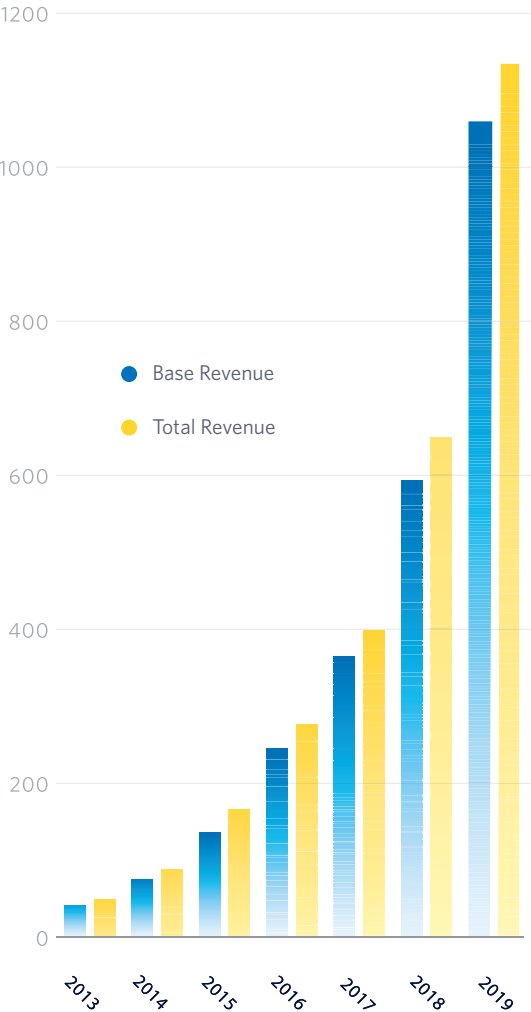
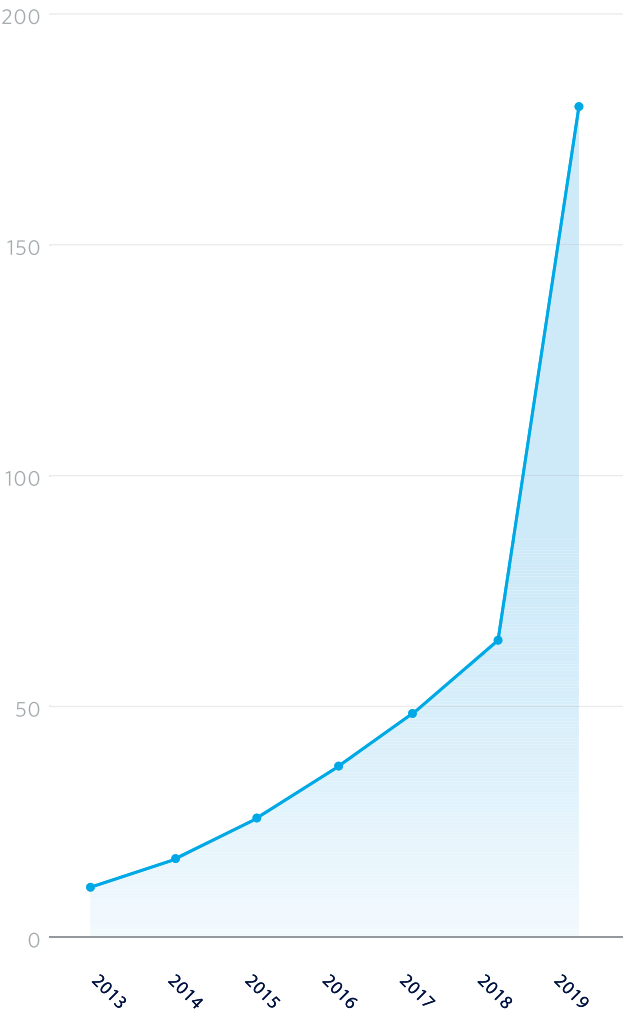


Key Metrics

Revenue (\$M)¹



Active Customer Accounts (K)²



Dollar-Based Net Expansion Rate³



1 Represents revenue for the twelve months ended December 31.
 2 Represents Active Customer Accounts as of December 31. Active Customer Accounts include the contribution from our SendGrid acquisition, which closed on February 1, 2019. Effective December 31, 2019, we round down the number to the nearest thousand.
 3 Represents data for the twelve months ended December 31. Data does not include the impact of our SendGrid acquisition, which closed on February 1, 2019. For reporting periods commencing in 2020, Twilio will no longer disclose Base Revenue as an operating metric and Dollar-Based Net Expansion Rate ("DBNE") will be calculated using Total Revenue.
 Please refer to Twilio's Annual Report on Form 10-K for details on the methodology for calculating Base Revenue, Total Revenue, Active Customer Accounts and DBNE.

Dear Fellow Stockholders,

In normal times, it's common to start a call or a meeting with "How ya' doing?" "Fine," the other person says, almost instinctively. But now, I find after the automatic pleasantries are exchanged, comes the real question: "No *really*, how are you doing?" That *real* question, I find ourselves asking each other so often now, is an acknowledgement that in fact, nothing is actually "fine." And it's an invitation to a *real* conversation about how we're all faring personally in these scary times. But, it's also a reassurance - we will get through this if we support each other and understand that everybody is struggling in some way right now. Yet, as a technology company, we count our blessings, appreciating the relative ease with which our employees can work from home and the applicability of our business to solving some of the great challenges of our time. We acknowledge our responsibility to the communities around us and commit to doing our part in providing for collective recovery - with our product, our people, and our money, both individually and as a company.

So with a spirit of awe and humility that these days bring, it's my honor to pen our fourth annual stockholder letter as a public company.

**** 2019 in Recap ****

In 2019, we...

- Crossed the \$1 billion revenue mark, reporting total revenue of \$1.13 billion for the full year 2019, up 75% year-over-year, which includes revenue from Twilio SendGrid.
- Completed the acquisition of SendGrid, the leading email API platform, and brought on over 400 Gridders to the Twilio team. This acquisition allows Twilio to provide a complete platform for virtually every form of digital customer engagement. In terms of scale, in the week leading up to and including Cyber Monday, Twilio processed over 22 billion emails for our customers without a single alert going off.
- Added nearly 115,000 active customer accounts, including those from our acquisition of SendGrid, ending the year with over 179,000 active customer accounts.
- More than doubled our number of 7-figure deals compared to 2018 - a great sign that we are becoming more strategic to our customers.
- Powered nearly 800 billion interactions across the platform on behalf of our customers. In fact, during 2019, we averaged more than 500 calls a second, over 127 million messages per day and 2 billion emails per day.
- Grew adoption of Twilio Flex, our contact center platform. 2019 was the first full year of Flex general availability, and companies of all sizes are continuing their digital transformation efforts and are looking to move their contact centers to the cloud to better drive omnichannel customer engagement. We on-boarded large global enterprises such as Allianz SE, CompuCom System - a subsidiary of Office Depot, and Southwest Airlines, as well as fast growing innovators such as TripActions and Hubspot on Twilio Flex. Our product team delivered more than 70 feature enhancements including outbound dialing, real time monitoring and integrations with Salesforce, Zendesk and other complementary applications.
- Added more than 1,400 new employees, bringing us to 2,905 global Twilions at year end, and meaningfully expanded our leadership bench with new leaders, including our Chief Product Officer, Chee Chew, Chief Customer Officer, Glenn Weinstein and the CEO of SendGrid, Sameer Dholakia. We added Jeffrey Immelt to Twilio's Board of Directors. Twilio was named one of America's Most JUST companies by Forbes and Just Capital. We also added six new offices, including international offices in Brazil, France and Japan.

- Hosted our largest ever SIGNAL conference with more than 3,200 customers, prospects, developers and business leaders in attendance. We launched new products including Twilio Conversations, Media Streams and Verified by Twilio and hosted our second annual Creator's Summit where more than 200 VIP customers joined us to discuss the future of customer engagement.
- Reached 100 million people through Twilio.org, on behalf of our social impact customers and gave \$7.5 million in grants to 53 organizations. Twilio.org also launched our Crisis Response initiative to enable communication efforts by nonprofits supporting individuals and communities in times of crisis.
- Launched WePledge, an internal employee impact program that encourages Twilions to commit 1% of their individual time and/or equity to the causes they care about. In turn, Twilio empowers employees with 20 hours of paid volunteer time, a \$500 matching gifts budget, and a way to donate their company equity with just a few clicks. Since the program's launch in September 2019, hundreds of Twilio's employees have already taken the pledge to commit 1%, resulting in the donation of hundreds of thousands of dollars and nearly 5,000 volunteer hours that support more than 450 charitable organizations. We're just getting started.
- Made progress towards our aspirational diversity and inclusion goals. At the end of 2019, according to self-reporting, women represented 33% of our workforce, underrepresented populations represented 21% of our U.S. workforce, and notably, underrepresented populations made up 29% of Twilio's U.S. leadership - up 7% year-over-year. For the second year in a row, a third party wage gap analysis showed a statistically insignificant pay gap. In the U.S., women earn 99% compared to men, and non-white Twilions earn 100% compared to white Twilions. Hatch, our software engineering apprenticeship program that targets underrepresented candidates, made huge strides. 100% of 2019 Hatch graduates were offered full-time positions at Twilio and 89% accepted their offers. Finally, Twilio was named one of the 2019 Best Workplaces for Diversity by Great Place to Work and FORTUNE, acknowledging the progress we've made, and our focus on creating an environment of inclusion and belonging for all employees going forward. I'm proud of the progress we've made, but recognize this is a long journey, and there's much work ahead to build a company that more accurately reflects the world around us.
- Completed a follow-on offering of Class A Common Stock, which resulted in net proceeds of \$979.0 million after deducting underwriting discounts and offering expenses.
- Made significant progress on our multi-year initiative to prevent and combat unwanted robocalls. Ending robocalls is going to take the combination of public policy, technological developments and industry cooperation. In 2019, Twilio joined the board of USTelecom, the board of the Alliance for Telecommunications Industry Solutions (ATIS), was appointed by the FCC to the North American Numbering Council and joined the anti-robocalling initiative launched by a coalition of 51 attorneys general representing all 50 states across the U.S. as well as Washington D.C.. Twilio also launched Verified by Twilio to help give consumers the confidence to answer the phone again by sharing who is calling them and why.
- Launched the Enterprise Hackathon program, where we go onsite with Fortune 500 customers and, in a single day, train their developers to rapidly prototype Twilio-powered solutions to business challenges, and then demo those solutions to their executives.

**** Built for This ****

At times, it feels like Twilio was built for the challenges brought about by the COVID-19 crisis. We provide three things the world has needed during this crisis: digital engagement, software agility, and cloud scale.

First, digital engagement. It may be obvious, but nearly overnight so many of the world's in-person workloads turned to digital. We had to get our groceries, educate our children, and even see the doctor, all while minimizing human contact. The answer, of course, is digital engagement. Technologies such as messaging, email, voice and video have enabled many parts of the economy to continue working while keeping its participants safe. Telehealth, distance learning, workforce management contact centers, mass alerts, and more have helped people stay safe, connected, educated, and working.

Second, software agility. This is not a time when people can pretend to have a normal roadmap or know all the answers. We're literally rebuilding society in real time to accommodate the impact of this virus on modern life. Nobody has time for long consulting projects and years-long roadmaps. Rather, moving quickly, building prototypes, and iterating as our needs evolve has been critical for nearly every kind of organization. That's the essence of agility, and Twilio has enabled organizations to re-imagine many of their communications workloads in days and weeks, not months and years.

And third, cloud scale. In the midst of a crisis, teams don't have the luxury of capacity planning, server racking, or buying seats - they need to build a solution, and have it scale up immediately to meet their needs. In many cases, such as telemedicine and distance learning, nobody even knows how much scale is needed, as there are no precedents to draw from. Therefore, the value of our transparent cloud scaling is more apparent than ever.

Digital engagement, software agility, and cloud scale are value propositions we've long built our company around. Now more than ever, I'm proud that we've been able to serve our customers and society with them.

**** Look to the Builders ****

We started Twilio with a belief in the power of builders. That no matter what the problem, builders could pick up their tools and solve the world's problems. In business, in government, in non-profits, and sometimes just for fun - builders see things that need fixing and get to work. That's why every press release says "We can't wait to see what you build." That's why our billboard says "Ask your Developer." That's why we publish our documentation, pricing, and prominently feature a "Get Started" button on our website - the call of the cursor is real. That blinking cursor beckons a developer to start building. Blink. Blink. Blink. The blinking cursor is raw potential - a computer ASKING, nay begging, to be used to make the world different and better in some small way today. That's what drew me and many developers to computers in the first place - I fondly remember starting with my Apple IIe. It's what gets us out of bed in the morning and keeps us up at all hours of the night. Answering that call. Fulfilling on the potential.

So when COVID-19 hit society, it's no surprise that the builders of the world got to work, doing what they do best - answering the call.

For example, the Consumer Digital Team at Mount Sinai Health System, led by Chief Product Officer David Kerwar, built a messaging solution allowing patients to chat live with clinicians, guiding potentially COVID-infected patients into care or remote monitoring to recover at home, virtualizing the healthcare system to enable care continuity for the patient who may not be able to access care in person. It's already experienced a 10x increase in volume. In one case, the live chat identified an elderly patient who needed immediate help and they were able to dispatch an ambulance in a matter of minutes. In another case, an infected patient in a group home was identified, which led to swift notification of the home and isolation of the patient to mitigate the spread of the virus in the facility. Twilio's ability to help onboard a patient via SMS and followed by a referral to a video visit has dramatically increased adoption and engagement with hundreds of consumers a day through this channel. A patient simply texts a six-digit short code to start using the platform and the ease of use and efficiency has resulted in expanded access to care for New Yorkers throughout this crisis.

