of Restricted Stock Units. The restrictions and conditions of Paragraph 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee remains in service as a member of the Board on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.

**Incremental Number of  
Restricted Stock Units Vested**

**Vesting Date**

( )

( )

( )

( )

The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.

3. Termination of Service. If the Grantee’s service with the Company and its Subsidiaries terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and

neither the Grantee nor any of his or her successors, heirs, assigns, or personal representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units.

4. Issuance of Shares of Stock. As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Section 409A of the Code. This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as “short-term deferrals” as described in Section 409A of the Code.

7. No Obligation to Continue as a Director. Neither the Plan nor this Award confers upon the Grantee any rights with respect to continuance as a Director.

8. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

9. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the “Relevant Companies”) may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the “Relevant Information”). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

10. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

**Twilio Inc.**

By: \_\_\_\_\_  
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Grantee's Signature

Grantee's name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**RESTRICTED STOCK UNIT AWARD AGREEMENT**

**FOR COMPANY EMPLOYEES**

**UNDER THE TWILIO INC.**

**2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Grantee:

No. of Restricted Stock Units:

Grant Date:

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Twilio Inc. (the "Company") hereby grants an award of the number of Restricted Stock Units listed above (an "Award") to the Grantee named above. Each Restricted Stock Unit shall relate to one share of Class A Common Stock, par value \$0.001 per share (the "Stock") of the Company.

1. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.

2. Vesting of Restricted Stock Units. The restrictions and conditions of Paragraph 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee remains an employee of the Company or a Subsidiary on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.

<b>Incremental Number of Restricted Stock Units Vested</b>	<b>Vesting Date</b>
( )	
( )	
( )	
( )	

The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.

3. Termination of Employment. If the Grantee's employment with the Company and its Subsidiaries terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and neither the Grantee nor any of his or her successors, heirs, assigns, or personal representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units.

4. Issuance of Shares of Stock. As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Tax Withholding. The Grantee shall, not later than the date as of which the receipt of this Award becomes a taxable event for Federal income tax purposes, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes required by law to be withheld on account of such taxable event. The Company shall have the authority to cause the required minimum tax withholding obligation to be satisfied, in whole or in part, by withholding from shares of Stock to be issued to the Grantee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the withholding amount due. In addition, the required tax withholding obligation may be satisfied, in whole or in part, by an arrangement whereby a certain number of shares of Stock issued upon settlement of the Award are immediately sold and proceeds from such sale are remitted to the Company in an amount that would satisfy the withholding amount due.

7. Section 409A of the Code. This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as “short-term deferrals” as described in Section 409A of the Code.

8. No Obligation to Continue Employment. Neither the Company nor any Subsidiary is obligated by or as a result of the Plan or this Agreement to continue the Grantee in employment and neither the Plan nor this Agreement shall interfere in any way with the right of the Company or any Subsidiary to terminate the employment of the Grantee at any time.

9. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

10. Data Privacy Consent. In order to administer the Plan and this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the “Relevant Companies”) may process any and all personal or professional data, including but not limited to Social Security or other identification number, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the “Relevant Information”). By entering into this Agreement, the Grantee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Grantee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Grantee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law.

11. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

**Twilio Inc.**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Grantee's Signature

Grantee's name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**NON-QUALIFIED STOCK OPTION AGREEMENT**  
**FOR NON-EMPLOYEE DIRECTORS**  
**UNDER THE TWILIO INC.**  
**2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Optionee:

No. of Option Shares:

Option Exercise Price per Share:      US\$  
  **[FMV on Grant Date]**

Grant Date:

Expiration Date:  
  **[No more than 10 years]**

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan as amended through the date hereof (the “Plan”), Twilio Inc. (the “Company”) hereby grants to the Optionee named above, who is a Director of the Company but is not an employee of the Company, an option (the “Stock Option”) to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Class A Common Stock, par value \$0.001 per share (the “Stock”), of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan. This Stock Option is not intended to be an “incentive stock option” under Section 422 of the Internal Revenue Code of 1986, as amended.

1.       Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated so long as the Optionee remains in service as a member of the Board on such dates:

Incremental Number of Option Shares Exercisable	Exercisability Date
( )	
( )	
( )	
( )	
( )	

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2.       Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; (iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; or (v) a combination of (i), (ii), (iii) and (iv) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the Shares attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) The minimum number of shares with respect to which this Stock Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

(d) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination as Director. If the Optionee ceases to be a Director of the Company, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's service as a Director terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Other Termination. If the Optionee ceases to be a Director for any reason other than the Optionee's death, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date the Optionee ceased to be a Director, for a period of six months from the date the Optionee ceased to be a Director or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date the Optionee ceases to be a Director shall terminate immediately and be of no further force or effect.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. Tax Responsibility. The Optionee acknowledges that the Company (a) makes no representations or undertakings regarding any Federal, state, and local taxes and/or social insurance contributions applicable to any aspect of the Stock Option ("Tax-Related Items"), including, without limitation, the grant, vesting, exercise or settlement of the Stock Option, the subsequent sale of shares acquired pursuant to such issuance, and the receipt of any dividends; and (b) does not commit to and is under no obligation to structure the terms of the grant or any aspect of the Stock Option to reduce or eliminate the Optionee's liability for Tax-Related Items or achieve any particular tax result. The Optionee shall not make any claim against the Company or its Board, officers or employees related to Tax-Related Items arising from the Stock Option or the Optionee's other compensation

7. No Obligation to Continue as a Director. Neither the Plan nor this Stock Option confers upon the Optionee any rights with respect to continuance as a Director.

8. Service Terms and Acknowledgments. In accepting the Stock Options, the Optionee acknowledges, understands and agrees as follows:

(a) the Plan is established voluntarily by the Company and it is discretionary in nature;

(b) the grant of the Stock Options is voluntary and occasional and does not create any contractual or other right to receive future grants of Stock Options, or benefits in lieu of Stock Options, even if Stock Options have been granted in the past;

(c) all decisions with respect to future Stock Options or other grants, if any, will be at the sole discretion of the Company;

(d) the Optionee is voluntarily participating in the Plan;

(e) the Stock Options and any shares of Stock acquired under the Plan are not intended to replace any pension rights or compensation;

(f) the Stock Options and any shares of Stock acquired under the Plan, and the income and value of same, are not part of normal or expected compensation for any purpose, including, without limitation, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, pension or retirement benefits or payments or welfare benefits or similar payments;

(g) the future value of the shares of Stock underlying the Stock Options is unknown, indeterminable, and cannot be predicted with certainty;

(i) if the Optionee acquires shares of Stock, the value of such shares may increase or decrease in value;

(j) for purposes of the Stock Options, the Optionee's right to vest in the Stock Options under the Plan, if any, will terminate as of the date of the Optionee ceases to be a service provider and will not be extended by any notice period (e.g., the Optionee's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where the Optionee is employed or providing services or the terms of the Optionee's employment or service agreement, if any); the Administrator shall have the exclusive discretion to determine the date of the Optionee ceases to be a service provider for purposes of the Stock Options (including whether the Optionee may still be considered to be providing services while on a leave of absence);

(k) unless otherwise provided in the Plan or by the Company in its discretion, the Stock Options and the benefits evidenced by this Agreement do not create any entitlement to have the Stock Options or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; and

(l) the Optionee acknowledges and agrees that neither the Company, nor any Subsidiary shall be liable for any foreign exchange rate fluctuation between the Optionee's local currency and the U.S. Dollar that may affect the value of the Stock Options or of any amounts due to the Optionee pursuant to the exercise of the Stock Options or the subsequent sale of any shares of Stock.

9. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

10. Data Privacy Consent. *Optionee hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of the Optionee's personal data as described in this Agreement and to implement or structure future equity grants, the Company, its subsidiaries and affiliates and certain agents thereof (together, the "Relevant Companies") may process any and all personal or professional data, including any other Stock Options grant materials ("Data") by and among, as applicable, Company, and Subsidiary for the exclusive purpose of implementing, administering and managing the Optionee's participation in the Plan. The Optionee understands that the Company may hold certain personal information about the Optionee, including, but not limited to Social Security or other identification number, the Optionee's name, home address and telephone number, date of birth and other information that is necessary or desirable for the administration of the Plan and/or this Agreement (the "Relevant Information"). By entering into this Agreement, the Optionee (i) authorizes the Company to collect, process, register and transfer to the Relevant Companies all Relevant Information; (ii) waives any privacy rights the Optionee may have with respect to the Relevant Information; (iii) authorizes the Relevant Companies to store and transmit such information in electronic form; and (iv) authorizes the transfer of the Relevant Information to any jurisdiction in which the Relevant Companies consider appropriate. The Optionee shall have access to, and the right to change, the Relevant Information. Relevant Information will only be used in accordance with applicable law., social insurance number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Company, details of all Stock Options or any other entitlement to shares awarded, canceled, vested, unvested, exercised or outstanding in the Optionee's favor, for the exclusive purpose of implementing, administering and managing the Plan. The Optionee understands that Data will be transferred to a stock plan service provider as may selected by the Company in the future, which may be assisting the Company with the implementation, administration and management of the Plan. The Optionee understands that the recipients of the Data may be located in the U.S. or elsewhere, and that the recipient's country (e.g., the U.S.) may have different including less stringent data privacy laws and protections than the Optionee's country. The Optionee understands that if he or she resides outside the U.S., he or she may request a list with the names and addresses of any potential recipients of the Data by contacting his or her local human resources representative. The Optionee authorizes the Company, its Subsidiaries and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purposes of implementing, administering and managing the Optionee's participation in the Plan. The Optionee understands that Data will be held only as long as is necessary to implement, administer and manage the Optionee's participation in the Plan. The Optionee understands that if he or she resides outside the U.S., he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. Further, the Optionee understands that he or she is providing the consents herein on a purely voluntary basis. If the Optionee does not consent, or if the Optionee later seeks to revoke his or her consent, his or her employment status or service and career with the Company will not be adversely affected; the only consequence of refusing or withdrawing the Optionee's consent is that the Company would not be able to grant the Optionee Stock Options or other equity awards or administer or maintain such awards. Therefore, the Optionee understands that refusing or withdrawing his or her consent may affect the Optionee's ability to participate in the Plan. For more information on the consequences of the Optionee's refusal to consent or withdrawal of consent, the Optionee understands that he or she may contact his or her local human resources representative.*



11. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

12. Country-Specific Appendix. Notwithstanding any provisions in this Agreement, the Stock Options shall be subject to any special terms and conditions and notifications set forth in any Appendix to this Agreement for the Optionee's country. Moreover, if the Optionee relocates to one of the countries included in the Appendix, the special terms and conditions and notifications for such country will apply to the Optionee, to the extent the Company determines that the application of such terms and conditions and notifications is necessary or advisable for legal or administrative reasons. This Agreement and any Appendices thereto are referred to jointly as this Agreement.