Developers in governments, from cities to states to countries, began figuring out how to keep their population informed of rapidly changing advice, rules, and guidelines to keep people distanced, support them during isolation, and get them economic help. One example that comes to mind: developers at the City of Pittsburgh used Flex to upgrade, overnight, their 311 system to enable their agents to work from home - allowing their agents to remain safe while providing information to residents at a time when information is more important than ever.

Developers at non-profits on the front lines of healthcare, mental health, and poverty reduction started reconfiguring their programs for a new COVID reality, realizing their services would become even more important - sometimes growing 10x in scale practically overnight. In one example, I'm thinking about the team at United Way Worldwide. United Way Worldwide, one of the primary non-profit operators of 211 call and text services across the United States, estimates the network handles more than 11 million calls a year from people in need of information about social services. That was before the COVID-19 pandemic - their volumes in some markets grew nearly 10x as a result. Quickly, they developed a streamlined routing system with a front-end interactive voice response (IVR) using Twilio Studio and Autopilot. Now, to support agencies that need extra help, an artificial intelligence AI-assisted IVR bot helps answer commonly asked questions about COVID-19, and for callers who still require human help, the system routes the caller to a specialist sitting safely at home using Flex. They built this in a few days.

Or City Harvest, which provides New Yorkers with emergency food relief by delivering food they rescue to community food programs. Many of those programs rely on Plentiful, an SMS reservation system built in partnership by City Harvest and United Way for New York City on Twilio, to ensure food reaches the people who need it safely and efficiently. And now, with 62% more clients scheduling appointments and a 474% growth in volume of messages from partners, they are helping more people access food safely during this critical time.

And countless independent developers, working from home, reading the news, and itching to pitch in however they could, started answering the call. I'm reminded of the "PPE Coalition", a group of developers and technology companies, led by developers Joe Wilson and Eric Ries (author of the *Lean Startup*), who created an ad-hoc non-profit to connect supply of Personal Protective Equipment with hospitals on the front lines of the COVID-19 response. Their hotline, powered by Flex and staffed by volunteers, has routed millions of masks, gowns, respirators and more to the people who need it most.

And nearly every corporation had to respond to new realities. As social distancing took hold in the United States, protecting customers and employees from unnecessary in-person contact became a top priority for Comcast. Over the course of just a few weeks, developers at Comcast integrated Twilio Voice into their homegrown customer database, enabling technicians and customer care to contact customers for service requests remotely. Additionally, developers at Comcast recently initiated a pilot to incorporate Twilio Video into the same database, which could enable a customer to use the camera on their phone to show a Comcast technician their setup, and the technician can walk them through a self-diagnosis and repair without ever stepping foot in the home. Comcast designed, prototyped and built this capability over the course of less than a month. It has potential as a means of protecting customers and technicians during COVID-19, and also as a way to provide faster resolution to customers when their TV or Internet isn't functioning properly.

And developers at companies big and small got to work, reconfiguring the world for a work-from-home and a 100% e-commerce reality. Nearly every contact center needed to be reconfigured to support distributed workforces - nobody wants to be sitting in a cubicle during these times. As nearly every purchase moved to delivery at home or curbside, every retailer needed to scale their e-commerce initiatives, and enable their usually in-person, in-store salespeople to support customers electronically - while both are at home.

I heard from the leaders at QVC Italia, who realized the national lockdown in Italy would severely limit their ability to serve customers on the phone, because they had no way of enabling their customer

service team to work from home. Rolling out an on-premises call center solution could take years, and a cloud contact center generally takes 3-6 months on the low end. But the developers at QVC Italia were able to roll out this solution and onboard their agents in a week. They also added SMS and WhatsApp capabilities to accept inbound traffic on those channels, allowing QVC Italia to continue to serve their customers during the crisis and keep their team up and running.

So many stories of developers answering the call, I wish I could share them all.

As developers, we have the luxury of sitting at home (or nearly anywhere), and doing our work by typing magical code into our text editors. But so many people are on the front lines of this pandemic that deserve our thanks - the medical professionals, the truck drivers, the food delivery workers, the grocery store workers, the manufacturing workers, and everyone else who is playing a role in slowing the spread or providing us with the stocked shelves at our local stores. Thank you. The software developers of the world humbly have your back.

These are just a few of the ways in which we saw the world reconfigure before our eyes, and through it, Twilio has been privileged to have a front row seat, as we provide three things the world needs: digital engagement, software agility, and cloud scale. And it's been our privilege to serve the developers of the world, as they've served the medical system, their cities, states and countries, their non-profits - and their friends, family members, and communities. That's why we've been building this company for 12 years - to be able to serve the builders in ordinary times, and even more so in extraordinary times.

**** BPMs help us rise to the challenge ****

Last year in my stockholder letter, I spoke about the BPM system we use to plan our business. BPM stands for Big Picture, Priorities & Measures (ok, maybe it should be BPPM, but no.) BPMs allow us to express what matters on several time scales, and how we know if we're making the progress we want.

We use BPMs to plan our year and our quarters - as a company, as departments, and down to the team level. But we don't just use BPMs for regular planning cycles. We also use them any time that we need to draw clarity from ambiguity. And as it turns out, it was the perfect tool to guide us as the COVID-19 crisis evolved. When it became apparent that 2020 would not be "business as usual," as an executive team, we wrote a BPM to guide our decisions and our actions through the crisis. As usual, there was discussion and debate about the words and the order of the priorities, except for one thing: We all agreed that our people were the number one priority, and that caring for the now 3,000+ Twilions, and growing our culture during this period of time would be critical. I wanted to share our COVID-19 Response BPM with you, our stockholders, because I hope it's useful to see how we operate and perhaps this document may be useful for others in this or other periods of uncertainty. (Note: I've omitted the measures.)

Twilio COVID-19 Response Big Picture:

Care for our team's mental and physical health. Weather the crisis as a trusted advisor to employees, customers and our communities in their time of need. Invest and emerge from the crisis with our leadership strengthened as an employer, community member, and trusted provider in the market.

Priorities:

1. **Employee trust and welfare.** Ensure we communicate well with employees, both in our outreach, and also in listening. Ensure we first and foremost are looking out for the personal welfare of our employees, and make them feel heard.
2. **Customer success through the crisis.** Serve our customers during this crisis to help ensure their success, contributing to their ability to survive and thrive, thus building loyalty.
3. **Recover stronger.** Leverage Twilio's strong balance sheet to grow the business in an environment where others may be fearful.
4. **Capture emerging opportunities.** Reach new customers and new use-cases in a trusted and scalable way, approach emerging needs for Twilio with the required urgency and build long term relationships.
5. **Community.** Care for our communities during this crisis, showing up as a force of compassion and good.

**** Onward ****

As I noted before, Twilio was built for the challenges we're facing with this crisis, but not only our products - our people and our culture were ready to serve when this crisis started. I've seen so many instances of Twilions moving mountains to serve our customers during this time of need. I'm thankful that five years ago, we took the 1% Pledge with the support of our investors and our board of directors, committing 1% of our equity to sustainably fund Twilio.org, enabling us to help even more organizations in this time of need. And, of course, I've also seen so many instances of Twilions supporting each other through this crisis. And it's also you, our stockholders, that I'm proud to be working with through this crisis. I've had the opportunity to chat with many stockholders in the past year. Especially during the COVID-19 pandemic, I'm appreciative of the investor base we've assembled and for your support and encouragement.

So with a spirit of investing in our collective future, I say: "Onward."

Sincerely,

Jeff Lawson
CEO, Co-founder and Chairman
Twilio Inc.



TWILIO INC.
101 SPEAR STREET, FIRST FLOOR
SAN FRANCISCO, CALIFORNIA 94105
NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To Be Held at 9:00 a.m. Pacific Time on Wednesday, June 3, 2020

Dear Stockholders of Twilio Inc.:

We cordially invite you to attend the 2020 annual meeting of stockholders (the “**Annual Meeting**”) of Twilio Inc., a Delaware corporation, which will be held virtually on **Wednesday, June 3, 2020 at 9:00 a.m. Pacific Time via live audio webcast on the Internet at www.virtualshareholdermeeting.com/TWLO2020**, for the following purposes, as more fully described in the accompanying proxy statement:

1. To elect three Class I directors to serve until the 2023 annual meeting of stockholders and until their successors are duly elected and qualified;
2. To ratify the appointment of KPMG LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2020;
3. To conduct a non-binding advisory vote to approve the compensation of our named executive officers; and
4. To transact such other business as may properly come before the Annual Meeting or any adjournments or postponements thereof.

Due to recent developments with the coronavirus (COVID-19), the public health and travel concerns our stockholders may have, and the protocols that federal, state and local governments may impose, our Board of Directors has determined to hold a live audio webcast in lieu of an in-person meeting in order to support the health and well-being of our employees, stockholders, directors and community. You will be able to vote and submit your questions during the meeting at www.virtualshareholdermeeting.com/TWLO2020. The health and safety of our employees, stockholders, directors and community is paramount and we believe that holding a virtual meeting will enable greater stockholder attendance and help accommodate participants who may be unable or unwilling to travel to an in-person meeting as a result of measures implemented in response to the coronavirus outbreak. As always, we encourage you to vote your shares prior to the Annual Meeting either by telephone, Internet or by proxy card to help make this meeting format as efficient as possible.

Our board of directors has fixed the close of business on April 6, 2020 as the record date for the Annual Meeting. Only stockholders of record on April 6, 2020 are entitled to notice of and to vote at the Annual Meeting. Further information regarding voting rights and the matters to be voted upon is presented in the accompanying proxy statement.

On or about April 22, 2020, we expect to mail to our stockholders a Notice of Internet Availability of Proxy Materials (the “**Notice**”) containing instructions on how to access our proxy statement for our 2020 Annual Meeting of Stockholders (the “**Proxy Statement**”) and our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 (the “**Annual Report**”). The Proxy Statement and the Annual Report can be accessed directly at the following Internet address: <http://materials.proxyvote.com/90138F>. All you have to do is enter the control number located on your proxy card.

YOUR VOTE IS IMPORTANT. Whether or not you plan to attend the Annual Meeting, we urge you to submit your vote via the Internet, telephone or mail as soon as possible to ensure that your shares are represented. For additional instructions on voting by telephone or the Internet, please refer to your proxy card. Returning the proxy does not deprive you of your right to attend the Annual Meeting and to vote your shares at the Annual Meeting.

We appreciate your continued support of Twilio.

By order of the Board of Directors,

A handwritten signature in black ink, appearing to read "Jeff Lawson", written over a horizontal line.

Jeff Lawson
Co-Founder, Chief Executive Officer and Chairperson of the Board
San Francisco, California
April 22, 2020

Table of Contents

PROCEDURAL MATTERS	1
BOARD OF DIRECTORS AND CORPORATE GOVERNANCE	7
PROPOSAL NO. 1—ELECTION OF DIRECTORS	21
PROPOSAL NO. 2—RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	22
PROPOSAL NO. 3—NON-BINDING ADVISORY VOTE TO APPROVE THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS	24
REPORT OF THE AUDIT COMMITTEE	25
EXECUTIVE OFFICERS	26
EXECUTIVE COMPENSATION	28
COMPENSATION DISCUSSION AND ANALYSIS	28
COMPENSATION COMMITTEE REPORT	53
EQUITY COMPENSATION PLAN INFORMATION	54
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	56
CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS	60
OTHER MATTERS	63
APPENDIX A	A-1

TWILIO INC.

PROXY STATEMENT FOR 2020 ANNUAL MEETING OF STOCKHOLDERS

PROCEDURAL MATTERS

This proxy statement and the enclosed form of proxy are furnished in connection with the solicitation of proxies by our board of directors for use at the 2020 annual meeting of stockholders of Twilio Inc., a Delaware corporation (the “**Company**”), and any postponements, adjournments or continuations thereof (the “**Annual Meeting**”). The Annual Meeting will be held virtually on **Wednesday, June 3, 2020 at 9:00 a.m. Pacific Time via live audio webcast**. You will be able to attend the virtual Annual Meeting, vote your shares electronically and submit your questions during the live audio webcast of the meeting by visiting www.virtualshareholdermeeting.com/TWLO2020 and entering your sixteen-digit control number located on your proxy card. The Notice of Internet Availability of Proxy Materials (the “**Notice**”) containing instructions on how to access this proxy statement and our annual report is first being mailed on or about April 22, 2019 to all stockholders entitled to vote at the Annual Meeting.

The information provided in the “question and answer” format below is for your convenience only and is merely a summary of the information contained in this proxy statement. You should read this entire proxy statement carefully. Information contained on, or that can be accessed through, our website is not intended to be incorporated by reference into this proxy statement and references to our website address in this proxy statement are inactive textual references only.

What matters am I voting on?

You will be voting on:

- the election of three Class I directors to serve until the 2023 annual meeting of stockholders and until their successors are duly elected and qualified;
- a proposal to ratify the appointment of KPMG LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2020;
- a proposal to conduct a non-binding advisory vote to approve the compensation of our named executive officers; and
- any other business as may properly come before the Annual Meeting.

How does the board of directors recommend I vote on these proposals?

Our board of directors recommends a vote:

- “**FOR**” the election of Richard Dalzell, Jeffrey Immelt and Erika Rottenberg as Class I directors;
- “**FOR**” the ratification of the appointment of KPMG LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2020; and
- “**FOR**” the approval, on a non-binding advisory basis, of the compensation of our named executive officers, as disclosed in this proxy statement.

Who is entitled to vote?

Holders of either class of our common stock as of the close of business on April 6, 2020, the record date for the Annual Meeting, may vote at the Annual Meeting. As of the record date, there were 128,613,795 shares of our Class A common stock outstanding and there were 11,356,940 shares of our Class B common stock outstanding. Our Class A common stock and Class B common stock will vote as a single class on all matters described in this proxy statement for which your vote is being solicited. Stockholders are not permitted to cumulate votes with respect to the election of directors. Each share of Class A common stock is entitled to one vote on each proposal and each share of Class B common stock is entitled to 10 votes on each proposal. Our Class A common stock and Class B common stock are collectively referred to in this proxy statement as our “common stock.”

Registered Stockholders. If shares of our common stock are registered directly in your name with our transfer agent, you are considered the stockholder of record with respect to those shares, and the Notice was provided to you directly by us. As the stockholder of record, you have the right to grant your voting proxy directly to the individuals listed on the proxy card or to vote online at the Annual Meeting. Throughout this proxy statement, we refer to these registered stockholders as “stockholders of record.”

Street Name Stockholders. If shares of our common stock are held on your behalf in a brokerage account or by a bank or other nominee, you are considered to be the beneficial owner of shares that are held in “street name,” and the Notice was forwarded to you by your broker or nominee, who is considered the stockholder of record with respect to those shares. As the beneficial owner, you have the right to direct your broker, bank or other nominee as to how to vote your shares. Beneficial owners are also invited to attend the Annual Meeting. However, since a beneficial owner is not the stockholder of record, you may not vote your shares of our common stock by Internet at the Annual Meeting unless you follow your broker’s procedures for obtaining a legal proxy. If you request a printed copy of our proxy materials by mail, your broker, bank or other nominee will provide a voting instruction form for you to use. Throughout this proxy statement, we refer to stockholders who hold their shares through a broker, bank or other nominee as “street name stockholders.”

How many votes are needed for approval of each proposal?

- *Proposal No. 1:* The election of directors requires a plurality of the voting power of the shares of our common stock present virtually or by proxy at the Annual Meeting and entitled to vote thereon to be approved. “Plurality” means that the nominees who receive the largest number of “For” votes cast are elected as directors. As a result, any shares not voted “For” a particular nominee (whether as a result of stockholder abstention or a broker non-vote) will not be counted in such nominee’s favor and will have no effect on the outcome of the election. You may vote “For” or “Withhold” on each of the nominees for election as a director.
- *Proposal No. 2:* The ratification of the appointment of KPMG LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2020 requires the affirmative vote of a majority of the voting power of the shares of our common stock present virtually or by proxy at the Annual Meeting and entitled to vote thereon to be approved. Abstentions are considered shares present and entitled to vote on this proposal, and thus, will have the same effect as a vote “Against” this proposal. Broker non-votes will have no effect on the outcome of this proposal.
- *Proposal No. 3:* A majority of the voting power of the shares of our common stock present virtually or by proxy at the Annual Meeting and entitled to vote thereon is required to approve the compensation of our named executive officers. Since this proposal is an advisory vote, the result will not be binding on our board of directors, our compensation committee, or the Company. The board of directors and our compensation committee will consider the outcome of the vote when determining the compensation of our named executive officers. Abstentions are considered shares present and entitled to vote on this proposal, and thus, will have the same effect as a vote “Against” this proposal. Broker non-votes will have no effect on the outcome of this proposal.

What is a quorum?

A quorum is the minimum number of shares required to be present at the Annual Meeting to properly hold an annual meeting of stockholders and conduct business under our amended and restated bylaws and Delaware law. The presence, virtually or by proxy, of the holders of a majority of the voting power of all issued and outstanding shares of our common stock entitled to vote at the Annual Meeting will constitute a quorum at the Annual Meeting. Abstentions, withheld votes and broker non-votes are counted as shares present and entitled to vote for purposes of determining a quorum.

How do I vote?

If you are a stockholder of record, there are four ways to vote:

- by Internet at www.proxyvote.com, 24 hours a day, seven days a week, until 11:59 p.m. Eastern Time on June 2, 2020 (have your Notice or proxy card in hand when you visit the website);
- by toll-free telephone at 1-800-690-6903, until 11:59 p.m. Eastern Time on June 2, 2020 (have your Notice or proxy card in hand when you call);
- by completing and mailing your proxy card (if you received printed proxy materials); or
- by Internet during the Annual Meeting. Instructions on how to attend and vote at the Annual Meeting are described at www.virtualshareholdermeeting.com/TWLO2020.

If you plan to attend the Annual Meeting, we recommend that you also vote by proxy so that your vote will be counted if you later decide not to attend the Annual Meeting.

If you are a street name stockholder, you will receive voting instructions from your broker, bank or other nominee. You must follow the voting instructions provided by your broker, bank or other nominee in order to direct your broker, bank or other nominee on how to vote your shares. Street name stockholders should generally be able to vote by returning a voting instruction form, or by telephone or on the Internet. However, the availability of telephone and Internet voting will depend on the voting process of your broker, bank or other nominee. As discussed above, if you are a street name stockholder, you may not vote your shares by Internet at the Annual Meeting unless you obtain a legal proxy from your broker, bank or other nominee.

Can I change my vote?

Yes. If you are a stockholder of record, you can change your vote or revoke your proxy any time before the Annual Meeting by:

- entering a new vote by Internet or by telephone;
- completing and returning a later-dated proxy card;
- notifying the Corporate Secretary of Twilio Inc., in writing, at 101 Spear Street, First Floor, San Francisco, California 94105; or
- attending and voting electronically at the Annual Meeting (although attendance at the Annual Meeting will not, by itself, revoke a proxy).

In light of shelter-in-place restrictions currently in place due to COVID-19, we encourage stockholders to reach out to us by e-mail at legalnotices@twilio.com instead of physical mail to help ensure prompt receipt of any communications related to voting.

If you are a street name stockholder, your broker, bank or other nominee can provide you with instructions on how to change your vote.

Why won't there be an in-person meeting this year?

Due to recent developments with the coronavirus (COVID-19), the public health and travel concerns our stockholders may have and the protocols that federal, state and local governments may impose, our

Board of Directors has determined to hold a virtual Annual Meeting via live audio webcast in lieu of an in-person meeting in order to support the health and well-being of our employees, stockholders, directors and community. You will be able to vote and submit your questions during the meeting at www.virtualshareholdermeeting.com/TWLO2020. The health and safety of our employees, stockholders, directors and community is paramount and we believe that holding a virtual meeting will enable greater stockholder attendance and help accommodate participants who may be unable or unwilling to travel to an in-person meeting as a result of measures implemented in response to the coronavirus outbreak.

What do I need to be able to attend the Annual Meeting online?

We will be hosting our Annual Meeting via live audio webcast only. If you are a stockholder as of the record date of April 6, 2020 and wish to virtually attend the Annual Meeting, you will need the 16-digit control number, which is located on your Notice of Internet Availability of Proxy Materials or on your proxy card (if you receive a printed copy of the proxy materials). Instructions on how to participate in the Annual Meeting are also posted online at www.proxyvote.com. The webcast will start at 9:00 a.m., Pacific Time on June 3, 2020. Stockholders may vote and ask questions while attending the Annual Meeting online.

Use of cameras and recording devices are prohibited while virtually attending the live audio webcast.

What is the effect of giving a proxy?

Proxies are solicited by and on behalf of our board of directors. Jeff Lawson, Khozema Shipchandler and Karyn Smith have been designated as proxy holders by our board of directors. When proxies are properly dated, executed and returned, the shares represented by such proxies will be voted at the Annual Meeting in accordance with the instructions of the stockholder. If no specific instructions are given, however, the shares will be voted in accordance with the recommendations of our board of directors as described above. If any matters not described in this proxy statement are properly presented at the Annual Meeting, the proxy holders will use their own judgment to determine how to vote the shares. If the Annual Meeting is adjourned, the proxy holders can vote the shares on the new Annual Meeting date as well, unless you have properly revoked your proxy instructions, as described above.

Why did I receive a Notice of Internet Availability of Proxy Materials instead of a full set of proxy materials?

In accordance with the rules of the Securities and Exchange Commission (“SEC”), we have elected to furnish our proxy materials, including this proxy statement and our annual report, primarily via the Internet. The Notice containing instructions on how to access our proxy materials is first being mailed on or about April 22, 2020 to all stockholders entitled to vote at the Annual Meeting. Stockholders may request to receive all future proxy materials in printed form by mail or electronically by e-mail by following the instructions contained in the Notice. We encourage stockholders to take advantage of the availability of our proxy materials on the Internet to help reduce the environmental impact and cost of our annual meetings of stockholders.

How are proxies solicited for the Annual Meeting?

Our board of directors is soliciting proxies for use at the Annual Meeting. All expenses associated with this solicitation will be borne by us. We will reimburse brokers or other nominees for reasonable expenses that they incur in sending our proxy materials to you if a broker, bank or other nominee holds shares of our common stock on your behalf. In addition, our directors and employees may also solicit proxies in person, by telephone or by other means of communication. Our directors and employees will not be paid any additional compensation for soliciting proxies.

How may my brokerage firm or other intermediary vote my shares if I fail to provide timely directions?

Brokerage firms and other intermediaries holding shares of our common stock in street name for their customers are generally required to vote such shares in the manner directed by their customers. In the absence of timely directions, your broker will have discretion to vote your shares on our sole “routine” matter: the proposal to ratify the appointment of KPMG LLP as our independent registered public accounting firm for our fiscal year ending December 31, 2020. Your broker will not have discretion to vote on any other proposals, which are “non-routine” matters, absent direction from you.

Where can I find the voting results of the Annual Meeting?

We will announce preliminary voting results at the Annual Meeting. We will also disclose voting results on a Current Report on Form 8-K that we will file with the SEC within four business days after the Annual Meeting. If final voting results are not available to us in time to file a Current Report on Form 8-K within four business days after the Annual Meeting, we will file a Current Report on Form 8-K to publish preliminary results and will provide the final results in an amendment to the Current Report on Form 8-K as soon as they become available.

I share an address with another stockholder, and we received only one paper copy of the proxy materials. How may I obtain an additional copy of the proxy materials?

We have adopted a procedure called “householding,” which the SEC has approved. Under this procedure, we deliver a single copy of the Notice and, if applicable, our proxy materials, to multiple stockholders who share the same address, unless we have received contrary instructions from one or more of such stockholders. This procedure reduces our printing costs, mailing costs and fees. Stockholders who participate in householding will continue to be able to access and receive separate proxy cards. Upon written or oral request, we will deliver promptly a separate copy of the Notice and, if applicable, our proxy materials, to any stockholder at a shared address to which we delivered a single copy of any of these materials. To receive a separate copy, or, if a stockholder is receiving multiple copies, to request that we only send a single copy of the Notice and, if applicable, our proxy materials, such stockholder may contact us at (415) 914-1444 or:

Twilio Inc.
Attention: Investor Relations
101 Spear Street, First Floor
San Francisco, CA 94105
ir@twilio.com

In light of shelter-in-place restrictions currently in place due to COVID-19, we encourage stockholders to contact us by telephone or e-mail instead of physical mail to help ensure timely receipt of any request for proxy materials.

Street name stockholders may contact their broker, bank or other nominee to request information about householding.

What is the deadline to propose actions for consideration at next year’s annual meeting of stockholders or to nominate individuals to serve as directors?*Stockholder Proposals*

Stockholders may present proper proposals for inclusion in our proxy statement and for consideration at next year’s annual meeting of stockholders by submitting their proposals in writing to our Corporate Secretary in a timely manner. For a stockholder proposal to be considered for inclusion in our proxy statement for the 2021 annual meeting of stockholders, our Corporate Secretary must receive the written proposal at our principal executive offices not later than December 23, 2020. In addition, stockholder

proposals must comply with the requirements of Rule 14a-8 regarding the inclusion of stockholder proposals in company-sponsored proxy materials. Stockholder proposals should be addressed to:

Twilio Inc.
Attention: Corporate Secretary
101 Spear Street, First Floor
San Francisco, California 94105

Our amended and restated bylaws also establish an advance notice procedure for stockholders who wish to present a proposal before an annual meeting of stockholders but do not intend for the proposal to be included in our proxy statement. Our amended and restated bylaws provide that the only business that may be conducted at an annual meeting of stockholders is business that is (i) specified in our proxy materials with respect to such annual meeting, (ii) otherwise properly brought before such annual meeting by or at the direction of our board of directors or (iii) properly brought before such meeting by a stockholder of record entitled to vote at such annual meeting who has delivered timely written notice to our Corporate Secretary, which notice must contain the information specified in our amended and restated bylaws. To be timely for the 2021 annual meeting of stockholders, our Corporate Secretary must receive the written notice at our principal executive offices:

- not earlier than the close of business on February 6, 2021; and
- not later than the close of business on March 8, 2021.

In the event that we hold the 2020 annual meeting of stockholders more than 30 days before or more than 60 days after the one-year anniversary of the Annual Meeting, then, for notice by the stockholder to be timely, it must be received by the secretary not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting, or the tenth day following the day on which public announcement of the date of such annual meeting is first made.

If a stockholder who has notified us of his, her or its intention to present a proposal at an annual meeting of stockholders does not appear to present his, her or its proposal at such annual meeting, we are not required to present the proposal for a vote at such annual meeting.

Nomination of Director Candidates

Holders of our common stock may propose director candidates for consideration by our nominating and corporate governance committee. Any such recommendations should include the nominee's name and qualifications for membership on our board of directors and should be directed to our General Counsel or legal department at the address set forth above. For additional information regarding stockholder recommendations for director candidates, see the section titled "Board of Directors and Corporate Governance—Stockholder Recommendations and Nominations to the Board of Directors."

In addition, our amended and restated bylaws permit stockholders to nominate directors for election at an annual meeting of stockholders. To nominate a director, the stockholder must provide the information required by our amended and restated bylaws. In addition, the stockholder must give timely notice to our Corporate Secretary in accordance with our amended and restated bylaws, which, in general, require that the notice be received by our Corporate Secretary within the time periods described above under the section titled "Stockholder Proposals" for stockholder proposals that are not intended to be included in a proxy statement.

Availability of Bylaws

A copy of our amended and restated bylaws is available via the SEC's website at <http://www.sec.gov>. You may also contact our Corporate Secretary at the address set forth above for a copy of the relevant bylaw provisions regarding the requirements for making stockholder proposals and nominating director candidates.

BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

Our business and affairs are managed under the direction of our board of directors. Our board of directors consists of eight directors, all of whom, other than Mr. Lawson, qualify as “independent” under the listing standards of The New York Stock Exchange (the “**NYSE Listing Standards**”). Our board of directors is divided into three staggered classes of directors. At each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the class whose term is then expiring.

The following table sets forth the names, ages as of March 31, 2020, and certain other information for each of the members of our board of directors with terms expiring at the Annual Meeting (who are also nominees for election as a director at the Annual Meeting) and for each of the continuing members of our board of directors:

	<u>Class</u>	<u>Age</u>	<u>Director Since</u>	<u>Current Term Expires</u>	<u>Expiration of Term for Which Nominated</u>	<u>Independent</u>	<u>Audit Committee</u>	<u>Compensation Committee</u>	<u>Nominating and Corporate Governance Committee</u>
<i>Directors with Terms Expiring at the Annual Meeting/Nominees</i>									
Richard Dalzell	I	63	2014	2020	2023	✓		✓	✓
Jeff Immelt	I	64	2019	2020	2023	✓		✓	
Erika Rottenberg	I	57	2016	2020	2023	✓	✓		✓
<i>Continuing Directors</i>									
Jeff Lawson	II	42	2008	2021	—				
Byron Deeter	II	45	2010	2021	—	✓			✓
Elena Donio	III	50	2016	2022	—	✓		✓	
Donna L. Dubinsky	III	64	2018	2022	—	✓	✓		
Jeffrey Epstein	II	63	2017	2021	—	✓	✓		

Nominees for Director

Richard Dalzell. Mr. Dalzell has served as a member of our board of directors since March 2014. From 1997 to 2007, Mr. Dalzell served in several roles at Amazon.com, Inc., an e-commerce and cloud computing company, including as Senior Vice President of Worldwide Architecture and Platform Software and Chief Information Officer. From 1990 to 1997, Mr. Dalzell served in several roles at Wal-Mart Stores, Inc., a discount retailer, including as Vice President of the Information Systems Division. Mr. Dalzell currently serves on the board of directors of Intuit Inc., a software company. Mr. Dalzell previously served on the board of directors of AOL Inc. Mr. Dalzell holds a B.S. in Engineering from the United States Military Academy at West Point.

Mr. Dalzell was selected to serve on our board of directors because of his experience as an executive and director of technology companies.

Jeffrey Immelt. Mr. Immelt has served as a member of our board of directors since June 2019. Mr. Immelt is a venture partner of New Enterprise Associates (“NEA”), a venture capital firm, which he joined in 2018. From 2001 to 2017, Mr. Immelt served as chairman and chief executive officer of General Electric, a U.S. based multinational conglomerate. Prior to being appointed chief executive officer of General Electric, Mr. Immelt held several global leadership roles at General Electric from 1982 to 2000 in the Plastics, Appliances and Healthcare businesses. He was named one of the “World’s Best CEO’s” by Barron’s three times and currently serves on the board of NEA portfolio companies Collective Health, Desktop Metal and Radiology Partners and is a member of The American Academy of Arts & Sciences. Mr. Immelt previously served as director of the Federal Reserve Bank of New York, a government-organized financial and monetary policy organization, as chairman of the U.S. Presidential Council on Jobs

and Competitiveness and as a trustee of Dartmouth College. He holds a B.A in applied mathematics from Dartmouth College and an M.B.A. from Harvard University.

Mr. Immelt was selected to serve on our board of directors because of his experience as a senior executive of technology companies and as a director and chairman of publicly-held companies.

Erika Rottenberg. Ms. Rottenberg has served as a member of our board of directors since June 2016. Ms. Rottenberg joined the Chan Zuckerberg Initiative in 2018 and serves as its Vice President and General Counsel. From 2008 to 2014, Ms. Rottenberg served as Vice President, General Counsel and Secretary at LinkedIn Corporation, a professional networking company. From 2004 to 2008, Ms. Rottenberg served as Senior Vice President, General Counsel and Secretary at SumTotal Systems, Inc., a talent management enterprise software company. From 1996 to 2002, Ms. Rottenberg served in several roles at Creative Labs, Inc., a computer peripheral and digital entertainment product company, including as Vice President, Strategic Development and General Counsel. From 1993 to 1996, Ms. Rottenberg served as an attorney at Cooley LLP, a law firm. Ms. Rottenberg served on the board of directors of Nasdaq-listed Wix.com Ltd., a cloud-based web development platform, from 2014 to April 2020, and currently serves on the boards of Girl Scouts USA and the Silicon Valley Law Foundation. Ms. Rottenberg holds a B.S. in Special and Elementary Education from the State University of New York at Geneseo and a J.D. from the University of California, Berkeley, Boalt Hall School of Law.

Ms. Rottenberg was selected to serve on our board of directors because of her experience as a senior executive of technology companies and as a director of publicly-held technology companies.

Continuing Directors

Jeff Lawson. See the section titled “Executive Officers” for Mr. Lawson’s biographical information.

Byron Deeter. Mr. Deeter has served as a member of our board of directors since November 2010. Since 2005, Mr. Deeter has served as a partner of Bessemer Venture Partners, a venture capital firm. From 2004 to 2005, Mr. Deeter served as a director at International Business Machines Corporation, or IBM, a technology and consulting company. From 2000 to 2004, Mr. Deeter served in several roles at Trigo Technologies, Inc., a product information management company, which was acquired by IBM in 2004, including co-founder, President, Chief Executive Officer and Vice President of Business Development. From 1998 to 2000, Mr. Deeter served as an Associate at TA Associates, a private equity firm. From 1996 to 1998, Mr. Deeter served as an Analyst at McKinsey & Company, a business consulting firm. Mr. Deeter previously served on the board of directors of Cornerstone OnDemand, Inc., a talent management software company and Instructure, Inc., an educational technology company. Mr. Deeter holds a B.A. in Political Economy from the University of California, Berkeley.

Mr. Deeter was selected to serve on our board of directors because of his experience in the venture capital industry and as a director of publicly-held and privately-held technology companies.

Elena Donio. Ms. Donio has served as a member of our board of directors since February 2016. Since 2016, Ms. Donio has served as Chief Executive Officer at Axiom Global, a leading provider of tech-enabled legal services. From 1998 to 2016, Ms. Donio served in several roles, including as President, Executive Vice President and General Manager of Worldwide Small and Mid-Sized Businesses, at Concur Technologies, Inc., a business travel and expense management software company, which was acquired by SAP SE in 2014. From 1995 to 1997, Ms. Donio served as Senior Manager at Deloitte Consulting LLP, a professional services firm. From 1992 to 1995, Ms. Donio served as Senior Consultant at Andersen Consulting LLP, a business consulting firm. Ms. Donio holds a B.A. in Economics from the University of California, San Diego.

Ms. Donio was selected to serve on our board of directors because of her experience as a senior executive of a technology company and her industry experience.

Donna L. Dubinsky. Ms. Dubinsky has served as a member of our board of directors since December 2018. Ms. Dubinsky was a co-founder of Numenta, Inc., a machine intelligence company, and has served as its Chief Executive Officer since 2005. Ms. Dubinsky also co-founded Handspring, a maker of Palm OS-based Visor- and Treo-branded personal digital assistants, and served as President and Chief Executive Officer of Handspring from 1998 to 2003, and as Acting Chief Financial Officer from 2002 to 2003. From 1992 to 1998, Ms. Dubinsky served as President and Chief Executive Officer of Palm Computing, Inc., one of the first companies to develop and design handheld computers and smartphones. From 1982 to 1991, Ms. Dubinsky served in a multitude of sales, sales support, and logistics functions at both Apple Inc. and Claris, an Apple software subsidiary. She currently serves on the boards of Numenta and Stanford Health Care in Palo Alto, CA. Ms. Dubinsky previously served on the board of Intuit Inc. and Yale University, including two years as Senior Fellow. Ms. Dubinsky holds a B.A. from Yale University, and an M.B.A. from Harvard Business School.

Ms. Dubinsky was selected to serve on our board of directors because of her experience as an entrepreneur and her industry experience.

Jeffrey Epstein. Mr. Epstein has served as a member of our board of directors since July 2017. Mr. Epstein is an Operating Partner at Bessemer Venture Partners, a venture capital firm, which he joined in November 2011 and has served as Co-Chief Executive Officer and Chief Financial Officer of Apex Technology Acquisition Corp., a Nasdaq-listed blank check company, since April 2019. From September 2008 to April 2011, Mr. Epstein was Executive Vice President and Chief Financial Officer of Oracle Corporation, an enterprise software company. Prior to joining Oracle in 2008, Mr. Epstein served as chief financial officer of several public and private companies, including DoubleClick, an Internet advertising company, which was acquired by Google, Inc., King World Productions, a U.S production company and syndicator of television programming, which was acquired by CBS, and Nielsen's Media Measurement and Information Group, an information, data and measurement company. Mr. Epstein previously served as a director of Booking Holdings (formerly The Priceline Group, Inc.), a leading provider of online travel, and as a member of its Audit Committee and Compensation Committee. Since April 2012, Mr. Epstein has served as a member of the Board of Directors of Shutterstock, Inc., a global provider of licensed imagery, and serves as Chairman of its Audit Committee and as a member of its Nominating and Corporate Governance Committee. Since April 2013, Mr. Epstein has served as a member of the Board of Directors of Kaiser Permanente, a leading U.S. not-for-profit health care provider and health plan. Mr. Epstein holds a B.A. from Yale University and an M.B.A. from Stanford University.

Mr. Epstein was selected to serve on our board of directors because of his experience as an executive and director of technology companies.

Director Independence

Our Class A common stock is listed on The New York Stock Exchange. Under the NYSE Listing Standards, independent directors must comprise a majority of a listed company's board of directors. In addition, the NYSE Listing Standards require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent. Under the NYSE Listing Standards, a director will only qualify as an "independent director" if, in the opinion of that listed company's board of directors, that director does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Audit committee members must also satisfy the additional independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and the NYSE Listing Standards. Compensation committee members must also satisfy the additional independence criteria set forth in Rule 10C-1 under the Exchange Act and the NYSE Listing Standards.

Our board of directors has undertaken a review of the independence of each director. Based on information provided by each director concerning his or her background, employment and affiliations, our board of directors has determined that Messrs. Dalzell, Deeter, Immelt and Epstein, and Mses. Donio,

Dubinsky and Rottenberg do not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is “independent” as that term is defined under the NYSE Listing Standards. In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with our Company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director, and the transactions involving them described in the section titled “Certain Relationships and Related Party Transactions.”

Board Leadership Structure and Role of Our Lead Independent Director

Mr. Lawson currently serves as both the Chairperson of our board of directors and as our Chief Executive Officer. Our non-management directors bring experience, oversight and expertise from outside of our Company, while Mr. Lawson brings Company-specific experience and expertise. As our co-founder, Mr. Lawson is best positioned to identify strategic priorities, lead critical discussions and execute our business plans.

Since Mr. Lawson is the Chairperson of our board of directors and is not an “independent” director pursuant to the NYSE Listing Standards, in December 2017, we appointed Mr. Jeffrey Epstein to serve as our lead independent director. Mr. Epstein serves as a liaison between our Chief Executive Officer and Chairperson and our independent directors and performs such additional duties as our board of directors may otherwise determine and delegate. In addition, our independent directors, who are the sole members of each of our board committees, provide strong independent leadership for each of these committees. Our independent directors generally meet in executive session after each meeting of the board of directors. At each such meeting, the presiding director for each executive session of our board of directors will be either (i) the lead independent director or (ii) chosen by the independent directors.

We believe that the structure of our board of directors and committees of our board of directors provides effective independent oversight of management while Mr. Lawson’s combined role enables strong leadership, creates clear accountability and enhances our ability to communicate our message and strategy clearly and consistently to stockholders.

Board Meetings and Committees

Our board of directors may establish the authorized number of directors from time to time by resolution. Our board of directors currently consists of eight members.

During our fiscal year ended December 31, 2019, our board of directors held five meetings (including regularly scheduled and special meetings), and each director attended at least 75% of the aggregate of (i) the total number of meetings of our board of directors held during the period for which he or she had been a director and (ii) the total number of meetings held by all committees of our board of directors on which he or she served during the periods that he or she served.

Although our Corporate Governance Guidelines do not have a formal policy regarding attendance by members of our board of directors at annual meetings of stockholders, we encourage, but do not require, our directors to attend. All members of our board of directors then serving in such capacity, except Messrs. Epstein and Deeter attended our 2019 annual meeting of stockholders.

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each of the committees of our board of directors is described below. Members serve on these committees until their resignation or until as otherwise determined by our board of directors.

Audit Committee

Our audit committee consists of Mr. Epstein and Mses. Dubinsky and Rottenberg, with Mr. Epstein serving as Chairperson. Each member of our audit committee meets the requirements for independence under the NYSE Listing Standards and SEC rules. Each member of our audit committee also meets the financial literacy and sophistication requirements of the NYSE Listing Standards. In addition, our board of directors has determined that each of Mr. Epstein and Ms. Dubinsky is an audit committee financial expert within the meaning of Item 407(d) of Regulation S-K under the Securities Act of 1933, as amended (the “**Securities Act**”). Our audit committee, among other things:

- selects a qualified firm to serve as the independent registered public accounting firm to audit our financial statements;
- helps to ensure the independence and performance of the independent registered public accounting firm;
- discusses the scope and results of the audit with the independent registered public accounting firm, and reviews, with management and the independent registered public accounting firm, our interim and year-end results of operations;
- develops procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviews our policies on risk assessment and risk management;
- reviews related party transactions; and
- approves or, as required, pre-approves, all audit and all permissible non-audit services, other than de minimis non-audit services, to be performed by the independent registered public accounting firm.