13. Foreign Exchange. The Optionee acknowledges and agrees that the Optionee may be responsible for reporting inbound or outbound transactions or fund transfers that exceed a certain amount. The Optionee is advised to seek appropriate professional advice as to how the exchange control regulations apply to the Stock Options and the Optionee's specific situation and understands that the relevant laws and regulations can change frequently and occasionally on a retroactive basis.

14. Translation. To the extent that the Optionee has been provided with a translation of this Agreement, the English language version of this Agreement shall prevail in case of any discrepancies or ambiguities due to translation or inconsistencies or conflicts between different language versions of this Agreement.

15. Electronic Delivery of Documents. The Optionee agrees that the Company may deliver electronically or by email all documents relating to the Plan or Stock Options (including, without limitation, a copy of the Plan) and all other documents that the Company is required to deliver to its security holders. The Optionee also agrees that the Company may deliver these documents by posting them on a website maintained by the Company or by a third party under contract with the Company. If the Company posts these documents on a website, it shall notify the Optionee by email. The Optionee acknowledges that he or she may receive from the Company a paper copy of any documents delivered or posted electronically at no cost to the Optionee by contacting the Company by telephone or in writing. The Optionee further acknowledges that the Optionee will be provided with a paper copy of any documents if the attempted electronic delivery of such documents fails. Similarly, the Optionee understands that the Optionee must provide the Company or any designated third party administrator with a paper copy of any documents if the attempted electronic delivery of such documents fails. The Optionee may revoke his or her consent to the electronic delivery of documents or may change the electronic mail address to which such documents are to be delivered (if Optionee has provided an electronic mail address) at any time by notifying the Company of such revoked consent or revised e-mail address by telephone, postal service or electronic mail. Finally, the Optionee understands that he or she is not required to consent to electronic delivery of documents described in this Section 15.

**Twilio Inc.**

By: \_\_\_\_\_

Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Optionee (including through an online acceptance process) is acceptable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Optionee's Signature

Optionee's name and address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**TWILIO INC.**

**2016 STOCK OPTION AND INCENTIVE PLAN  
NON-QUALIFIED STOCK OPTION AGREEMENT**

**FOR NON-EMPLOYEE DIRECTORS  
COUNTRY APPENDIX**

***Terms and Conditions***

This Appendix includes additional terms and conditions that govern the award of Stock Options under the Plan if the Optionee works or resides in one of the countries listed below. Certain capitalized terms used but not defined herein shall have the meanings set forth in the Plan and/or this Agreement to which this country-specific Appendix is attached.

If the Optionee is a citizen or resident of a country (or is considered such for purposes of the local governing law) other than the one in which he or she is currently working, or if the Optionee relocates to another country after the date of grant, or if the Optionee's service status changes, the terms and conditions and the information contained herein may not be applicable in the same manner to the Optionee. The Company will, at its sole discretion, determine the extent to which the terms and conditions contained herein will be applicable to the Optionee under these circumstances.

***Notifications***

This Appendix also includes information regarding exchange controls and certain other issues of which the Optionee should be aware with respect to the Optionee's participation in the Plan. The information is based on the securities, exchange control and other laws in effect in the respective countries as of October 2015. Such laws are often complex and change frequently. As a result, the Company strongly recommends that the Optionee not rely on the information noted herein as the only source of information relating to the consequences of the Optionee's participation in the Plan because the information may be out of date at the time the Optionee exercises the Stock Options, acquires shares or sells shares acquired under the Plan.

In addition, the information is general in nature and may not apply to the Optionee's particular situation, and the Company is not in a position to assure the Optionee of any particular result. Accordingly, the Optionee is advised to seek appropriate professional advice as to how the relevant laws in the Optionee's country may apply to the Optionee's situation.

**COLOMBIA**

***Notifications***

Foreign Exchange / Ownership Information. Prior approval from a government authority is not required to purchase and hold foreign securities or to receive an equity award. However, if the purchase of foreign securities is made through a foreign exchange intermediary (i.e., with funds located in Colombia that are then transferred abroad), a Form No. 4 will be required in order to register the investment with the Colombian Central Bank. The purchase of foreign securities may also be completed with funds you already hold abroad. In this scenario, no investment registration is required unless the value of foreign investments, including the value of any equity awards, as of December 31st of any given

year, equals or exceeds US \$500,000. In such case, the investments must be registered with the Colombian Central Bank by June 30th of the following year by filing a Form No. 11.

## **ESTONIA**

There are no country specific provisions.

## **GERMANY**

### ***Notifications***

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank. If you use a German bank to transfer a cross-border payment in excess of €12,500 in connection with the sale of shares acquired under the Plan, the bank will make the report for you. In addition, you must report any receivables, payables, or debts in foreign currency exceeding an amount of €5,000,000 on a monthly basis.

Securities Disclaimer. The grant of the Stock Options is exempt from the requirement to publish a prospectus under the EU Prospectus Directive as implemented in Germany.

## **HONG KONG**

### ***Notifications***

Securities Law Notice. The Stock Options and shares issued upon exercise do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Company or its Subsidiaries and affiliates. The Agreement, including this Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a “prospectus” for a public offering of securities under the applicable securities legislation in Hong Kong and have not been registered with or reviewed or authorized by any regulatory authority in Hong Kong, including the Securities and Futures Commission. The Stock Options, the Agreement, the Plan, and any other related materials are intended only for the personal use of each eligible employee of the Company or any Subsidiary or affiliate and not for distribution to any other persons. If you are in any questions about any of the contents of the Agreement, including this Appendix, or the Plan or other related materials, you should obtain independent professional advice.

Sale of Shares. Shares of Stock issued at exercise of the Stock Options are accepted as a personal investment. In the event your Stock Options are exercised and shares of Stock are issued to you within six months of the Date of Grant, you agree that the Stock may not be offered to the public or otherwise disposed of prior to the six-month anniversary of the Date of Grant.

## **IRELAND**

### ***Notifications***

Director Reporting. If you are a director or shadow director of the Company or related company, you may be subject to special reporting requirements with regard to the acquisition of shares or rights over shares. Please contact your personal legal advisor for further details if you are a director or shadow director.

Securities Disclaimer. The grant of the Stock Options is exempt from the requirement to publish a prospectus under the EU Prospectus Directive as implemented in Ireland.

## **SINGAPORE**

### ***Notifications***

Securities Law Information. The Stock Options are being granted to the Optionee pursuant to the “Qualifying Person” exemption under section 273(1)(f) of the Singapore Securities and Futures Act (Chapter 289, 2006 Ed.) (“**SFA**”) and is not made to the Optionee with a view to the shares being subsequently offered for sale to any other party. The Plan has not been lodged or registered as a prospectus with the Monetary Authority of Singapore. The Optionee should note that the Stock Options are subject to section 257 of the SFA, and the Optionee will not be able to make any subsequent sale in Singapore, or any offer of such subsequent sale of the shares underlying the Stock Options, unless such sale or offer in Singapore is made pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Director Notification Obligation. If the Optionee is a director, associate director or shadow director of a Subsidiary of the Company in Singapore, the Optionee is subject to certain notification requirements under the Singapore Companies Act. Among these requirements is an obligation to notify the Singaporean Subsidiary in writing when the Optionee receives an interest (*e.g.*, Stock Options, shares) in the Company or any Subsidiary. In addition, the Optionee must notify the Singapore Subsidiary when the Optionee sells shares of the Company or any Subsidiary (including when the Optionee sell shares acquired through the exercise of the Optionee’s Stock Options). These notifications must be made within two business days of acquiring or disposing of any interest in the Company or any Subsidiary. In addition, a notification must be made of the Optionee’s interests in the Company or any Subsidiary within two business days of becoming a director.

Insider-Trading Notification. The Optionee should be aware of the Singapore insider-trading rules, which may impact his or her acquisition or disposal of Stock Options or rights to shares under the Plan. Under the Singapore insider-trading rules, the Optionee is prohibited from selling Shares when he or she possesses information, not generally available, which the Optionee knows or should know will have a material effect on the price of the Shares once such information is generally available

## **UNITED KINGDOM**

### ***Terms and Conditions***

#### Responsibility for Taxes.

If payment or withholding of the income tax due is not made within 90 days of the end of the U.K. tax year (April 6 - April 5) or such other period specified in Section 222(1)(c) of the U.K. Income Tax (Earnings and Pensions) Act 2003 (the “Due Date”), the amount of any uncollected income tax will constitute a loan owed by the Optionee to Company or the employer effective on the Due Date. The Optionee agrees that the loan will bear interest at the then-current Official Rate of Her Majesty’s Revenue and Customs (“HMRC”), it will be immediately due and repayable, and the Company or the Employer may recover it at any time thereafter by any of the means referred to in Section 6 of the Agreement.

Notwithstanding the foregoing, if the Optionee is a director or executive officer of the Company (within the meaning of Section 13(k) of the Exchange Act), he or she will not be eligible for such a loan to cover

the income tax due as described above. In the event that the Optionee is such a director or executive officer and the income tax is not collected from or paid by the Optionee by the Due Date, the amount of any uncollected income tax may constitute a benefit to the Optionee on which additional income tax and national insurance contributions may be payable. The Optionee is responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime. The Optionee is responsible for reimbursing the Company or the employer (as applicable) for the value of any employee national insurance contribution due on this additional benefit and acknowledges that the Company or the Employer may recover such amount from him or her by any of the means referred to in Section 6 of the Agreement.

HMRC National Insurance Contributions. The following supplements Section 6 of the Agreement: Optionee agrees that:

- (a) Tax-Related Items shall include any secondary class 1 (employer) National Insurance Contributions that:
  - (i) any employer (or former employer) of the Optionee is liable to pay (or reasonably believes it is liable to pay); and
  - (ii) may be lawfully recovered from the Optionee; and
- (b) if required to do so by the Company (at any time when the relevant election can be made) the Optionee shall:
  - (i) make a joint election (with the employer or former employer) in the form provided by the Company to transfer to the Optionee the whole or any part of the employer's liability that falls within Section 6 of the Agreement; and
  - (ii) enter into arrangements required by HM Revenue & Customs (or any other tax authority) to secure the payment of the transferred liability.