Our audit committee operates under a written charter that satisfies the applicable rules and regulations of the SEC and the NYSE Listing Standards. A copy of the charter of our audit committee is available on our website at <https://investors.twilio.com/>.

Our audit committee held nine meetings during fiscal year 2019.

Compensation Committee

Our compensation committee consists of Ms. Donio and Messrs. Dalzell and Immelt, with Ms. Donio serving as Chairperson. Each member of our compensation committee meets the requirements for independence under the NYSE Listing Standards and SEC rules. Each member of our compensation committee is also a non-employee director, as defined pursuant to Rule 16b-3 promulgated under the Exchange Act (“**Rule 16b-3**”). Our compensation committee, among other things:

- reviews, determines, and approves, or makes recommendations to our board of directors regarding, the compensation of our executive officers;
- administers our stock and equity compensation plans;
- reviews and approves, or makes recommendations to our board of directors, regarding incentive compensation and equity compensation plans; and
- establishes and reviews general policies relating to compensation and benefits of our employees.

Our compensation committee operates under a written charter that satisfies the applicable rules of the SEC and the NYSE Listing Standards. A copy of the charter of our compensation committee is available on our website at <https://investors.twilio.com/>.

Our compensation committee held eight meetings during fiscal year 2019.

Nominating and Corporate Governance Committee

Our nominating and governance committee consists of Ms. Rottenberg and Messrs. Dalzell and Deeter, with Ms. Rottenberg serving as Chairperson. Each member of our nominating and governance committee meets the requirements for independence under the NYSE Listing Standards and SEC rules. Our nominating and corporate governance committee, among other things:

- identifies, evaluates and selects, or makes recommendations to our board of directors regarding, nominees for election to our board of directors and its committees;
- considers and makes recommendations to our board of directors regarding the composition of our board of directors and its committees;
- reviews and assesses the adequacy of our corporate governance guidelines and policies and practices and recommends any proposed changes to our board of directors;
- oversees and periodically reviews our environmental, social and governance activities and programs; and
- evaluates the performance of our board of directors and of individual directors.

Our nominating and corporate governance committee operates under a written charter that satisfies the applicable NYSE Listing Standards. A copy of the charter of our nominating and corporate governance committee is available on our website at <https://investors.twilio.com/>.

Our nominating and corporate governance committee held four meetings during fiscal year 2019.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee is or has been an officer or employee of our Company. None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee (or other board committee performing equivalent functions) of any entity that has one or more of its executive officers serving on our board of directors or compensation committee. See the section titled “Certain Relationships and Related Party Transactions” for information about related party transactions involving members of our compensation committee or their affiliates.

Identifying and Evaluating Director Nominees

The board of directors has delegated to the nominating and corporate governance committee the responsibility of identifying suitable candidates for nomination to the board of directors (including candidates to fill any vacancies that may occur) and assessing their qualifications in light of the policies and principles in these corporate governance guidelines and the committee’s charter. The nominating and corporate governance committee may gather information about the candidates through interviews, detailed questionnaires, comprehensive background checks or any other means that the nominating and corporate governance committee deems to be appropriate in the evaluation process. The nominating and corporate governance committee then meets as a group to discuss and evaluate the qualities and skills of each candidate, both on an individual basis and taking into account the overall composition and needs of the board of directors. Based on the results of the evaluation process, the nominating and corporate governance committee recommends candidates for the board of director’s approval as director nominees for election to the board of directors.

Minimum Qualifications

Our nominating and corporate governance committee uses a variety of methods for identifying and evaluating director nominees and will consider all facts and circumstances that it deems appropriate or

advisable. In its identification and evaluation of director candidates, our nominating and corporate governance committee will consider the current size and composition of our board of directors and the needs of our board of directors and the respective committees of our board of directors. Some of the qualifications that our nominating and corporate governance committee considers include, without limitation, issues of character, ethics, integrity, judgment, diversity of experience, independence, skills, education, expertise, business acumen, length of service, understanding of our business and industry, potential conflicts of interest and other commitments. Nominees must also have proven achievement and competence in their field, the ability to offer advice and guidance to our management team, the ability to make significant contributions to our success, and an understanding of the fiduciary responsibilities that are required of a director. Director candidates must have sufficient time available in the judgment of our nominating and corporate governance committee to perform all board of director and committee responsibilities. Members of our board of directors are expected to prepare for, attend, and participate in all board of director and applicable committee meetings. Other than the foregoing, there are no stated minimum criteria for director nominees, although our nominating and corporate governance committee may also consider such other factors as it may deem, from time to time, are in our and our stockholders' best interests.

Although our board of directors does not maintain a specific policy with respect to board diversity, our board of directors believes that our board of directors should be a diverse body, and our nominating and corporate governance committee endeavors to consider candidates who represent a mix of backgrounds, gender, diversity of race or ethnicity, age, skills and professional experiences that enhance the quality of deliberations and decisions of the board of directors. In making determinations regarding nominations of directors, our nominating and corporate governance committee takes into account the benefits of diverse viewpoints. Our nominating and corporate governance committee also considers these and other factors as it oversees the annual board of directors and committee evaluations. After completing its review and evaluation of director candidates, our nominating and corporate governance committee recommends to our full board of directors the director nominees for selection.

Stockholder Recommendations and Nominations to the Board of Directors

Stockholders may submit recommendations for director candidates to the nominating and corporate governance committee by sending the individual's name and qualifications to our General Counsel at Twilio Inc., 101 Spear Street, First Floor, San Francisco, CA 94105, who will forward all recommendations to the nominating and corporate governance committee. The nominating and corporate governance committee will evaluate any candidates recommended by stockholders against the same criteria and pursuant to the same policies and procedures applicable to the evaluation of candidates proposed by directors or management.

Stockholder and Other Interested Party Communications

The board of directors provides to every stockholder and any other interested parties the ability to communicate with the board of directors, as a whole, and with individual directors on the board of directors through an established process for stockholder communication. For a stockholder communication directed to the board of directors as a whole, stockholders and other interested parties may send such communication to our General Counsel via U.S. Mail or Expedited Delivery Service to: Twilio Inc., 101 Spear Street, First Floor, San Francisco, CA 94105, Attn: Board of Directors c/o General Counsel.

For a stockholder or other interested party communication directed to an individual director in his or her capacity as a member of the board of directors, stockholders and other interested parties may send such communication to the attention of the individual director via U.S. Mail or Expedited Delivery Service to: Twilio Inc., 101 Spear Street, First Floor, San Francisco, CA 94105, Attn: [Name of Individual Director].

In light of shelter-in-place restrictions currently in place due to COVID-19, we encourage stockholders to e-mail any such communications to us at legalnotices@twilio.com to help ensure prompt receipt. Our General Counsel, in consultation with appropriate members of our board of directors as necessary, will review all incoming communications and, if appropriate, all such communications will be forwarded to the appropriate member or members of our board of directors, or if none is specified, to the Chairperson of our board of directors.

Corporate Governance Guidelines and Code of Business Conduct and Ethics

Our board of directors has adopted Corporate Governance Guidelines that address items such as the qualifications and responsibilities of our directors and director candidates and corporate governance policies and standards applicable to us in general. In addition, our board of directors has adopted a code of business conduct and ethics that applies to all of our employees, officers and directors including our Chief Executive Officer, Chief Financial Officer, and other executive and senior financial officers. A copy of our Corporate Governance Guidelines and Code of Business Conduct and Ethics is available on our Internet website at <https://investors.twilio.com> and may also be obtained without charge by contacting our Corporate Secretary at Twilio Inc., 101 Spear Street, First Floor, San Francisco, CA 94105. We intend to disclose any amendments to our code of business conduct and ethics, or waivers of its requirements, on our website or in filings under the Exchange Act, as required by the applicable rules and exchange requirements. During fiscal year 2019, no waivers were granted from any provision of our Code of Business Conduct and Ethics.

Our Commitment to Environmental, Social and Governance Matters

At Twilio, we recognize the impact that a business can have on its surrounding community and environment, and we believe that an organization has the responsibility to be a good corporate citizen. We also value our employees and recognize the critical roles that they play in the achievement of our long-term goals and overall success. The following is intended as a summary of some of the steps we are taking to create a safe and inclusive workplace for our employees and to foster positive impact in our communities and for our stakeholders.

Board Oversight

We are committed to sound governance and oversight of our impact on the surrounding community and environment. This is one of the reasons that our Nominating and Corporate Governance Committee of the board of directors has direct oversight of our environmental, social and governance activities and related strategies.

Environmental

We recognize the impact that companies can have on the environment and we are working to integrate sustainability initiatives into our business practices, including the evaluation of energy conservation and energy efficiency initiatives that can help reduce greenhouse emissions at our facilities. We have also recently begun to measure our carbon footprint with the goal of reducing it in the future. Additionally, we are monitoring our water usage and creating a systematic global approach to responsibly dispose of our electronic waste, including through participation in vendor buy-back programs or e-cycling. Finally, we are fostering the promotion of conservation by recycling, composting, and source reduction in all of our offices globally.

Community Involvement and Philanthropy

We acknowledge our responsibility to the communities around us and believe that our philanthropic activities are beneficial for long-term shareholder value. The mission of Twilio.org, our social impact arm,

is to fuel communications that give hope, power, and freedom with a 10-year goal to help one billion people every year. Since launching Twilio.org, we've learned that social responsibility is as critical to our success as a company as any other initiative and we remain committed to community involvement and philanthropy today more than ever. We actively build ties to the community, so that as we grow and scale as a company, we also increase our ability to generate social impact. We've seen social impact organizations use communications to solve some of the world's biggest social and environmental problems. That's why Twilio.org deploys our technology, our team, and grant-funding to fuel potentially life-changing communications. For instance, Twilio.org has helped nonprofit organizations create a 24/7 SMS hotline to fight human trafficking, use programmable SMS to proactively reach out in offer of support to potential victims of human trafficking posted in online ads, and develop artificial intelligence-powered SMS bots to disrupt sex trafficking by preventing buyers from connecting with victims. Additionally, our crisis response and prevention initiative enables and improves communication efforts by non-profits which in turn supports people experiencing crises.

In 2015, we reserved 1% of our Class A common stock to fund social impact at our Company. In March 2019, we increased the Twilio.org share reserve by 203,658 shares of Class A common stock to account for a similar program previously operated by SendGrid, Inc. (which we acquired in February 2019). Since 2015, as detailed more below, Twilio.org has made millions of dollars in donations consistent with its philanthropic goals.

During 2019, Twilio.org implemented the WePledge program to engage employees in doing good. Through the WePledge program, our employees pledge 1% of their time or financial resources toward causes they care about. In turn, we provide each employee with \$500 in matching donations annually, on-going community service opportunities, and 20 hours of paid volunteer time-off. We also make it easy for employees to donate a portion of their vested company equity in lieu of a cash donation. Since the program's launch in September 2019, hundreds of our employees have already taken the pledge to commit 1%, resulting in the donation of hundreds of thousands of dollars and nearly 5,000 volunteer hours that support more than 450 charitable organizations.

Compliance & Ethics

Our culture of integrity starts with our Corporate Governance Guidelines and Code of Business Conduct and Ethics, which includes efforts in risk assessment, development of policies, procedures, training, auditing, monitoring, investigations, and remediation of potential compliance matters. We have also implemented mandatory anti-harassment, anti-corruption and anti-bribery training as well as more targeted compliance training to address the compliance risks of specific roles and business functions.

Furthermore, in order to promote a high standard of ethical and professional conduct within our Company, we have engaged with an impartial third party to administer an ethics reporting hotline where, as permitted by law, employees, contractors, customers and vendors may address any issues on a confidential and anonymous basis. Employees may choose the method with which they are most comfortable to discuss any issues or complaints, whether it is through their manager, our human resources partners, or the reporting hotline. In addition, our Code of Business Conduct and Ethics applies to all of our employees, including our officers and board of directors. Violation of the Code of Business Conduct and Ethics may result in disciplinary action, up to and including termination of employment.

Data Protection

We are committed to protecting the privacy and data of our developer ecosystem, customers and users. We have implemented policies and procedures that facilitate compliance with applicable privacy laws, including the California Consumer Privacy Act ("CCPA") and the General Data Protection Regulation ("GDPR"), and work to use privacy by design in our review and building processes. For example, in 2016, even before GDPR became effective, we started the process of putting in place our

own Binding Corporate Rules ("BCRs")—considered one of the highest global standards for data protection that a company can have. Our BCRs codify our guiding principles and approach to compliance with data protection laws when processing personal information.

In addition to our working to maintain data privacy and security, we have proactively taken steps to provide increased visibility to the Twilio community around government requests received for customer information by municipal, state, provincial and federal governments globally. We do this by publishing semi-annual transparency reports. Our transparency reports document the total volume of government requests for information received by us, how we responded to the requests, and how often we notified users of the requests.

Furthermore, we train employees on policies and procedures for secure data handling and use physical and procedural safeguards to help keep our facilities and equipment secure. All of our employees and contractors are required to complete privacy and security training every year.

Diversity & Inclusion

At Twilio, we strive to build equity, equality, and belonging to make communication more inclusive for all. Our Diversity and Inclusion mission is to foster an equitable approach to hiring, delivering on a promise of equality for all in career development, compensation and growth, and to foster a sense of belonging for everyone at our Company. We believe that a company culture focused on diversity and inclusion is a key driver of creativity and innovation and that diverse and inclusive teams make better business decisions, which ultimately drives better business performance. For example, we created "Twilio After Hours," which aims to create inclusive environments designed for groups who are commonly underrepresented in the tech community; "Hatch" to invite candidates from underrepresented and non-traditional backgrounds to launch tech careers through mentorship, apprenticeship and skill development; and implemented "Crack the Code," a program that promotes best practices around attracting, recruiting, and retaining developer talent while building a culture of inclusivity.