Restricted Securities Elections. If required to do so by the Company (at any time when the relevant election can be made), the Optionee shall enter into a joint election (with the appropriate employer) under section 431(1) or section 431(2) of Income Tax (Earnings & Pensions) Act 2003 in respect of:

- (a) any shares acquired (or to be acquired) on exercise of the Stock Options;
- (b) any securities acquired (or to be acquired) as a result of any surrender of the Stock Options; and

any securities acquired (or to be acquired) as a result of holding either shares acquired on exercise of the Stock Options or securities specified in above or in this notification.

Securities Disclaimer. Neither this Agreement nor Appendix is an approved prospectus for the purposes of section 85(1) of the Financial Services and Markets Act 2000 ("FSMA") and no offer of transferable securities to the public (for the purposes of section 102B of FSMA) is being made in connection with the Plan.



**NON-QUALIFIED STOCK OPTION AGREEMENT**  
**FOR COMPANY EMPLOYEES**  
**UNDER THE TWILIO INC.**  
**2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Optionee:

No. of Option Shares:

Option Exercise Price per Share:           US\$  
**[FMV on Grant Date]**

Grant Date:

Expiration Date:

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan as amended through the date hereof (the “Plan”), Twilio Inc. (the “Company”) hereby grants to the Optionee named above an option (the “Stock Option”) to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Class A Common Stock, par value \$0.001 per share (the “Stock”) of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan. This Stock Option is not intended to be an “incentive stock option” under Section 422 of the Internal Revenue Code of 1986, as amended.

1. Exercisability Schedule. No portion of this Stock Option may be exercised until such portion shall have become exercisable. Except as set forth below, and subject to the discretion of the Administrator (as defined in Section 2 of the Plan) to accelerate the exercisability schedule hereunder, this Stock Option shall be exercisable with respect to the following number of Option Shares on the dates indicated so long as Optionee remains an employee of the Company or a Subsidiary on such dates:

Incremental Number of Option Shares Exercisable	Exercisability Date
( )	
( )	
( )	
( )	
( )	

Once exercisable, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. Manner of Exercise.

(a) The Optionee may exercise this Stock Option only in the following manner: from time to time on or prior to the Expiration Date of this Stock Option, the Optionee may give written



notice to the Administrator of his or her election to purchase some or all of the Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the Optionee on the open market or that are beneficially owned by the Optionee and are not then subject to any restrictions under any Company plan and that otherwise satisfy any holding periods as may be required by the Administrator; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; (iv) by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; or (v) a combination of (i), (ii), (iii) and (iv) above. Payment instruments will be received subject to collection.

The transfer to the Optionee on the records of the Company or of the transfer agent of the Option Shares will be contingent upon (i) the Company's receipt from the Optionee of the full purchase price for the Option Shares, as set forth above, (ii) the fulfillment of any other requirements contained herein or in the Plan or in any other agreement or provision of laws, and (iii) the receipt by the Company of any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Stock Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations. In the event the Optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the Optionee upon the exercise of the Stock Option shall be net of the shares attested to.

(b) The shares of Stock purchased upon exercise of this Stock Option shall be transferred to the Optionee on the records of the Company or of the transfer agent upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such transfer and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company or the transfer agent shall have transferred the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) The minimum number of shares with respect to which this Stock Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

(d) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination of Employment. If the Optionee's employment by the Company or a Subsidiary (as defined in the Plan) is terminated, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination Due to Death. If the Optionee's employment terminates by reason of the Optionee's death, any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of death, may thereafter be exercised by the Optionee's legal representative or legatee for a period of 12 months from the date of death or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of death shall terminate immediately and be of no further force or effect.

(b) Termination Due to Disability. If the Optionee's employment terminates by reason of the Optionee's disability (as determined by the Administrator), any portion of this Stock Option outstanding on such date, to the extent exercisable on the date of such termination of employment, may thereafter be exercised by the Optionee for a period of 12 months from the date of disability or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of disability shall terminate immediately and be of no further force or effect.

(c) Termination for Cause. If the Optionee's employment terminates for Cause, any portion of this Stock Option outstanding on such date shall terminate immediately and be of no further force and effect. For purposes hereof, "Cause" shall mean, unless otherwise provided in an employment agreement between the Company and the Optionee, a determination by the Administrator that the Optionee shall be dismissed as a result of (i) any material breach by the Optionee of any agreement between the Optionee and the Company; (ii) the conviction of, indictment for or plea of nolo contendere by the Optionee to a felony or a crime involving moral turpitude; or (iii) any material misconduct or willful and deliberate non-performance (other than by reason of disability) by the Optionee of the Optionee's duties to the Company.

(d) Other Termination. If the Optionee's employment terminates for any reason other than the Optionee's death, the Optionee's disability or Cause, and unless otherwise determined by the Administrator, any portion of this Stock Option outstanding on such date may be exercised, to the extent exercisable on the date of termination, for a period of three months from the date of termination or until the Expiration Date, if earlier. Any portion of this Stock Option that is not exercisable on the date of termination shall terminate immediately and be of no further force or effect.

The Administrator's determination of the reason for termination of the Optionee's employment shall be conclusive and binding on the Optionee and his or her representatives or legatees.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. Tax Withholding. The Optionee shall, not later than the date as of which Stock Option becomes taxable, whether upon exercise or such other event, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes and/or social insurance contributions required by law to be withheld on account of such taxable event (“Tax-Related Items”). The Company shall have the authority to cause the Tax-Related Items to be satisfied, in whole or in part, by withholding from shares of Stock to be issued to the Optionee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the Tax-Related Items. The Optionee’s responsibility and may exceed the amount actually withheld by the Company. The Optionee further acknowledges that the Company (a) makes no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Stock Options, including, without limitation, the grant, vesting, exercise or settlement of the Stock Options, the subsequent sale of shares acquired pursuant to such issuance, and the receipt of any dividends; and (b) does not commit to and is under no obligation to structure the terms of the grant or any aspect of the Stock Options to reduce or eliminate the Optionee’s liability for Tax-Related Items or achieve any particular tax result. The Optionee shall not make any claim against the Company or its Board, officers or employees related to Tax-Related Items arising from the Stock Options or the Optionee’s other compensation. Furthermore, if the Optionee has become subject to tax in more than one jurisdiction between the date of grant and the date of any relevant taxable or tax withholding event, as applicable, the Optionee acknowledges that the Company may be required to withhold or account for Tax-Related Items in more than one jurisdiction. Finally, the Optionee shall pay to the Company any amount of Tax-Related Items that the Company may be required to withhold or account for as a result of the Optionee’s participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver the shares or the proceeds of the sale of shares if the Optionee fails to comply with his or her obligations in connection with the Tax-Related Items.

7. Service Terms and Acknowledgments. In accepting the Stock Options, the Optionee acknowledges, understands and agrees as follows:

- (a) the Plan is established voluntarily by the Company and it is discretionary in nature;
- (b) the grant of the Stock Options is voluntary and occasional and does not create any contractual or other right to receive future grants of Stock Options, or benefits in lieu of Stock Options, even if Stock Options have been granted in the past;
- (c) all decisions with respect to future Stock Options or other grants, if any, will be at the sole discretion of the Company;
- (d) the Optionee is voluntarily participating in the Plan;
- (e) the Stock Options and any shares of Stock acquired under the Plan are not intended to replace any pension rights or compensation;
- (f) the Stock Options and any shares of Stock acquired under the Plan, and the income and value of same, are not part of normal or expected compensation for any purpose, including, without limitation, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, pension or retirement benefits or payments or welfare benefits or similar payments;
- (g) the future value of the shares of Stock underlying the Stock Options is unknown, indeterminable, and cannot be predicted with certainty;

(i) if the Optionee acquires shares of Stock, the value of such shares may increase or decrease in value;

(j) for purposes of the Stock Options, the Optionee's right to vest in the Stock Options under the Plan, if any, will terminate as of the date of the Optionee ceases to be a service provider and will not be extended by any notice period (e.g., the Optionee's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where the Optionee is employed or providing services or the terms of the Optionee's employment or service agreement, if any); the Administrator shall have the exclusive discretion to determine the date of the Optionee ceases to be a service provider for purposes of the Stock Options (including whether the Optionee may still be considered to be providing services while on a leave of absence);

(k) unless otherwise provided in the Plan or by the Company in its discretion, the Stock Options and the benefits evidenced by this Agreement do not create any entitlement to have the Stock Options or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; and

(l) the Optionee acknowledges and agrees that neither the Company, nor any Subsidiary shall be liable for any foreign exchange rate fluctuation between the Optionee's local currency and the U.S. Dollar that may affect the value of the Stock Options or of any amounts due to the Optionee pursuant to the exercise of the Stock Options or the subsequent sale of any shares of Stock.

8. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

9. Data Privacy Consent. *Optionee hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of the Optionee's personal data as described in this Agreement and any other Stock Options grant materials ("Data") by and among, as applicable, Company, and Subsidiary for the exclusive purpose of implementing, administering and managing the Optionee's participation in the Plan. The Optionee understands that the Company may hold certain personal information about the Optionee, including, but not limited to, the Optionee's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Company, details of all Stock Options or any other entitlement to shares awarded, canceled, vested, unvested, exercised or outstanding in the Optionee's favor, for the exclusive purpose of implementing, administering and managing the Plan. The Optionee understands that Data will be transferred to a stock plan service provider as may be selected by the Company in the future, which may be assisting the Company with the implementation, administration and management of the Plan. The Optionee understands that the recipients of the Data may be located in the U.S. or elsewhere, and that the recipient's country (e.g., the U.S.) may have different including less stringent data privacy laws and protections than the Optionee's country. The Optionee understands that if he or she resides outside the U.S., he or she may request a list with the names and addresses of any potential recipients of the Data by contacting his or her local human resources representative. The Optionee authorizes the Company, its Subsidiaries and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purposes of implementing,*

*administering and managing the Optionee's participation in the Plan. The Optionee understands that Data will be held only as long as is necessary to implement, administer and manage the Optionee's participation in the Plan. The Optionee understands that if he or she resides outside the U.S., he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. Further, the Optionee understands that he or she is providing the consents herein on a purely voluntary basis. If the Optionee does not consent, or if the Optionee later seeks to revoke his or her consent, his or her employment status or service and career with the Company will not be adversely affected; the only consequence of refusing or withdrawing the Optionee's consent is that the Company would not be able to grant the Optionee Stock Options or other equity awards or administer or maintain such awards. Therefore, the Optionee understands that refusing or withdrawing his or her consent may affect the Optionee's ability to participate in the Plan. For more information on the consequences of the Optionee's refusal to consent or withdrawal of consent, the Optionee understands that he or she may contact his or her local human resources representative.*

10. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Optionee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

11. Country-Specific Appendix. Notwithstanding any provisions in this Agreement, the Stock Options shall be subject to any special terms and conditions and notifications set forth in any Appendix to this Agreement for the Optionee's country. Moreover, if the Optionee relocates to one of the countries included in the Appendix, the special terms and conditions and notifications for such country will apply to the Optionee, to the extent the Company determines that the application of such terms and conditions and notifications is necessary or advisable for legal or administrative reasons. This Agreement and any Appendices thereto are referred to jointly as this Agreement.

12. Foreign Exchange. The Optionee acknowledges and agrees that the Optionee may be responsible for reporting inbound or outbound transactions or fund transfers that exceed a certain amount. The Optionee is advised to seek appropriate professional advice as to how the exchange control regulations apply to the Stock Options and the Optionee's specific situation and understands that the relevant laws and regulations can change frequently and occasionally on a retroactive basis.

13. Translation. To the extent that the Optionee has been provided with a translation of this Agreement, the English language version of this Agreement shall prevail in case of any discrepancies or ambiguities due to translation or inconsistencies or conflicts between different language versions of this Agreement.

14. Electronic Delivery of Documents. The Optionee agrees that the Company may deliver electronically or by email all documents relating to the Plan or Stock Options (including, without limitation, a copy of the Plan) and all other documents that the Company is required to deliver to its security holders. The Optionee also agrees that the Company may deliver these documents by posting them on a website maintained by the Company or by a third party under contract with the Company. If the Company posts these documents on a website, it shall notify the Optionee by email. The Optionee acknowledges that he or she may receive from the Company a paper copy of any documents delivered or posted electronically at no cost to the Optionee by contacting the Company by telephone or in writing.

The Optionee further acknowledges that the Optionee will be provided with a paper copy of any documents if the attempted electronic delivery of such documents fails. Similarly, the Optionee understands that the Optionee must provide the Company or any designated third party administrator with a paper copy of any documents if the attempted electronic delivery of such documents fails. The Optionee may revoke his or her consent to the electronic delivery of documents or may change the electronic mail address to which such documents are to be delivered (if Optionee has provided an electronic mail address) at any time by notifying the Company of such revoked consent or revised e-mail address by telephone, postal service or electronic mail. Finally, the Optionee understands that he or she is not required to consent to electronic delivery of documents described in this Section 14.

**Twilio Inc.**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Optionee (including through an online acceptance process) is acceptable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Optionee's Signature

Optionee's name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**TWILIO INC.**

**2016 STOCK OPTION AND INCENTIVE PLAN  
NON-QUALIFIED STOCK OPTION AGREEMENT**

**FOR COMPANY EMPLOYEES  
COUNTRY APPENDIX**

***Terms and Conditions***

This Appendix includes additional terms and conditions that govern the award of Stock Options under the Plan if the Optionee works or resides in one of the countries listed below. Certain capitalized terms used but not defined herein shall have the meanings set forth in the Plan and/or this Agreement to which this country-specific Appendix is attached.

If the Optionee is a citizen or resident of a country (or is considered such for purposes of the local governing law) other than the one in which he or she is currently working, or if the Optionee relocates to another country after the date of grant, or if the Optionee's employment status changes from Employee, the terms and conditions and the information contained herein may not be applicable in the same manner to the Optionee. The Company will, at its sole discretion, determine the extent to which the terms and conditions contained herein will be applicable to the Optionee under these circumstances.

***Notifications***

This Appendix also includes information regarding exchange controls and certain other issues of which the Optionee should be aware with respect to the Optionee's participation in the Plan. The information is based on the securities, exchange control and other laws in effect in the respective countries as of October 2015. Such laws are often complex and change frequently. As a result, the Company strongly recommends that the Optionee not rely on the information noted herein as the only source of information relating to the consequences of the Optionee's participation in the Plan because the information may be out of date at the time the Optionee exercises the Stock Options, acquires shares or sells shares acquired under the Plan.

In addition, the information is general in nature and may not apply to the Optionee's particular situation, and the Company is not in a position to assure the Optionee of any particular result. Accordingly, the Optionee is advised to seek appropriate professional advice as to how the relevant laws in the Optionee's country may apply to the Optionee's situation.

**COLOMBIA**

***Notifications***

Foreign Exchange / Ownership Information. Prior approval from a government authority is not required to purchase and hold foreign securities or to receive an equity award. However, if the purchase of foreign securities is made through a foreign exchange intermediary (i.e., with funds located in Colombia that are then transferred abroad), a Form No. 4 will be required in order to register the investment with the Colombian Central Bank. The purchase of foreign securities may also be completed with funds you already hold abroad. In this scenario, no investment registration is required unless the value of foreign investments, including the value of any equity awards, as of December 31st of any given

year, equals or exceeds US \$500,000. In such case, the investments must be registered with the Colombian Central Bank by June 30th of the following year by filing a Form No. 11.

## **ESTONIA**

There are no country specific provisions.

## **GERMANY**

### ***Notifications***

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank. If you use a German bank to transfer a cross-border payment in excess of €12,500 in connection with the sale of shares acquired under the Plan, the bank will make the report for you. In addition, you must report any receivables, payables, or debts in foreign currency exceeding an amount of €5,000,000 on a monthly basis.

Securities Disclaimer. The grant of the Stock Options is exempt from the requirement to publish a prospectus under the EU Prospectus Directive as implemented in Germany.

## **HONG KONG**

### ***Notifications***

Securities Law Notice. The Stock Options and shares issued upon exercise do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Company or its Subsidiaries and affiliates. The Agreement, including this Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a “prospectus” for a public offering of securities under the applicable securities legislation in Hong Kong and have not been registered with or reviewed or authorized by any regulatory authority in Hong Kong, including the Securities and Futures Commission. The Stock Options, the Agreement, the Plan, and any other related materials are intended only for the personal use of each eligible employee of the Company or any Subsidiary or affiliate and not for distribution to any other persons. If you are in any questions about any of the contents of the Agreement, including this Appendix, or the Plan or other related materials, you should obtain independent professional advice.

Sale of Shares. Shares of Stock issued at exercise of the Stock Options are accepted as a personal investment. In the event your Stock Options are exercised and shares of Stock are issued to you within six months of the Date of Grant, you agree that the Stock may not be offered to the public or otherwise disposed of prior to the six-month anniversary of the Date of Grant.

## **IRELAND**

### ***Notifications***

Director Reporting. If you are a director or shadow director of the Company or related company, you may be subject to special reporting requirements with regard to the acquisition of shares or rights over shares. Please contact your personal legal advisor for further details if you are a director or shadow director.



Securities Disclaimer. The grant of the Stock Options is exempt from the requirement to publish a prospectus under the EU Prospectus Directive as implemented in Ireland.

## **SINGAPORE**

### ***Notifications***

Securities Law Information. The Stock Options are being granted to the Optionee pursuant to the “Qualifying Person” exemption under section 273(1)(f) of the Singapore Securities and Futures Act (Chapter 289, 2006 Ed.) (“*SFA*”) and is not made to the Optionee with a view to the shares being subsequently offered for sale to any other party. The Plan has not been lodged or registered as a prospectus with the Monetary Authority of Singapore. The Optionee should note that the Stock Options are subject to section 257 of the SFA, and the Optionee will not be able to make any subsequent sale in Singapore, or any offer of such subsequent sale of the shares underlying the Stock Options, unless such sale or offer in Singapore is made pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Director Notification Obligation. If the Optionee is a director, associate director or shadow director of a Subsidiary of the Company in Singapore, the Optionee is subject to certain notification requirements under the Singapore Companies Act. Among these requirements is an obligation to notify the Singaporean Subsidiary in writing when the Optionee receives an interest (*e.g.*, Stock Options, shares) in the Company or any Subsidiary. In addition, the Optionee must notify the Singapore Subsidiary when the Optionee sells shares of the Company or any Subsidiary (including when the Optionee sell shares acquired through the exercise of the Optionee’s Stock Options). These notifications must be made within two business days of acquiring or disposing of any interest in the Company or any Subsidiary. In addition, a notification must be made of the Optionee’s interests in the Company or any Subsidiary within two business days of becoming a director.

Insider-Trading Notification. The Optionee should be aware of the Singapore insider-trading rules, which may impact his or her acquisition or disposal of Stock Options or rights to shares under the Plan. Under the Singapore insider-trading rules, the Optionee is prohibited from selling shares when he or she possesses information, not generally available, which the Optionee knows or should know will have a material effect on the price of the shares once such information is generally available

## **UNITED KINGDOM**

### ***Terms and Conditions***

#### **Responsibility for Taxes.**

If payment or withholding of the income tax due is not made within 90 days of the end of the U.K. tax year (April 6 - April 5) or such other period specified in Section 222(1)(c) of the U.K. Income Tax (Earnings and Pensions) Act 2003 (the “Due Date”), the amount of any uncollected income tax will constitute a loan owed by the Optionee to Company or the employer effective on the Due Date. The Optionee agrees that the loan will bear interest at the then-current Official Rate of Her Majesty’s Revenue and Customs (“HMRC”), it will be immediately due and repayable, and the Company or the Employer may recover it at any time thereafter by any of the means referred to in Section 6 of the Agreement.

Notwithstanding the foregoing, if the Optionee is a director or executive officer of the Company (within the meaning of Section 13(k) of the Exchange Act), he or she will not be eligible for such a loan to cover

the income tax due as described above. In the event that the Optionee is such a director or executive officer and the income tax is not collected from or paid by the Optionee by the Due Date, the amount of any uncollected income tax may constitute a benefit to the Optionee on which additional income tax and national insurance contributions may be payable. The Optionee is responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime. The Optionee is responsible for reimbursing the Company or the employer (as applicable) for the value of any employee national insurance contribution due on this additional benefit and acknowledges that the Company or the Employer may recover such amount from him or her by any of the means referred to in Section 6 of the Agreement.

HMRC National Insurance Contributions. The following supplements Section 6 of the Agreement: Optionee agrees that:

- (a) Tax-Related Items shall include any secondary class 1 (employer) National Insurance Contributions that:
  - (i) any employer (or former employer) of the Optionee is liable to pay (or reasonably believes it is liable to pay); and
  - (ii) may be lawfully recovered from the Optionee; and
- (b) if required to do so by the Company (at any time when the relevant election can be made) the Optionee shall:
  - (i) make a joint election (with the employer or former employer) in the form provided by the Company to transfer to the Optionee the whole or any part of the employer's liability that falls within Section 6 of the Agreement; and
  - (ii) enter into arrangements required by HM Revenue & Customs (or any other tax authority) to secure the payment of the transferred liability.