In addition, we work hard to maintain and enhance our diverse and inclusive environment, creating a workplace where people are highly valued and are empowered to do their best work. Our employee resource groups, such as Black Twilions, Latinx @ Twilio, S.E.A.T., Spectrum, Women @ Twilio, Wonder, Twilipinos, and Twarriors offer our employees support, mentoring and networking opportunities and help to foster a friendly and diverse workplace.

Risk Management

Risk is inherent with every business, and we face a number of risks, including strategic, financial, business and operational, cyber security, legal and compliance, and reputational. We have designed and implemented processes to manage risk in our operations. Management is responsible for the day-to-day management of risks the Company faces, while our board of directors, as a whole and assisted by its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are appropriate and functioning as designed.

Our board of directors believes that open communication between management and our board of directors is essential for effective risk management and oversight. Our board of directors meets with our Chief Executive Officer and other members of the senior management team at quarterly meetings of our board of directors, where, among other topics, they discuss strategy and risks facing the Company, as well as such other times as they deem appropriate.

While our board of directors is ultimately responsible for risk oversight, our board committees assist our board of directors in fulfilling its oversight responsibilities in certain areas of risk. Our audit committee assists our board of directors in fulfilling its oversight responsibilities with respect to risk management in

the areas of internal control over financial reporting and disclosure controls and procedures, cybersecurity and security, legal and regulatory compliance, and discusses with management and the independent auditor guidelines and policies with respect to risk assessment and risk management. Our audit committee also reviews our major financial risk exposures and the steps management has taken to monitor and control these exposures. Our audit committee also monitors certain key risks on a regular basis throughout the fiscal year, such as risk associated with internal control over financial reporting and liquidity risk. Our nominating and corporate governance committee assists our board of directors in fulfilling its oversight responsibilities with respect to the management of risk associated with board organization, membership and structure, and corporate governance. Our compensation committee assesses risks created by the incentives inherent in our compensation programs, policies and practices. Finally, our full board of directors reviews strategic and operational risk in the context of reports from the management team, receives reports on all significant committee activities at each regular meeting, and evaluates the risks inherent in significant transactions.

Non-Employee Director Compensation

Non-Employee Director Compensation Policy

We believe that a combination of cash and equity compensation is appropriate to attract and retain the individuals we desire to serve on our board of directors and that this approach is comparable to the policies of our peers. We further believe that it is appropriate to provide cash compensation to our non-employee directors to compensate them for their time and effort and to provide equity compensation to our non-employee directors to align their long-term interests with those of the Company and our stockholders.

Upon the recommendation of our compensation committee, in May 2016, our board of directors adopted a non-employee director compensation policy (as amended and restated from time to time, the “**Non-Employee Director Compensation Policy**”) for the compensation of our non-employee directors. Our compensation committee conducts an annual evaluation of the design and competitiveness of our Non-Employee Director Compensation Policy in light of best practices, market trends and a competitive market analysis of data for the Company’s compensation peer group prepared by the compensation committee’s compensation consultant and makes appropriate recommendations to our board of directors with respect to the compensation of our non-employee directors.

During 2019, our compensation committee engaged Compensia, Inc. (“**Compensia**”), a national compensation consulting firm, as its compensation consultant to advise on, among other things, non-employee director compensation matters. In doing so, our compensation committee reviewed and considered a peer group compensation data analysis prepared by Compensia. Our compensation committee did not strictly target any specific levels of pay, and instead, used the comparative market analysis provided by Compensia as a reference point in its decision-making process. In June 2019, after reviewing the comparative market analysis in consultation with Compensia, our compensation committee recommended that no changes be made for 2019 to our Non-Employee Director Compensation Policy.

Our non-employee directors currently receive compensation in the form of cash retainers and equity awards as set forth below.

Annual Retainer for Board Membership

Annual service on the board of directors	\$30,000
Additional Annual Retainer for Lead Independent Director	\$18,000
Additional Annual Retainer for Committee Membership	
Annual service as member of the audit committee (other than chair)	\$ 9,000
Annual service as chair of the audit committee	\$18,000
Annual service as member of the compensation committee (other than chair)	\$ 9,000
Annual service as chair of the compensation committee	\$18,000
Annual service as member of the nominating and corporate governance committee (other than chair)	\$ 3,500
Annual service as chair of the nominating and corporate governance committee	\$ 7,000

Our Non-Employee Director Compensation Policy during fiscal year 2019 provided that, upon initial election to our board of directors, each non-employee director would be granted restricted stock units (“RSUs”) having a value of \$425,000 (the “**Initial Grant**”). In addition, on the date of each of our annual meetings of stockholders, each non-employee director who would continue as a member of our board of directors following such annual meeting of stockholders would be granted an annual award of RSUs having a value of \$200,000 (the “**Annual Grant**”). During fiscal year 2019, the number of RSUs for the Initial Grant and the Annual Grant were determined by dividing the applicable values by the average closing market price on The New York Stock Exchange (or such other market on which the Company’s Class A common stock is then principally listed) of one share of the Company’s Class A common stock over the trailing 30-day period ending five business days before the effective date of the grant. The Initial Grant vests in equal annual installments over three years, subject to continued service as a director through the applicable vesting dates. The Annual Grant vests in full on the earlier of (i) the one-year anniversary of the grant date or (ii) our next annual meeting of stockholders, subject to continued service as a director through the applicable vesting date. Such awards are subject to full accelerated vesting upon a “sale event,” as defined in our 2016 Stock Option and Incentive Plan (as amended and restated, the “**2016 Plan**”).

Our Non-Employee Director Compensation Policy also provides that, pursuant to the 2016 Plan, the aggregate amount of compensation, including both equity compensation and cash compensation, paid to any non-employee director in a calendar year will not exceed \$750,000 (or such other limit as may be set forth in the 2016 Plan or any similar provision of a successor plan).

Employee directors receive no additional compensation for their service as a director.

We also reimburse all reasonable out-of-pocket expenses incurred by our non-employee directors for their attendance at meetings of our board of directors or any committee thereof.

Non-Employee Directors’ Deferred Compensation Program

In July 2017, we implemented a Non-Employee Directors’ Deferred Compensation Program to offer our non-employee directors the ability to defer the receipt of any RSUs granted to them from Initial Grants or Annual Grants under the 2016 Plan. In advance of an award of RSUs and in compliance with the program’s requirements, a non-employee director may elect to defer the receipt of all of his or her RSUs until the earliest of (i) 90 days after such non-employee director ceases to serve as a member of our board of directors; (ii) the consummation of a “sale event”; or (iii) 90 days after the non-employee director’s death (such earliest date, the “**Payment Event**”). Upon the vesting of the RSUs, any amounts that would otherwise have been paid in shares of Company common stock will be converted into deferred stock units (“DSUs”) on a one-to-one basis and credited to the non-employee director’s deferral account.

The DSUs will be paid in shares of Company Class A common stock on a one-to-one basis in a single lump sum (and will cease to be held in the non-employee director’s deferred account) as soon as practicable following the Payment Event.

Stock Ownership Policy

In April 2018, we adopted a stock ownership policy for our non-employee directors, which requires such directors to acquire and hold the lesser of (i) a number of shares of our Company’s common stock equal in value to three times the director’s annual cash retainer for regular service on the board of directors or (ii) 2,500 shares of our Company’s common stock, until such director’s service on the board of directors ceases. We only count directly and beneficially owned shares, including shares purchased through our Company’s 2016 Employee Stock Purchase Plan (as amended and restated, the “**ESPP**”) or 401(k) plan, if applicable, shares underlying vested RSUs that are held or deferred and shares underlying vested and unexercised in-the-money stock options. Each non-employee director has three years from the later of his or her initial election to the board of directors or from the effective date of the policy to attain the required ownership level.

2019 Non-Employee Director Compensation Table

The following table provides information regarding the total compensation that was earned by or paid to each of our non-employee directors in fiscal year 2019. Mr. Lawson, who is our Chief Executive Officer, did not receive any additional compensation for his service as a director. The compensation received by Mr. Lawson, as a named executive officer, is presented in “Executive Compensation—Summary Compensation Table.”

<u>Name</u>	<u>Fees earned or paid in cash (\$)</u>	<u>Stock awards (\$)⁽¹⁾</u>	<u>Total (\$)</u>
Richard Dalzell ⁽²⁾	47,000	211,016	258,016
Byron Deeter ⁽³⁾	30,000	211,016	241,016
Elena Donio ⁽⁴⁾	48,000	211,016	259,016
Donna Dubinsky ⁽⁵⁾	39,000	211,016	250,016
Jeffrey Epstein ⁽⁶⁾	66,000	211,016	277,016
Jeffrey Immelt ⁽⁷⁾	20,750	458,545	479,295
Erika Rottenberg ⁽⁸⁾	50,500	211,016	261,516

- (1) The amounts reported represent the aggregate grant date fair values of the RSUs awarded to the non-employee directors in the fiscal year ended December 31, 2019, calculated in accordance with FASB ASC Topic 718. Such grant date fair values do not take into account any estimated forfeitures related to service-based vesting conditions. The valuation assumptions used in determining such amounts are described in the Notes to Consolidated Financial Statements included in our Annual Report on Form 10-K filed with the SEC on March 2, 2020. The amounts reflect the accounting cost for the RSUs and do not correspond to the actual economic value that may be received by the directors upon vesting or settlement of the RSUs.
- (2) As of December 31, 2019, Mr. Dalzell held an outstanding option to purchase a total of 117,500 shares of our Class B common stock and also held 1,483 RSUs.
- (3) As of December 31, 2019, Mr. Deeter held 1,483 RSUs.
- (4) As of December 31, 2019, Ms. Donio held 1,483 RSUs.
- (5) As of December 31, 2019, Ms. Dubinsky held 4,846 RSUs.

- (6) As of December 31, 2019, Mr. Epstein held 16,535 RSUs. Pursuant to the Non-Employee Director's Deferred Compensation Program, Mr. Epstein has elected to defer all 16,535 RSUs.
- (7) Mr. Immelt joined our board of directors effective June 19, 2019 and his cash retainers were pro-rated accordingly. As of December 31, 2019, Mr. Immelt held 3,130 RSUs.
- (8) As of December 31, 2019, Ms. Rottenberg held 1,483 RSUs.

PROPOSAL NO. 1
ELECTION OF DIRECTORS

Our board of directors is currently composed of eight members. In accordance with our amended and restated certificate of incorporation, our board of directors is divided into three staggered classes of directors. At the Annual Meeting, three Class I directors will be elected for a three-year term to succeed the same class whose term is then expiring.

Each director's term continues until the election and qualification of his or her successor, or such director's earlier death, resignation or removal. Any increase or decrease in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of our directors. This classification of our board of directors may have the effect of delaying or preventing changes in the control of our Company.

Nominees

Our nominating and corporate governance committee has recommended, and our board of directors has approved, Richard Dalzell, Jeffrey Immelt and Erika Rottenberg as nominees for election as Class I directors at the Annual Meeting. If elected, each of Messrs. Dalzell and Immelt and Ms. Rottenberg will serve as Class I directors until the 2023 annual meeting of stockholders and until their successors are duly elected and qualified. Each of the nominees is currently a director of our Company. For information concerning the nominees, please see the section titled "Board of Directors and Corporate Governance."

If you are a stockholder of record and you sign your proxy card or vote by telephone or over the Internet but do not give instructions with respect to the voting of directors, your shares will be voted "FOR" the election of Messrs. Dalzell and Immelt and Ms. Rottenberg. We expect that Messrs. Dalzell and Immelt and Ms. Rottenberg will each accept such nomination; however, in the event that a director nominee is unable or declines to serve as a director at the time of the Annual Meeting, the proxies will be voted for any nominee designated by our board of directors to fill such vacancy. If you are a street name stockholder and you do not give voting instructions to your broker or nominee, your broker will leave your shares unvoted on this matter.

Vote Required

The election of directors requires a plurality of the voting power of the shares of our common stock be present virtually or by proxy at the Annual Meeting and entitled to vote thereon to be approved. Broker non-votes will have no effect on this proposal.

Recommendation of the Board

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR"
EACH OF THE NOMINEES NAMED ABOVE.

PROPOSAL NO. 2

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our audit committee has appointed KPMG LLP (“KPMG”), an independent registered public accounting firm, to audit our consolidated financial statements for our fiscal year ending December 31, 2020. During our fiscal year ended December 31, 2019, KPMG served as our independent registered public accounting firm.

Notwithstanding the appointment of KPMG, and even if our stockholders ratify the appointment, our audit committee, in its discretion, may appoint another independent registered public accounting firm at any time during our fiscal year if our audit committee believes that such a change would be in the best interests of our Company and our stockholders. At the Annual Meeting, our stockholders are being asked to ratify the appointment of KPMG as our independent registered public accounting firm for our fiscal year ending December 31, 2020. Our audit committee is submitting the appointment of KPMG to our stockholders because we value our stockholders’ views on our independent registered public accounting firm and as a matter of good corporate governance. Representatives of KPMG will be present at the Annual Meeting, and they will have an opportunity to make a statement and will be available to respond to appropriate questions from our stockholders.

If our stockholders do not ratify the appointment of KPMG, our audit committee may reconsider the appointment.

Fees Paid to the Independent Registered Public Accounting Firm

The following table presents fees for professional audit services and other services rendered to our Company by KPMG for our fiscal years ended December 31, 2018 and 2019.

	<u>2018</u>	<u>2019</u>
	<u>(in thousands)</u>	
Audit Fees ⁽¹⁾	\$3,556	\$4,390
Audit-Related Fees ⁽²⁾	\$ 145	\$ —
Tax Fees ⁽³⁾	\$ —	\$ 97
All Other Fees	<u>\$ —</u>	<u>\$ —</u>
Total Fees	<u>\$3,701</u>	<u>\$4,487</u>

- (1) Audit Fees consist of professional services rendered in connection with the audit of our annual consolidated financial statements, including audited financial statements presented in our Annual Report on Form 10-K and services that are normally provided by the independent registered public accountants in connection with statutory and regulatory filings or engagements for those fiscal years, and the review of the financial statements included in our quarterly reports. Fees for fiscal year 2019 also consisted of fees related to SEC registration statements and other filings, comfort letters and consents, adoption of accounting pronouncements, acquisitions and also our follow on offering.
- (2) Audit-Related Fees consist of professional services rendered in connection with the due diligence of transactions or events, including acquisitions.
- (3) Tax fees consist of fees billed for professional services for tax compliance, tax advice and tax planning. These services include assistance regarding federal and state tax compliance.