Restricted Securities Elections. If required to do so by the Company (at any time when the relevant election can be made), the Optionee shall enter into a joint election (with the appropriate employer) under section 431(1) or section 431(2) of Income Tax (Earnings & Pensions) Act 2003 in respect of:

- (a) any shares acquired (or to be acquired) on exercise of the Stock Options;
- (b) any securities acquired (or to be acquired) as a result of any surrender of the Stock Options; and

any securities acquired (or to be acquired) as a result of holding either shares acquired on exercise of the Stock Options or securities specified in above or in this notification.

Securities Disclaimer. Neither this Agreement nor Appendix is an approved prospectus for the purposes of section 85(1) of the Financial Services and Markets Act 2000 ("FSMA") and no offer of transferable securities to the public (for the purposes of section 102B of FSMA) is being made in connection with the Plan. The Plan and the Stock Options are granted exclusively under this Agreement in the UK to bona fide employees and former employees and any other UK Subsidiary.

**RESTRICTED STOCK UNIT AWARD AGREEMENT**

**FOR NON-EMPLOYEE DIRECTORS**

**UNDER THE TWILIO INC.**

**2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Grantee:

No. of Restricted Stock Units:

Grant Date:

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Twilio Inc. (the "Company") hereby grants an award of the number of Restricted Stock Units listed above (an "Award") to the Grantee named above. Each Restricted Stock Unit shall relate to one share of Class A Common Stock, par value \$0.001 per share (the "Stock") of the Company.

1. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.

2. Vesting of Restricted Stock Units. The restrictions and conditions of Paragraph 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee remains in service as a member of the Board on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.

**Incremental Number of  
Restricted Stock Units Vested**

**Vesting Date**

( )

( )

( )

( )

The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.

3. Termination of Service. If the Grantee's service with the Company and its Subsidiaries terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and neither the Grantee nor any of his or her successors, heirs, assigns, or personal representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units.

4. Issuance of Shares of Stock. As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Tax Responsibility. The Grantee acknowledges that the Company (a) makes no representations or undertakings regarding any Federal, state, and local taxes and/or social insurance contributions applicable to any aspect of the Restricted Stock Units (“Tax-Related Items”), including, without limitation, the grant, vesting, or settlement of the Restricted Stock Units, the subsequent sale of shares acquired pursuant to such issuance, and the receipt of any dividends; and (b) does not commit to and is under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate the Grantee’s liability for Tax-Related Items or achieve any particular tax result. The Grantee shall not make any claim against the Company or its Board, officers or employees related to Tax-Related Items arising from the Restricted Stock Units or the Grantee’s other compensation.

7. No Obligation to Continue as a Director. Neither the Plan nor this Award confers upon the Grantee any rights with respect to continuance as a Director.

8. Section 409A of the Code. This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as “short-term deferrals” as described in Section 409A of the Code.

9. Service Terms and Acknowledgments. In accepting the Restricted Stock Units, the Grantee acknowledges, understands and agrees as follows:

(a) the Plan is established voluntarily by the Company and it is discretionary in nature;

(b) the grant of the Restricted Stock Units is voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;

(c) all decisions with respect to future Restricted Stock Units or other grants, if any, will be at the sole discretion of the Company;

(d) the Grantee is voluntarily participating in the Plan;

(e) the Restricted Stock Units and any shares of Stock acquired under the Plan are not intended to replace any pension rights or compensation;

(f) the Restricted Stock Units and any shares of Stock acquired under the Plan, and the income and value of same, are not part of normal or expected compensation for any purpose, including, without limitation, calculating any severance, resignation, termination, redundancy, dismissal,

end-of-service payments, bonuses, long-service awards, pension or retirement benefits or payments or welfare benefits or similar payments;

(g) the future value of the shares of Stock underlying the Restricted Stock Units is unknown, indeterminable, and cannot be predicted with certainty;

(h) if the Grantee acquires shares of Stock, the value of such shares may increase or decrease in value;

(i) for purposes of the Restricted Stock Units, the Grantee's right to vest in the Restricted Stock Units under the Plan, if any, will terminate as of the date of the Grantee ceases to be a service provider and will not be extended by any notice period (e.g., the Grantee's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where the Grantee is employed or providing services or the terms of the Grantee's employment or service agreement, if any); the Administrator shall have the exclusive discretion to determine the date of the Grantee ceases to be a service provider for purposes of the Restricted Stock Units (including whether the Grantee may still be considered to be providing services while on a leave of absence);

(j) unless otherwise provided in the Plan or by the Company in its discretion, the Restricted Stock Units and the benefits evidenced by this Agreement do not create any entitlement to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; and

(k) the Grantee acknowledges and agrees that neither the Company, nor any Subsidiary shall be liable for any foreign exchange rate fluctuation between the Grantee's local currency and the U.S. Dollar that may affect the value of the Restricted Stock Units or of any amounts due to the Grantee pursuant to the vesting of the Restricted Stock Units or the subsequent sale of any shares of Stock.

10. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

11. Data Privacy Consent. ***The Grantee hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of the Grantee's personal data as described in this Agreement and any other Restricted Stock Units grant materials ("Data") by and among, as applicable, Company, and Subsidiary for the exclusive purpose of implementing, administering and managing the Grantee's participation in the Plan. The Grantee understands that the Company may hold certain personal information about the Grantee, including, but not limited, the Grantee's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Company, details of all Restricted Stock Units or any other entitlement to shares awarded, canceled, vested, unvested or outstanding in the Grantee's favor, for the exclusive purpose of implementing, administering and managing the Plan. The Grantee understands that Data will be transferred to a stock plan service provider as may selected by the Company in the future, which may be assisting the Company with the implementation, administration and management of the Plan. The Grantee understands that the recipients of the Data may be located in the U.S. or elsewhere, and that the recipient's country (e.g., the***

*U.S.) may have different including less stringent data privacy laws and protections than the Grantee's country. The Grantee understands that if he or she resides outside the U.S., he or she may request a list with the names and addresses of any potential recipients of the Data by contacting his or her local human resources representative. The Grantee authorizes the Company, its Subsidiaries and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purposes of implementing, administering and managing the Grantee's participation in the Plan. The Grantee understands that Data will be held only as long as is necessary to implement, administer and manage the Grantee's participation in the Plan. The Grantee understands that if he or she resides outside the U.S., he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. Further, the Grantee understands that he or she is providing the consents herein on a purely voluntary basis. If the Grantee does not consent, or if the Grantee later seeks to revoke his or her consent, his or her employment status or service and career with the Company will not be adversely affected; the only consequence of refusing or withdrawing the Grantee's consent is that the Company would not be able to grant the Grantee Restricted Stock Units or other equity awards or administer or maintain such awards. Therefore, the Grantee understands that refusing or withdrawing his or her consent may affect the Grantee's ability to participate in the Plan. For more information on the consequences of the Grantee's refusal to consent or withdrawal of consent, the Grantee understands that he or she may contact his or her local human resources representative.*

12. Country-Specific Appendix. Notwithstanding any provisions in this Agreement, the Restricted Stock Units shall be subject to any special terms and conditions and notifications set forth in any Appendix to this Agreement for the Grantee's country. Moreover, if the Grantee relocates to one of the countries included in the Appendix, the special terms and conditions and notifications for such country will apply to the Grantee, to the extent the Company determines that the application of such terms and conditions and notifications is necessary or advisable for legal or administrative reasons. This Agreement and any Appendices thereto are referred to jointly as this Agreement.

13. Foreign Exchange. The Grantee acknowledges and agrees that the Grantee may be responsible for reporting inbound transactions or fund transfers that exceed a certain amount. The Grantee is advised to seek appropriate professional advice as to how the exchange control regulations apply to the Restricted Stock Units and the Grantee's specific situation and understands that the relevant laws and regulations can change frequently and occasionally on a retroactive basis.

14. Translation. To the extent that the Grantee has been provided with a translation of this Agreement, the English language version of this Agreement shall prevail in case of any discrepancies or ambiguities due to translation or inconsistencies or conflicts between different language versions of this Agreement.

15. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

16. Electronic Delivery of Documents. The Grantee agrees that the Company may deliver electronically or by email all documents relating to the Plan or Restricted Stock Units (including, without

limitation, a copy of the Plan) and all other documents that the Company is required to deliver to its security holders. The Grantee also agrees that the Company may deliver these documents by posting them on a website maintained by the Company or by a third party under contract with the Company. If the Company posts these documents on a website, it shall notify the Grantee by email. The Grantee acknowledges that he or she may receive from the Company a paper copy of any documents delivered or posted electronically at no cost to the Grantee by contacting the Company by telephone or in writing. The Grantee further acknowledges that the Grantee will be provided with a paper copy of any documents if the attempted electronic delivery of such documents fails. Similarly, the Grantee understands that the Grantee must provide the Company or any designated third party administrator with a paper copy of any documents if the attempted electronic delivery of such documents fails. The Grantee may revoke his or her consent to the electronic delivery of documents or may change the electronic mail address to which such documents are to be delivered (if Grantee has provided an electronic mail address) at any time by notifying the Company of such revoked consent or revised e-mail address by telephone, postal service or electronic mail. Finally, the Grantee understands that he or she is not required to consent to electronic delivery of documents described in this Section 15.

**Twilio Inc.**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Grantee's Signature

Grantee's name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TWILIO INC.

2016 STOCK OPTION AND INCENTIVE PLAN  
RESTRICTED STOCK UNIT AWARD AGREEMENT  
COUNTRY APPENDIX — NON-EMPLOYEE DIRECTORS

***Terms and Conditions***

This Appendix includes additional terms and conditions that govern the award of Restricted Stock Units under the Plan if the Grantee works or resides in one of the countries listed below. Certain capitalized terms used but not defined herein shall have the meanings set forth in the Plan and/or this Agreement to which this country-specific Appendix is attached.

If the Grantee is a citizen or resident of a country (or is considered such for purposes of the local governing law) other than the one in which he or she is currently working, or if the Grantee relocates to another country after the date of grant, or if the Grantee's service status changes, the terms and conditions and the information contained herein may not be applicable in the same manner to the Grantee. The Company will, at its sole discretion, determine the extent to which the terms and conditions contained herein will be applicable to the Grantee under these circumstances.

***Notifications***

This Appendix also includes information regarding exchange controls and certain other issues of which the Grantee should be aware with respect to the Grantee's participation in the Plan. The information is based on the securities, exchange control and other laws in effect in the respective countries as of October 2015. Such laws are often complex and change frequently. As a result, the Company strongly recommends that the Grantee not rely on the information noted herein as the only source of information relating to the consequences of the Grantee's participation in the Plan because the information may be out of date at the time the Grantee exercises the Restricted Stock Units, acquires shares or sells shares acquired under the Plan.

In addition, the information is general in nature and may not apply to the Grantee's particular situation, and the Company is not in a position to assure the Grantee of any particular result. Accordingly, the Grantee is advised to seek appropriate professional advice as to how the relevant laws in the Grantee's country may apply to the Grantee's situation.

**COLOMBIA**

***Notifications***

Foreign Exchange / Ownership Information. Prior approval from a government authority is not required to purchase and hold foreign securities or to receive an equity award. However, if the purchase of foreign securities is made through a foreign exchange intermediary (i.e., with funds located in Colombia that are then transferred abroad), a Form No. 4 will be required in order to register the investment with the Colombian Central Bank. The purchase of foreign securities may also be completed with funds you already hold abroad. In this scenario, no investment registration is required unless the value of foreign investments, including the value of any equity awards, as of December 31st of any given year, equals or exceeds US \$500,000. In such case, the investments must be registered with the Colombian Central Bank by June 30th of the following year by filing a Form No. 11.



## **ESTONIA**

There are no country specific provisions.

## **GERMANY**

### ***Notifications***

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank. If you use a German bank to transfer a cross-border payment in excess of €12,500 in connection with the sale of shares acquired under the Plan, the bank will make the report for you. In addition, you must report any receivables, payables, or debts in foreign currency exceeding an amount of €5,000,000 on a monthly basis.

Securities Disclaimer. The grant of the Restricted Stock Units is exempt from the requirement to publish a prospectus under the EU Prospectus Directive as implemented in Germany.

## **HONG KONG**

### ***Notifications***

Securities Law Notice. The Restricted Stock Units and shares issued upon vesting do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Company or its Subsidiaries and affiliates. The Agreement, including this Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a “prospectus” for a public offering of securities under the applicable securities legislation in Hong Kong and have not been registered with or reviewed or authorized by any regulatory authority in Hong Kong, including the Securities and Futures Commission. The Restricted Stock Units, the Agreement, the Plan, and any other related materials are intended only for the personal use of each eligible employee of the Company or any Subsidiary or affiliate and not for distribution to any other persons. If you are in any questions about any of the contents of the Agreement, including this Appendix, or the Plan or other related materials, you should obtain independent professional advice.

Sale of Shares. Shares of Stock issued at vesting of the Restricted Stock Units are accepted as a personal investment. In the event your Restricted Stock Units vest and shares of Stock are issued to you within six months of the Date of Grant, you agree that the Stock may not be offered to the public or otherwise disposed of prior to the six-month anniversary of the Date of Grant.

## **IRELAND**

### ***Notifications***

Director Reporting. If you are a director or shadow director of the Company or related company, you may be subject to special reporting requirements with regard to the acquisition of shares or rights over shares. Please contact your personal legal advisor for further details if you are a director or shadow director.

Securities Disclaimer. The grant of the Restricted Stock Units is exempt from the requirement to publish a prospectus under the EU Prospectus Directive as implemented in Ireland.

## SINGAPORE

### *Notifications*

Securities Law Information. The Restricted Stock Units are being granted to the Grantee pursuant to the “Qualifying Person” exemption under section 273(1)(f) of the Singapore Securities and Futures Act (Chapter 289, 2006 Ed.) (“SFA”) and is not made to the Grantee with a view to the shares being subsequently offered for sale to any other party. The Plan has not been lodged or registered as a prospectus with the Monetary Authority of Singapore. The Grantee should note that the Restricted Stock Units are subject to section 257 of the SFA, and the Grantee will not be able to make any subsequent sale in Singapore, or any offer of such subsequent sale of the shares underlying the Restricted Stock Units, unless such sale or offer in Singapore is made pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Director Notification Obligation. If the Grantee is a director, associate director or shadow director of a Subsidiary of the Company in Singapore, the Grantee is subject to certain notification requirements under the Singapore Companies Act. Among these requirements is an obligation to notify the Singaporean Subsidiary in writing when the Grantee receives an interest (e.g., Restricted Stock Units, shares) in the Company or any Subsidiary. In addition, the Grantee must notify the Singapore Subsidiary when the Grantee sells shares of the Company or any Subsidiary (including when the Grantee sell shares acquired through the vesting of the Grantee’s Restricted Stock Units). These notifications must be made within two business days of acquiring or disposing of any interest in the Company or any Subsidiary. In addition, a notification must be made of the Grantee’s interests in the Company or any Subsidiary within two business days of becoming a director.

Insider-Trading Notification. The Grantee should be aware of the Singapore insider-trading rules, which may impact his or her acquisition or disposal of Restricted Stock Units or rights to shares under the Plan. Under the Singapore insider-trading rules, the Grantee is prohibited from selling shares when he or she possesses information, not generally available, which the Grantee knows or should know will have a material effect on the price of the shares once such information is generally available.

## UNITED KINGDOM

### *Terms and Conditions*

#### Responsibility for Taxes.

If payment or withholding of the income tax due is not made within 90 days of the end of the U.K. tax year (April 6 - April 5) or such other period specified in Section 222(1)(c) of the U.K. Income Tax (Earnings and Pensions) Act 2003 (the “Due Date”), the amount of any uncollected income tax will constitute a loan owed by the Grantee to Company or the employer effective on the Due Date. The Grantee agrees that the loan will bear interest at the then-current Official Rate of Her Majesty’s Revenue and Customs (“HMRC”), it will be immediately due and repayable, and the Company or the Employer may recover it at any time thereafter by any of the means referred to in Section II (9) of the Agreement.

Notwithstanding the foregoing, if the Grantee is a director or executive officer of the Company (within the meaning of Section 13(k) of the Exchange Act), he or she will not be eligible for such a loan to cover the income tax due as described above. In the event that the Grantee is such a director or executive

officer and the income tax is not collected from or paid by the Grantee by the Due Date, the amount of any uncollected income tax may constitute a benefit to the Grantee on which additional income tax and national insurance contributions may be payable. The Grantee is responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime. The Grantee is responsible for reimbursing the Company or the employer (as applicable) for the value of any employee national insurance contribution due on this additional benefit and acknowledges that the Company or the Employer may recover such amount from him or her by any of the means referred to in Section II(4) of the Agreement.

HMRC National Insurance Contributions. The following supplements Section 6 of the Agreement: Grantee agrees that:

- (a) Tax-Related Items shall include any secondary class 1 (employer) National Insurance Contributions that:
- (i) any employer (or former employer) of the Grantee is liable to pay (or reasonably believes it is liable to pay); and
  - (ii) may be lawfully recovered from the Grantee; and
- (b) if required to do so by the Company (at any time when the relevant election can be made) the Grantee shall:
- (i) make a joint election (with the employer or former employer) in the form provided by the Company to transfer to the Grantee the whole or any part of the employer's liability that falls within Section 6 of the Agreement; and
  - (ii) enter into arrangements required by HM Revenue & Customs (or any other tax authority) to secure the payment of the transferred liability.

Restricted Securities Elections. If required to do so by the Company (at any time when the relevant election can be made), the Grantee shall enter into a joint election (with the appropriate employer) under section 431(1) or section 431(2) of Income Tax (Earnings & Pensions) Act 2003 in respect of:

- (a) any shares acquired (or to be acquired) on vesting of the Restricted Stock Units;
- (b) any securities acquired (or to be acquired) as a result of any surrender of the Restricted Stock Units; and
- (c) any securities acquired (or to be acquired) as a result of holding either shares acquired on vesting of the Restricted Stock Units or securities specified in above or in this notification.

Securities Disclaimer. Neither this Agreement nor Appendix is an approved prospectus for the purposes of section 85(1) of the Financial Services and Markets Act 2000 ("FSMA") and no offer of transferable securities to the public (for the purposes of section 102B of FSMA) is being made in connection with the Plan.

**RESTRICTED STOCK UNIT AWARD AGREEMENT**

**FOR COMPANY EMPLOYEES**

**UNDER THE TWILIO INC.**

**2016 STOCK OPTION AND INCENTIVE PLAN**

Name of Grantee:

No. of Restricted Stock Units:

Grant Date:

Pursuant to the Twilio Inc. 2016 Stock Option and Incentive Plan as amended through the date hereof (the "Plan"), Twilio Inc. (the "Company") hereby grants an award of the number of Restricted Stock Units listed above (an "Award") to the Grantee named above. Each Restricted Stock Unit shall relate to one share of Class A Common Stock, par value \$0.001 per share (the "Stock") of the Company.

1. Restrictions on Transfer of Award. This Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of by the Grantee, and any shares of Stock issuable with respect to the Award may not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of until (i) the Restricted Stock Units have vested as provided in Paragraph 2 of this Agreement and (ii) shares of Stock have been issued to the Grantee in accordance with the terms of the Plan and this Agreement.

2. Vesting of Restricted Stock Units. The restrictions and conditions of Paragraph 1 of this Agreement shall lapse on the Vesting Date or Dates specified in the following schedule so long as the Grantee remains an employee of the Company or a Subsidiary on such Dates. If a series of Vesting Dates is specified, then the restrictions and conditions in Paragraph 1 shall lapse only with respect to the number of Restricted Stock Units specified as vested on such date.

**Incremental Number of  
Restricted Stock Units Vested**

**Vesting Date**

<b>Incremental Number of Restricted Stock Units Vested</b>	<b>Vesting Date</b>
( )	
( )	
( )	
( )	

The Administrator may at any time accelerate the vesting schedule specified in this Paragraph 2.

3. Termination of Employment. If the Grantee's employment with the Company and its Subsidiaries terminates for any reason (including death or disability) prior to the satisfaction of the vesting conditions set forth in Paragraph 2 above, any Restricted Stock Units that have not vested as of such date shall automatically and without notice terminate and be forfeited, and neither the Grantee nor any of his or her successors, heirs, assigns, or personal representatives will thereafter have any further rights or interests in such unvested Restricted Stock Units.

4. Issuance of Shares of Stock. As soon as practicable following each Vesting Date (but in no event later than two and one-half months after the end of the year in which the Vesting Date occurs), the Company shall issue to the Grantee the number of shares of Stock equal to the aggregate number of Restricted Stock Units that have vested pursuant to Paragraph 2 of this Agreement on such date and the Grantee shall thereafter have all the rights of a stockholder of the Company with respect to such shares.

5. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan, including the powers of the Administrator set forth in Section 2(b) of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

6. Tax Withholding. The Grantee shall, not later than the date as of which the Restricted Stock Units become taxable, pay to the Company or make arrangements satisfactory to the Administrator for payment of any Federal, state, and local taxes and/or social insurance contributions required by law to be withheld on account of such taxable event ("Tax-Related Items"). The Company shall have the authority to cause the Tax-Related Items to be satisfied, in whole or in part, by withholding from shares of Stock to be issued to the Grantee a number of shares of Stock with an aggregate Fair Market Value that would satisfy the Tax-Related Items. In addition, the Tax-Related Items may be satisfied, in whole or in part, by an arrangement whereby a certain number of shares of Stock issued upon settlement of the Restricted Stock Units are immediately sold and proceeds from such sale are remitted to the Company in an amount that would satisfy the Tax-Related Items. The Grantee's responsibility may exceed the amount actually withheld by the Company. The Grantee further acknowledges that the Company (a) makes no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Restricted Stock Units, including, without limitation, the grant, vesting, or settlement of the Restricted Stock Units, the subsequent sale of shares acquired pursuant to such issuance, and the receipt of any dividends; and (b) does not commit to and is under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate the Grantee's liability for Tax-Related Items or achieve any particular tax result. The Grantee shall not make any claim against the Company or its Board, officers or employees related to Tax-Related Items arising from the Restricted Stock Units or the Grantee's other compensation. Furthermore, if the Grantee has become subject to tax in more than one jurisdiction between the date of grant and the date of any relevant taxable or tax withholding event, as applicable, the Grantee acknowledges that the Company may be required to withhold or account for Tax-Related Items in more than one jurisdiction. Finally, the Grantee shall pay to the Company any amount of Tax-Related Items that the Company may be required to withhold or account for as a result of the Grantee's participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver the shares or the proceeds of the sale of shares if the Grantee fails to comply with his or her obligations in connection with the Tax-Related Items.

7. Section 409A of the Code. This Agreement shall be interpreted in such a manner that all provisions relating to the settlement of the Award are exempt from the requirements of Section 409A of the Code as "short-term deferrals" as described in Section 409A of the Code.

8. Service Terms and Acknowledgments. In accepting the Restricted Stock Units, the Grantee acknowledges, understands and agrees as follows:

- (a) the Plan is established voluntarily by the Company and it is discretionary in nature;

- (b) the grant of the Restricted Stock Units is voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;
- (c) all decisions with respect to future Restricted Stock Units or other grants, if any, will be at the sole discretion of the Company;
- (d) the Grantee is voluntarily participating in the Plan;
- (e) the Restricted Stock Units and any shares of Stock acquired under the Plan are not intended to replace any pension rights or compensation;
- (f) the Restricted Stock Units and any shares of Stock acquired under the Plan, and the income and value of same, are not part of normal or expected compensation for any purpose, including, without limitation, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, pension or retirement benefits or payments or welfare benefits or similar payments;
- (g) the future value of the shares of Stock underlying the Restricted Stock Units is unknown, indeterminable, and cannot be predicted with certainty;
- (i) if the Grantee acquires shares of Stock, the value of such shares may increase or decrease in value;
- (j) for purposes of the Restricted Stock Units, the Grantee's right to vest in the Restricted Stock Units under the Plan, if any, will terminate as of the date of the Grantee ceases to be a service provider and will not be extended by any notice period (e.g., the Grantee's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where the Grantee is employed or providing services or the terms of the Grantee's employment or service agreement, if any); the Administrator shall have the exclusive discretion to determine the date of the Grantee ceases to be a service provider for purposes of the Restricted Stock Units (including whether the Grantee may still be considered to be providing services while on a leave of absence);
- (k) unless otherwise provided in the Plan or by the Company in its discretion, the Restricted Stock Units and the benefits evidenced by this Agreement do not create any entitlement to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; and
- (l) the Grantee acknowledges and agrees that neither the Company, nor any Subsidiary shall be liable for any foreign exchange rate fluctuation between the Grantee's local currency and the U.S. Dollar that may affect the value of the Restricted Stock Units or of any amounts due to the Grantee pursuant to the vesting of the Restricted Stock Units or the subsequent sale of any shares of Stock.

9. Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter.

10. Data Privacy Consent. *The Grantee hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of the Grantee's personal data as described in this Agreement and any other Restricted Stock Units grant materials ("Data") by and among, as applicable, Company, and Subsidiary for the exclusive purpose of implementing, administering and managing the Grantee's participation in the Plan. The Grantee understands that the Company may hold certain personal information about the Grantee, including, but not limited to, the Grantee's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Company, details of all Restricted Stock Units or any other entitlement to shares awarded, canceled, vested, unvested or outstanding in the Grantee's favor, for the exclusive purpose of implementing, administering and managing the Plan. The Grantee understands that Data will be transferred to a stock plan service provider as may be selected by the Company in the future, which may be assisting the Company with the implementation, administration and management of the Plan. The Grantee understands that the recipients of the Data may be located in the U.S. or elsewhere, and that the recipient's country (e.g., the U.S.) may have different including less stringent data privacy laws and protections than the Grantee's country. The Grantee understands that if he or she resides outside the U.S., he or she may request a list with the names and addresses of any potential recipients of the Data by contacting his or her local human resources representative. The Grantee authorizes the Company, its Subsidiaries and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purposes of implementing, administering and managing the Grantee's participation in the Plan. The Grantee understands that Data will be held only as long as is necessary to implement, administer and manage the Grantee's participation in the Plan. The Grantee understands that if he or she resides outside the U.S., he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. Further, the Grantee understands that he or she is providing the consents herein on a purely voluntary basis. If the Grantee does not consent, or if the Grantee later seeks to revoke his or her consent, his or her employment status or service and career with the Company will not be adversely affected; the only consequence of refusing or withdrawing the Grantee's consent is that the Company would not be able to grant the Grantee Restricted Stock Units or other equity awards or administer or maintain such awards. Therefore, the Grantee understands that refusing or withdrawing his or her consent may affect the Grantee's ability to participate in the Plan. For more information on the consequences of the Grantee's refusal to consent or withdrawal of consent, the Grantee understands that he or she may contact his or her local human resources representative.*

11. Country-Specific Appendix. Notwithstanding any provisions in this Agreement, the Restricted Stock Units shall be subject to any special terms and conditions and notifications set forth in any Appendix to this Agreement for the Grantee's country. Moreover, if the Grantee relocates to one of the countries included in the Appendix, the special terms and conditions and notifications for such country will apply to the Grantee, to the extent the Company determines that the application of such terms and conditions and notifications is necessary or advisable for legal or administrative reasons. This Agreement and any Appendices thereto are referred to jointly as this Agreement.

12. Foreign Exchange. The Grantee acknowledges and agrees that the Grantee may be responsible for reporting inbound transactions or fund transfers that exceed a certain amount. The Grantee is advised to seek appropriate professional advice as to how the exchange control regulations apply to the Restricted Stock Units and the Grantee's specific situation and understands that the relevant laws and regulations can change frequently and occasionally on a retroactive basis.

13. Translation. To the extent that the Grantee has been provided with a translation of this Agreement, the English language version of this Agreement shall prevail in case of any discrepancies or ambiguities due to translation or inconsistencies or conflicts between different language versions of this Agreement.

14. Notices. Notices hereunder shall be mailed or delivered to the Company at its principal place of business and shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

15. Electronic Delivery of Documents. The Grantee agrees that the Company may deliver electronically or by email all documents relating to the Plan or Restricted Stock Units (including, without limitation, a copy of the Plan) and all other documents that the Company is required to deliver to its security holders. The Grantee also agrees that the Company may deliver these documents by posting them on a website maintained by the Company or by a third party under contract with the Company. If the Company posts these documents on a website, it shall notify the Grantee by email. The Grantee acknowledges that he or she may receive from the Company a paper copy of any documents delivered or posted electronically at no cost to the Grantee by contacting the Company by telephone or in writing. The Grantee further acknowledges that the Grantee will be provided with a paper copy of any documents if the attempted electronic delivery of such documents fails. Similarly, the Grantee understands that the Grantee must provide the Company or any designated third party administrator with a paper copy of any documents if the attempted electronic delivery of such documents fails. The Grantee may revoke his or her consent to the electronic delivery of documents or may change the electronic mail address to which such documents are to be delivered (if Grantee has provided an electronic mail address) at any time by notifying the Company of such revoked consent or revised e-mail address by telephone, postal service or electronic mail. Finally, the Grantee understands that he or she is not required to consent to electronic delivery of documents described in this Section 15.

**Twilio Inc.**

By: \_\_\_\_\_  
Title:

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned. Electronic acceptance of this Agreement pursuant to the Company's instructions to the Grantee (including through an online acceptance process) is acceptable.



Dated: \_\_\_\_\_

\_\_\_\_\_  
Grantee's Signature

Grantee's name and address:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TWILIO INC.

2016 STOCK OPTION AND INCENTIVE PLAN  
RESTRICTED STOCK UNIT AWARD AGREEMENT  
COUNTRY APPENDIX — EMPLOYEE

***Terms and Conditions***

This Appendix includes additional terms and conditions that govern the award of Restricted Stock Units under the Plan if the Grantee works or resides in one of the countries listed below. Certain capitalized terms used but not defined herein shall have the meanings set forth in the Plan and/or this Agreement to which this country-specific Appendix is attached.

If the Grantee is a citizen or resident of a country (or is considered such for purposes of the local governing law) other than the one in which he or she is currently working, or if the Grantee relocates to another country after the date of grant, or if the Grantee's employment status changes from Employee, the terms and conditions and the information contained herein may not be applicable in the same manner to the Grantee. The Company will, at its sole discretion, determine the extent to which the terms and conditions contained herein will be applicable to the Grantee under these circumstances.

***Notifications***

This Appendix also includes information regarding exchange controls and certain other issues of which the Grantee should be aware with respect to the Grantee's participation in the Plan. The information is based on the securities, exchange control and other laws in effect in the respective countries as of October 2015. Such laws are often complex and change frequently. As a result, the Company strongly recommends that the Grantee not rely on the information noted herein as the only source of information relating to the consequences of the Grantee's participation in the Plan because the information may be out of date at the time the Grantee exercises the Restricted Stock Units, acquires shares or sells shares acquired under the Plan.

In addition, the information is general in nature and may not apply to the Grantee's particular situation, and the Company is not in a position to assure the Grantee of any particular result. Accordingly, the Grantee is advised to seek appropriate professional advice as to how the relevant laws in the Grantee's country may apply to the Grantee's situation.

**COLOMBIA**

***Notifications***

Foreign Exchange / Ownership Information. Prior approval from a government authority is not required to purchase and hold foreign securities or to receive an equity award. However, if the purchase of foreign securities is made through a foreign exchange intermediary (i.e., with funds located in Colombia that are then transferred abroad), a Form No. 4 will be required in order to register the investment with the Colombian Central Bank. The purchase of foreign securities may also be completed with funds you already hold abroad. In this scenario, no investment registration is required unless the value of foreign investments, including the value of any equity awards, as of December 31st of any given year, equals or exceeds US \$500,000. In such case, the investments must be registered with the Colombian Central Bank by June 30th of the following year by filing a Form No. 11.