Auditor Independence

In our fiscal year ended December 31, 2019, there were no other professional services provided by KPMG, other than those listed above, that would have required our audit committee to consider their compatibility with maintaining the independence of KPMG.

Audit Committee Policy on Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

Our audit committee has established a policy governing our use of the services of our independent registered public accounting firm. Under this policy, our audit committee is required to pre-approve all audit, internal control-related services and permissible non-audit services performed by our independent registered public accounting firm in order to ensure that the provision of such services does not impair the public accountants' independence. All services provided by KPMG for our fiscal years ended December 31, 2018 and 2019 were pre-approved by our audit committee and were compatible with maintaining KPMG's independence.

Vote Required

The ratification of the appointment of KPMG as our independent registered public accounting firm for our fiscal year ending December 31, 2020 requires the affirmative vote of a majority of the voting power of the shares of our common stock present virtually or by proxy at the Annual Meeting and entitled to vote thereon. Abstentions will have the effect of a vote against this proposal, and broker non-votes will have no effect.

Recommendation of the Board

THE BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE RATIFICATION OF THE APPOINTMENT OF KPMG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM.

PROPOSAL NO. 3

NON-BINDING ADVISORY VOTE TO APPROVE THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

Section 14A of the Exchange Act requires that we provide our stockholders with the opportunity to vote to approve, on a non-binding, advisory basis, not less frequently than once every three years, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the compensation disclosure rules of the SEC. As described in detail under the heading “Executive Compensation—Compensation Discussion and Analysis,” we seek to closely align the interests of our named executive officers with the interests of our stockholders.

Our compensation programs are designed to effectively align our executives’ interests with the interests of our stockholders by focusing on long-term equity incentives that correlate with the growth of sustainable long-term value for our stockholders.

Stockholders are urged to read the section titled “Executive Compensation” and, in particular, the section titled “Executive Compensation—Compensation Discussion and Analysis” in this proxy statement, which discusses how our executive compensation program policies and practices implement our compensation philosophy and contains tabular information and narrative discussion about the compensation of our named executive officers. Our board of directors and our compensation committee believe that these policies and practices are effective in implementing our compensation philosophy and in achieving our compensation program goals.

The vote on this resolution is not intended to address any specific element of compensation; rather, the vote relates to the compensation of our named executive officers, as described in this proxy statement in accordance with the compensation disclosure rules of the SEC.

Accordingly, we are asking our stockholders to vote on the following resolution at the Annual Meeting:

RESOLVED, that the stockholders hereby approve, on a non-binding advisory basis, the compensation paid to the Company’s named executive officers, as disclosed in the Company’s proxy statement for the 2020 Annual Meeting of Stockholders, pursuant to the compensation disclosure rules of the SEC, including the Compensation Discussion and Analysis, the compensation tables and the narrative discussions that accompany the compensation tables.

Vote Required

The approval of this advisory non-binding proposal requires the affirmative vote of a majority of the voting power of the shares of our common stock present virtually or by proxy at the Annual Meeting and entitled to vote thereon. Abstentions will have the effect of a vote “against” this proposal, and broker non-votes will have no effect.

The vote is advisory, which means that the vote is not binding on the Company, our board of directors or our compensation committee. To the extent there is any significant vote against our named executive officer compensation as disclosed in this proxy statement, our compensation committee will evaluate whether any actions are necessary to address the concerns of stockholders.

Recommendation of the Board

THE BOARD RECOMMENDS THAT YOU VOTE “FOR” THE APPROVAL, ON A NON-BINDING ADVISORY BASIS, OF THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS, AS DISCLOSED IN THIS PROXY STATEMENT.

REPORT OF THE AUDIT COMMITTEE

The audit committee is a committee of the board of directors comprised solely of independent directors as required by the listing standards of The New York Stock Exchange and rules of the Securities and Exchange Commission (“SEC”). The audit committee operates under a written charter approved by our board of directors, which is available on our web site at <https://investors.twilio.com/>. The composition of the audit committee, the attributes of its members and the responsibilities of the audit committee, as reflected in its charter, are intended to be in accordance with applicable requirements for corporate audit committees. The audit committee reviews and assesses the adequacy of its charter and the audit committee’s performance on an annual basis.

With respect to our financial reporting process, our management is responsible for (1) establishing and maintaining internal controls and (2) preparing our consolidated financial statements. Our independent registered public accounting firm, KPMG LLP (“KPMG”), is responsible for performing an independent audit of our consolidated financial statements and our internal control over financing reporting in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), and to issue a report thereon. It is the responsibility of the audit committee to oversee these activities. It is not the responsibility of the audit committee to prepare our financial statements. These are the fundamental responsibilities of management. In the performance of its oversight function, the audit committee has:

- reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2019 and management’s report on internal control over financial reporting with management and KPMG;
- discussed with KPMG the matters required to be discussed by the statement on Auditing Standards No. 1301, as amended (AICPA, Professional Standards, Vol. 1. AU section 380), and as adopted by the PCAOB in Rule 3200T; and
- received the written disclosures and the letter from KPMG required by applicable requirements of the PCAOB regarding the independent accountant’s communications with the audit committee concerning independence and has discussed with KPMG its independence.

Based on the audit committee’s review and discussions with management and KPMG, the audit committee recommended to the board of directors that the audited financial statements be included in the Annual Report on Form 10-K for the fiscal year ended December 31, 2019 for filing with the SEC.

Respectfully submitted by the members of the audit committee of the board of directors:

Jeffrey Epstein (Chair)
Donna L. Dubinsky
Erika Rottenberg

This report of the audit committee is required by the SEC and, in accordance with the SEC’s rules, will not be deemed to be part of or incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act or under the Exchange Act, except to the extent that we specifically incorporate this information by reference, and will not otherwise be deemed “soliciting material” or “filed” under either the Securities Act or the Exchange Act.

EXECUTIVE OFFICERS

The following table identifies certain information about our executive officers as of March 31, 2020. Our executive officers are appointed by, and serve at the discretion of, our board of directors and hold office until his or her successor is duly elected and qualified or until his or her earlier resignation or removal. There are no family relationships among any of our directors or executive officers.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Jeff Lawson	42	Co-Founder, Chief Executive Officer and Chairperson
Khozema Shipchandler	46	Chief Financial Officer
George Hu	45	Chief Operating Officer
Chee Chew	49	Chief Product Officer
Karyn Smith	55	General Counsel and Corporate Secretary

Executive Officers

Jeff Lawson. Mr. Lawson is one of our founders and has served as our Chief Executive Officer and as a member of our board of directors since April 2008 and has served as the Chairperson of our board of directors since November 2015. From 2001 to 2008, Mr. Lawson served as founder and Chief Technology Officer of Nine Star, Inc., a multi-channel retailer of equipment and apparel to the action sports industry. From 2004 to 2005, Mr. Lawson served as Technical Product Manager of Amazon.com, Inc., an electronic commerce and cloud computing company. In 2000, Mr. Lawson served as Chief Technology Officer of StubHub, Inc., an online marketplace for live entertainment events. From 1998 to 2000, Mr. Lawson served in several roles at Versity.com, Inc., a website for college lecture notes, including as founder, Chief Executive Officer and Chief Technology Officer. Mr. Lawson holds a B.S. in Computer Science and Film/Video from the University of Michigan.

Mr. Lawson was selected to serve on our board of directors because of the perspective and experience he brings as our Chief Executive Officer, one of our founders and as one of our largest stockholders, as well as his extensive experience as an executive with other technology companies.

Khozema Shipchandler. Mr. Shipchandler has served as our Chief Financial Officer since November 2018. From 2015 to 2018, Mr. Shipchandler served as chief financial officer and executive vice president of corporate development at GE Digital, an operational technology and infrastructure software company that is a division of General Electric Company, a publicly traded industrial technology company. From 1996 to 2015, Mr. Shipchandler served in various executive roles at General Electric Company, including as chief financial officer, Middle East, North Africa and Turkey from 2011 to 2013. Mr. Shipchandler holds a B.A. from Indiana University Bloomington.

George Hu. Mr. Hu has served as our Chief Operating Officer since February 2017. From December 2014 to April 2016, Mr. Hu founded and served as Chief Executive Officer at Peer, a workplace feedback startup that was acquired by Twitter in 2016. Prior to that, from November 2011 to December 2014, Mr. Hu served as Chief Operating Officer of Salesforce.com, Inc., a leading provider of enterprise cloud computing applications. From 2001 to 2011, Mr. Hu served in a variety of other management roles at Salesforce.com, Inc., including Vice President of Product Marketing, Senior Vice President of Applications, Executive Vice President of Products, and Chief Marketing Officer. Mr. Hu currently serves as a member of the Board of Directors and Compensation Committee of Yelp Inc. Mr. Hu holds an A.B. in Economics from Harvard College and an M.B.A. from the Stanford Graduate School of Business.

Chee Chew. Mr. Chew has served as our Chief Product Officer since January 2019. From December 2014 to January 2019, Mr. Chew served as Vice President of Consumer Engagement at Amazon.com, Inc., an electronic commerce and cloud computing company. From April 2007 to December 2014, Mr. Chew served in a variety of roles at Google LLC, a multinational technology company that specializes in Internet-related services and products. From June 1993 to April 2007, Mr. Chew served in a variety of

roles at Microsoft Corporation, a technology company that develops, licenses and supports a wide range of software products, services and devices, including as a general manager, software design engineer and developer across Windows, Xbox and mobile device products. He also serves on the Board of Trustees for the Olin College of Engineering. Mr. Chew holds a B.S. and M.S. degree in Computer Science from the Massachusetts Institute of Technology.

Karyn Smith. Ms. Smith has served as our General Counsel since September 2014. From October 2013 to August 2014, Ms. Smith served as Chief Operating Officer and General Counsel at Peek, Aren't You Curious, Inc., a children's clothing company. From January 2013 to August 2013, Ms. Smith served as General Counsel at Meltwater Group Inc., a software-as-a-service company. From August 2009 to June 2012, Ms. Smith served as Vice President and Deputy General Counsel at Zynga Inc., an online video game company. Prior to Zynga, Ms. Smith was a partner at Cooley LLP, a law firm, where she practiced law for 10 years. She currently serves on the boards of the Business Software Alliance, a trade group that represents some of the world's largest software makers, and the United States Telecom Association (USTelecom), a national trade association that represents telecommunications-related businesses based in the United States. Ms. Smith holds a Bachelor of Journalism from the University of Missouri, Columbia and a J.D. from Santa Clara University School of Law.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

This Compensation Discussion and Analysis describes the compensation program for our named executive officers. During the fiscal year ended December 31, 2019, these individuals were:

- Jeff Lawson, our Chief Executive Officer and Chairperson of our Board of Directors;
- Khozema Shipchandler, our Chief Financial Officer;
- George Hu, our Chief Operating Officer;
- Chee Chew, our Chief Product Officer; and
- Karyn Smith, our General Counsel.

This Compensation Discussion and Analysis describes the material elements of our executive compensation program during 2019. It also provides an overview of our executive compensation philosophy and objectives. Finally, it discusses how our compensation committee of our board of directors arrived at the specific compensation decisions for our executive officers, including our named executive officers, for 2019, including the key factors that our compensation committee considered in determining their compensation.

Executive Summary

Business 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.

Fiscal 2019 Performance Highlights

During 2019, we continued to grow revenue and diversify our business and achieved significant financial and operational results:

- We acquired SendGrid, Inc. (“**SendGrid**”), the leading email API platform, in February 2019, adding an important channel for businesses to reach and engage with their customers effectively and at scale;
- We recorded total revenue of \$1.13 billion for the full year, up 75% from the full year 2018 revenue of \$650.1 million. Total revenue includes revenue from Twilio SendGrid starting on February 1, 2019 (the date of the acquisition).
- We recorded a GAAP loss from operations of \$369.8 million for the full year, compared with a GAAP loss from operations of \$115.2 million for the full year 2018. Our non-GAAP loss from operations was \$1.8 million for the full year, compared with a non-GAAP loss from operations of \$4.1 million for the full year 2018; and
- We had more than 179,000 Active Customer Accounts as of December 31, 2019, compared to 64,286 Active Customer Accounts as of December 31, 2018. Active customer accounts as of December 31, 2019 include the contribution from Twilio SendGrid customer accounts.

Please refer to Appendix A of this proxy statement for a more detailed discussion of how we measure Active Customer Accounts and other key business metrics and for a reconciliation of GAAP loss from operations to non-GAAP loss from operations.