## **ESTONIA**

There are no country specific provisions.

## **GERMANY**

### ***Notifications***

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank. If you use a German bank to transfer a cross-border payment in excess of €12,500 in connection with the sale of shares acquired under the Plan, the bank will make the report for you. In addition, you must report any receivables, payables, or debts in foreign currency exceeding an amount of €5,000,000 on a monthly basis.

Securities Disclaimer. The grant of the Restricted Stock Units is exempt from the requirement to publish a prospectus under the EU Prospectus Directive as implemented in Germany.

## **HONG KONG**

### ***Notifications***

Securities Law Notice. The Restricted Stock Units and shares issued upon vesting do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Company or its Subsidiaries and affiliates. The Agreement, including this Appendix, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a “prospectus” for a public offering of securities under the applicable securities legislation in Hong Kong and have not been registered with or reviewed or authorized by any regulatory authority in Hong Kong, including the Securities and Futures Commission. The Restricted Stock Units, the Agreement, the Plan, and any other related materials are intended only for the personal use of each eligible employee of the Company or any Subsidiary or affiliate and not for distribution to any other persons. If you are in any questions about any of the contents of the Agreement, including this Appendix, or the Plan or other related materials, you should obtain independent professional advice.

Sale of Shares. Shares of stock issued at vesting of the Restricted Stock Units are accepted as a personal investment. In the event your Restricted Stock Units vest and shares of Stock are issued to you within six months of the Date of Grant, you agree that the Stock may not be offered to the public or otherwise disposed of prior to the six-month anniversary of the Date of Grant.

## **IRELAND**

### ***Notifications***

Director Reporting. If you are a director or shadow director of the Company or related company, you may be subject to special reporting requirements with regard to the acquisition of shares or rights over shares. Please contact your personal legal advisor for further details if you are a director or shadow director.

Securities Disclaimer. The grant of the Restricted Stock Units is exempt from the requirement to publish a prospectus under the EU Prospectus Directive as implemented in Ireland.

## SINGAPORE

### *Notifications*

Securities Law Information. The Restricted Stock Units are being granted to the Grantee pursuant to the “Qualifying Person” exemption under section 273(1)(f) of the Singapore Securities and Futures Act (Chapter 289, 2006 Ed.) (“SFA”) and is not made to the Grantee with a view to the shares being subsequently offered for sale to any other party. The Plan has not been lodged or registered as a prospectus with the Monetary Authority of Singapore. The Grantee should note that the Restricted Stock Units are subject to section 257 of the SFA, and the Grantee will not be able to make any subsequent sale in Singapore, or any offer of such subsequent sale of the shares underlying the Restricted Stock Units, unless such sale or offer in Singapore is made pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Director Notification Obligation. If the Grantee is a director, associate director or shadow director of a Subsidiary of the Company in Singapore, the Grantee is subject to certain notification requirements under the Singapore Companies Act. Among these requirements is an obligation to notify the Singaporean Subsidiary in writing when the Grantee receives an interest (*e.g.*, Restricted Stock Units, shares) in the Company or any Subsidiary. In addition, the Grantee must notify the Singapore Subsidiary when the Grantee sells shares of the Company or any Subsidiary (including when the Grantee sell shares acquired through the vesting of the Grantee’s Restricted Stock Units). These notifications must be made within two business days of acquiring or disposing of any interest in the Company or any Subsidiary. In addition, a notification must be made of the Grantee’s interests in the Company or any Subsidiary within two business days of becoming a director.

Insider-Trading Notification. The Grantee should be aware of the Singapore insider-trading rules, which may impact his or her acquisition or disposal of Restricted Stock Units or rights to shares under the Plan. Under the Singapore insider-trading rules, the Grantee is prohibited from selling shares when he or she possesses information, not generally available, which the Grantee knows or should know will have a material effect on the price of the shares once such information is generally available

## UNITED KINGDOM

### *Terms and Conditions*

#### Responsibility for Taxes.

If payment or withholding of the income tax due is not made within 90 days of the end of the U.K. tax year (April 6 - April 5) or such other period specified in Section 222(1)(c) of the U.K. Income Tax (Earnings and Pensions) Act 2003 (the “Due Date”), the amount of any uncollected income tax will constitute a loan owed by the Grantee to Company or the employer effective on the Due Date. The Grantee agrees that the loan will bear interest at the then-current Official Rate of Her Majesty’s Revenue and Customs (“HMRC”), it will be immediately due and repayable, and the Company or the Employer may recover it at any time thereafter by any of the means referred to in Section II (9) of the Agreement.

Notwithstanding the foregoing, if the Grantee is a director or executive officer of the Company (within the meaning of Section 13(k) of the Exchange Act), he or she will not be eligible for such a loan to cover

the income tax due as described above. In the event that the Grantee is such a director or executive officer and the income tax is not collected from or paid by the Grantee by the Due Date, the amount of any uncollected income tax may constitute a benefit to the Grantee on which additional income tax and national insurance contributions may be payable. The Grantee is responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime. The Grantee is responsible for reimbursing the Company or the employer (as applicable) for the value of any employee national insurance contribution due on this additional benefit and acknowledges that the Company or the Employer may recover such amount from him or her by any of the means referred to in Section II(4) of the Agreement.

HMRC National Insurance Contributions. The following supplements Section 6 of the Agreement: Grantee agrees that:

- (a) Tax-Related Items shall include any secondary class 1 (employer) National Insurance Contributions that:
  - (i) any employer (or former employer) of the Grantee is liable to pay (or reasonably believes it is liable to pay); and
  - (ii) may be lawfully recovered from the Grantee; and
- (b) if required to do so by the Company (at any time when the relevant election can be made) the Grantee shall:
  - (i) make a joint election (with the employer or former employer) in the form provided by the Company to transfer to the Grantee the whole or any part of the employer's liability that falls within Section 6 of the Agreement; and
  - (ii) enter into arrangements required by HM Revenue & Customs (or any other tax authority) to secure the payment of the transferred liability.

Restricted Securities Elections. If required to do so by the Company (at any time when the relevant election can be made), the Grantee shall enter into a joint election (with the appropriate employer) under section 431(1) or section 431(2) of Income Tax (Earnings & Pensions) Act 2003 in respect of:

- (a) any shares acquired (or to be acquired) on vesting of the Restricted Stock Units;
- (b) any securities acquired (or to be acquired) as a result of any surrender of the Restricted Stock Units; and

any securities acquired (or to be acquired) as a result of holding either shares acquired on vesting of the Restricted Stock Units or securities specified in above or in this notification.

Securities Disclaimer. Neither this Agreement nor Appendix is an approved prospectus for the purposes of section 85(1) of the Financial Services and Markets Act 2000 ("FSMA") and no offer of transferable securities to the public (for the purposes of section 102B of FSMA) is being made in connection with the Plan. The Plan and the Restricted Stock Units are granted under this Agreement in the UK exclusively to bona fide employees and former employees and any other UK Subsidiary.

**List of Significant Subsidiaries of Twilio Inc.**

Teravoz Telecom Telecomunicacoes Ltda. (Brazil)

Twilio Australia Pty Ltd (Australia)

Twilio Berlin GmbH (Germany)

Twilio Colombia S.A.S. (Colombia)

Twilio Czechia (Czechia)

Twilio Estonia OÜ (Estonia)

Twilio France SARL (France)

Twilio Germany GmbH (Germany)

Twilio Hong Kong Limited (Hong Kong)

Twilio IP Holding Limited (Ireland)

Twilio Ireland Limited (Ireland)

Twilio Japan GK (Japan)

Twilio Netherland BV (The Netherlands)

Twilio Singapore Pte. Ltd. (Singapore)

Twilio Spain, S.L.(Spain)

Twilio Sweden AB (Sweden)

Twilio Technology India Private Limited (India)

Twilio UK Limited (England and Wales)

**Consent of Independent Registered Public Accounting Firm**

The Board of Directors  
Twilio Inc.:

We consent to the incorporation by reference in the registration statement (No. 333-212191, 333-224812 and 333-229580) on Form S-8 of Twilio Inc. of our report dated March 2, 2020, with respect to the consolidated balance sheets of Twilio Inc. as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes, which report appears in the December 31, 2019 annual report on Form 10-K of Twilio Inc.

The Company acquired SendGrid, Inc. (SendGrid) during fiscal 2019, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, SendGrid's internal control over financial reporting associated with \$271.4 million, or 5%, of the Company's total assets and \$177.1 million, or 16%, of revenue included in the consolidated financial statements as of and for the year ended December 31, 2019. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of SendGrid.

Our report on the consolidated financial statements refers to the adoption of Financial Accounting Standards Board's Accounting Standards Codification (ASC) Topic 842, Leases, as of January 1, 2019.

/s/ KPMG LLP

Santa Clara, California  
March 2, 2020

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF  
THE SECURITIES EXCHANGE ACT OF 1934,  
AS ADOPTED PURSUANT TO SECTION 302 OF  
THE SARBANES-OXLEY ACT OF 2002**

I, Jeffrey Lawson, certify that:

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

Date: March 2, 2020

/s/ JEFFREY LAWSON

Jeffrey Lawson

*Chief Executive Officer (Principal Executive Officer)*



**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF  
THE SECURITIES EXCHANGE ACT OF 1934,  
AS ADOPTED PURSUANT TO SECTION 302 OF  
THE SARBANES-OXLEY ACT OF 2002**

I, Khozema Shipchandler, certify that:

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

Date: March 2, 2020

/s/ KHOZEMA SHIPCHANDLER

Khozema Shipchandler

*Chief Financial Officer (Principal Accounting and Financial Officer)*

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER  
PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the “Exchange Act”) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Jeffrey Lawson, Chief Executive Officer of Twilio Inc. (the “Company”), and Khozema Shipchandler, Chief Financial Officer of the Company, each hereby certifies that, to the best of his knowledge:

1. The Company’s Annual Report on Form 10-K for the year ended December 31, 2019, to which this Certification is attached as Exhibit 32.1 (the “Periodic Report”), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and
2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 2, 2020

/s/ JEFFREY LAWSON

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Jeffrey Lawson

*Chief Executive Officer (Principal Executive Officer)*

/s/ KHOZEMA SHIPCHANDLER

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Khozema Shipchandler

*Chief Financial Officer (Principal Accounting and Financial Officer)*