Fiscal 2019 Executive Compensation Highlights

Based on our overall operating environment and these results, our compensation committee took the following key actions with respect to the compensation of our named executive officers for 2019:

- **Base Salary**—Approved annual base salary increases for our Chief Financial Officer, Chief Operating Officer and General Counsel as we continue to move the target total cash compensation of our named executive officers (other than our Chief Executive Officer and Chief Product Officer) closer to the market median. At our Chief Executive Officer’s request, our compensation committee did not increase his base salary from its 2018 level. Our Chief Product Officer commenced employment with us in 2019, as discussed below.
- **Long-Term Incentive Compensation**—Granted ongoing long-term incentive compensation opportunities to our named executive officers (other than our Chief Financial Officer and Chief Product Officer) in the form of time-based stock options to purchase shares of our Class A common stock and time-based RSUs that may be settled for shares of our Class A common stock, with aggregate grant date fair values ranging from approximately \$2.9 million to approximately \$11.8 million. Our Chief Financial Officer did not receive any equity awards in 2019, since he received time-based stock options to purchase shares of our Class A common stock and time-based RSUs that may be settled for shares of our Class A common stock in connection with his commencement of employment with us in November 2018. Our Chief Product Officer commenced employment with us in 2019, as discussed below.
- **No Annual Cash Bonus Program**—Since July 1, 2015, we have not maintained a formal annual cash bonus plan for any of our executive officers, including our named executive officers.
- **Appointment of Chief Product Officer**— In 2019, we hired Chee Chew as our Chief Product Officer. Mr. Chew was granted time-based stock options to purchase shares of our Class A common stock and time-based RSUs that may be settled for shares of our Class A common stock, with an aggregate grant date fair value of \$23.2 million. Mr. Chew commenced employment with us on

January 14, 2019. In connection with his appointment, we entered into an employment offer letter with him providing for the following compensation arrangements:

- An initial annual base salary of \$420,000;
- The grant of a time-based stock option to purchase 241,066 shares of our Class A common stock with an exercise price of \$116.30 per share, generally vesting over four years, subject to his continued service relationship with us through each applicable vesting date, and subject further to certain vesting acceleration provisions under the terms and conditions of our Key Executive Severance Plan (as described further in “Potential Payments Upon Termination or Change in Control—Executive Severance Plans” below);
- The grant of time-based RSUs that may be settled for 81,213 shares of our Class A common stock, generally vesting over four years, subject to his continued employment with us through each applicable vesting date, and subject further to certain vesting acceleration provisions under the terms and conditions of our Key Executive Severance Plan; and
- Participation in our Key Executive Severance Plan.

In establishing the compensation arrangements for Mr. Chew, we took into consideration several factors, including (i) the requisite experience and skills that a qualified chief product officer candidate would need to lead and manage a growing business in a dynamic and ever-changing environment, (ii) the competitive market for superior candidates at other comparable companies based on a review of competitive market data, including data drawn from the companies in our compensation peer group, various aspirational companies and selected compensation surveys, (iii) his then-current compensation at his prior employer, including the estimated amount of compensation he would forfeit by accepting employment with us, (iv) the need to integrate our chief product officer into our existing executive compensation structure, balancing both competitive and internal equity considerations as well as his existing compensation package and (v) the analysis of Compensia, our compensation committee’s independent compensation consultant, regarding competitive market data and practices. Following negotiations with Mr. Chew, whom our Chief Executive Officer, compensation committee and our board of directors as a whole, believed was the strongest candidate to help us achieve our short-term and long-term expansion goals, our compensation committee approved Mr. Chew’s compensation arrangements.

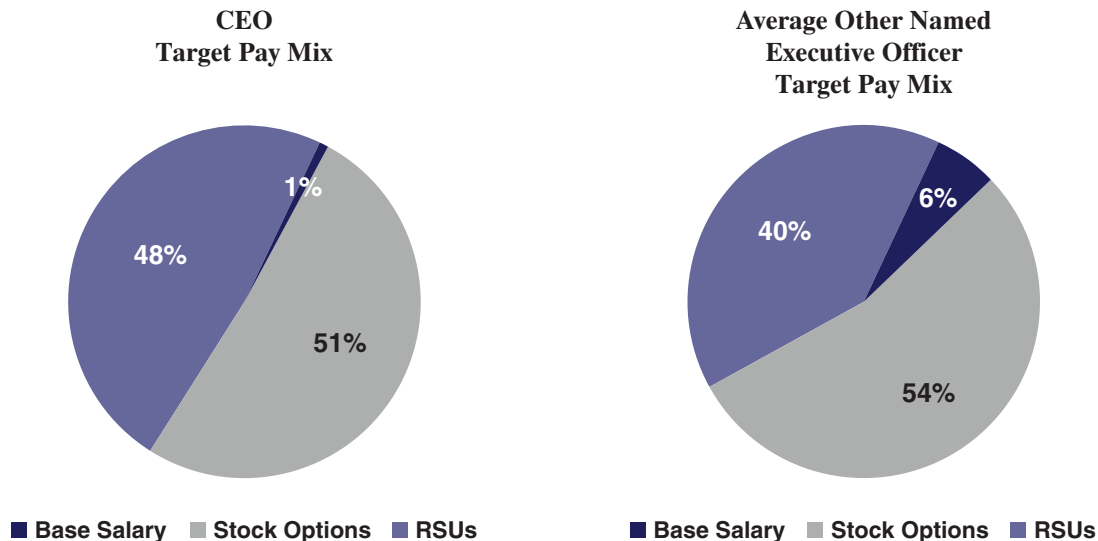
The terms and conditions of the Key Executive Severance Plan and Mr. Chew’s employment offer letter as they relate to his post-employment compensation arrangements are described in the sections titled “Post-Employment Compensation Arrangements”, “Employment Agreements or Offer Letters with Named Executive Officers” and “Potential Payments Upon Termination or Change in Control” below.

Pay-for-Performance Analysis

We believe our executive compensation program is reasonable and competitive, and appropriately balances the goals of attracting, motivating, rewarding and retaining our executive officers with the goal of aligning their interests with those of our stockholders. The annual compensation of our executive officers, including our named executive officers, varies from year to year based on our corporate financial and operational results and individual performance. While we do not determine either “variable” or “fixed” pay for each named executive officer with reference to a specific percentage of target total direct compensation, consistent with our “pay-for-performance” philosophy, our executive compensation program heavily emphasizes “variable” pay over “fixed” pay.

In 2019, the majority of the target total direct compensation of our Chief Executive Officer consisted of variable pay in the form of long-term incentive compensation opportunities. Fixed pay, primarily consisting of base salary, made up only 1% of our Chief Executive Officer’s target total direct compensation, while contingent (“variable”) pay, consisting of long-term incentive compensation in the form of equity awards, made up 99% of his target total direct compensation. Similar allocations applied to

our other executive officers, including our other named executive officers. The following charts show the percentages of target variable pay versus target fixed pay for our Chief Executive Officer and our other named executive officers in 2019:



We believe that this approach provides balanced incentives for our executive officers to drive our financial performance and long-term growth.

Executive Compensation Policies and Practices

We endeavor to maintain sound governance standards consistent with our executive compensation policies and practices. Our compensation committee evaluates our executive compensation program on at least an annual basis to ensure that it is consistent with our short-term and long-term goals given the dynamic nature of our business and the market in which we compete for executive talent. The following summarizes our executive compensation and related policies and practices:

What We Do	What We Don't Do
<p>Use a Pay-for-Performance Philosophy. The majority of our executive officers' target total direct compensation is directly linked to the performance of our stock price.</p>	<p>No Retirement Plans. We do not currently offer pension arrangements, nonqualified deferred compensation arrangements or retirement plans to our executive officers other than a 401(k) retirement plan that is generally available to all our U.S. employees.</p>
<p>Compensation "At-Risk." Our executive compensation program is designed so that a significant portion of our executive officers' target total direct compensation is equity-based, and therefore "at risk," to align the interests of our executive officers and stockholders.</p>	<p>No Short-Term Cash Bonus Program or Guaranteed Bonuses. We do not maintain a formal cash bonus program for our executive officers, nor do we provide guaranteed bonuses to our executive officers.</p>
<p>"Double-Trigger" Change-in-Control Arrangements. With the exception of certain equity awards granted to our Chief Operating Officer, the terms of which were determined through arm's length negotiations at the time of</p>	<p>Limited Perquisites or Other Personal Benefits. We provide limited perquisites and other personal benefits to our executive officers, which, in 2019, consisted of individual supplemental long-term disability insurance,</p>

What We Do	What We Don't Do
<p>hire, all of our post-employment compensation arrangements in the event of a change in control of the Company are “double-trigger” arrangements that require both a change in control of the Company plus a qualifying termination of employment before payments and benefits are paid. All such payments and benefits are also subject to the execution and delivery of an effective release of claims in our favor.</p>	<p>reimbursements for our Chief Executive Officer’s costs incurred in connection with his filing under the Hart-Scott-Rodino Antitrust Improvement Act of 1976 (“HSR”) and related tax gross up and legal fees.</p>
<p>Maintain an Independent Compensation Committee. Our compensation committee consists solely of independent directors.</p>	<p>Limited Tax Payments on Perquisites. We generally do not provide any tax reimbursement payments (including “gross-ups”) on any perquisites or other personal benefits except that we have provided a tax gross-up to our Chief Executive Officer with respect to the income that he recognized as a result of our payment for his HSR filing and related legal fees.</p>
<p>Retain an Independent Compensation Advisor. Our compensation committee has engaged its own independent compensation advisor to provide information, analysis and other advice on executive compensation independent of management.</p>	<p>No Excise Tax Payments on Future Post-Employment Compensation Arrangements. We do not provide any excise tax reimbursement payments (including “gross-ups”) with respect to payments or benefits contingent upon a change in control of our Company.</p>
<p>Annual Executive Compensation Review. Our compensation committee conducts an annual review of our compensation strategy, including a review of our compensation peer group used for comparative purposes.</p>	<p>No Hedging. We prohibit our employees, including our executive officers, and the non-employee members of our board of directors from engaging in hedging transactions or certain derivative transactions relating to our securities.</p>
<p>Annual Compensation-Related Risk Assessment. Our compensation committee reviews, on an annual basis, our compensation-related risk profile.</p>	<p>No Pledging. We prohibit our executive officers and the non-employee members of our board of directors from holding our securities in a margin account or pledging our securities as collateral for a loan.</p>
<p>Stock Ownership Policy. We maintain a stock ownership policy for our Chief Executive Officer, our other named executive officers and the non-employee members of our board of directors.</p>	<p>No Special Welfare or Health Benefits. We do not provide our executive officers with any special welfare or health benefit programs, other than individual supplemental long-term disability insurance, and participation on the same basis as all of our full-time employees in the employee programs that are standard in our industry sector.</p>

Annual Say-on-Pay Vote on Executive Compensation

The compensation committee considered the results of the non-binding stockholder advisory vote on the compensation of our named executive officers conducted at the June 18, 2019 Annual Meeting. As reported in our current report on Form 8-K, filed with the SEC on June 21, 2019, approximately 94.5% of the votes cast on the proposal expressed support for the compensation program offered to our named executive officers as disclosed in last year's proxy statement (the "**Say-on-Pay Vote**"). Accordingly, the compensation committee made no changes to our executive compensation program as a result of the Say-on-Pay Vote. Further, our board of directors has elected to conduct the Say-on-Pay Vote annually, thereby giving our stockholders the opportunity to provide feedback on the compensation of our named executive officers each year. We will be conducting our annual Say-on-Pay Vote as described in Proposal No. 3 of this proxy statement at the 2020 Annual Meeting of Stockholders. Our board of directors and our compensation committee will consider the outcome of the Say-on-Pay Vote, as well as feedback received throughout the year, when making compensation decisions for our named executive officers in the future. The next Say-on-Pay Vote will be held at the 2021 Annual Meeting of Stockholders.

Executive Compensation Philosophy

Our executive compensation program is guided by our overarching philosophy of paying for demonstrable performance and aligning the compensation of our executive officers with the long-term interests of our stockholders. Consistent with this philosophy, we have designed our executive compensation program to achieve the following primary objectives:

- attract, motivate, incentivize and retain employees at the executive level who contribute to our long-term success;
- provide compensation packages to our executive officers that are competitive and reward the achievement of our business objectives; and
- effectively align our executive officers' interests with the interests of our stockholders by focusing on long-term equity incentives that correlate with the growth of sustainable long-term value for our stockholders.

Because we do not have a cash bonus program for our executive officers, generally, our compensation committee has sought to set base salaries at the higher end of the competitive market range to provide what it believes to be reasonable cash compensation levels and will serve to attract and retain our executives. Further, our compensation committee tends to weight the target total direct compensation opportunities of our executive officers more heavily towards equity compensation.

Oversight of Executive Compensation Program

Role of the Compensation Committee

Our compensation committee discharges many of the responsibilities of our board of directors relating to the compensation of our executive officers, including our named executive officers, and the non-employee members of our board of directors (as described further in "Board of Directors and Corporate Governance—Non-Employee Director Compensation" above). Our compensation committee has overall responsibility for overseeing our compensation structure, policies and programs generally, and overseeing and evaluating the compensation plans, policies and practices applicable to our executive officers. Our compensation committee also oversees the annual evaluation of our management for the prior fiscal year and has the authority to retain, and has retained, an independent compensation consultant to provide support to the committee in its review and assessment of our compensation programs.

Compensation-Setting Process

Our compensation committee determines the target total direct compensation opportunities for our executive officers, including our named executive officers. Our compensation committee does not use a

single method or measure in developing its recommendations, nor does it establish one specific target for the total direct compensation opportunities of our executive officers. Rather, it retains flexibility to pay our executive officers within certain ranges. Nonetheless, our compensation committee generally begins its deliberations on cash and equity compensation levels with reference to various percentile levels for cash compensation and target total direct compensation as reflected in competitive market data, with an intended result of weighting compensation more heavily towards equity compensation.

When formulating its recommendations for the amount of each compensation element and approving each compensation element and the target total direct compensation opportunity for our executive officers, our compensation committee considers the following factors:

- our performance against the financial and operational objectives established by our compensation committee and our board of directors;
- our financial performance relative to our compensation peer group;
- the compensation levels and practices of our compensation peer group;
- each individual executive officer's skills, experience and qualifications relative to other similarly situated executives at the companies in our compensation peer group;
- our desire to retain experienced and talented executives in a highly competitive market;
- the scope of each individual executive officer's role compared to other similarly situated executives at the companies in our compensation peer group;
- the performance of each individual executive officer, based on a subjective assessment of his or her contributions to our overall performance, ability to lead his or her business unit or function and ability to work as part of a team, all of which reflect our core values;
- compensation parity among our individual executive officers; and
- the recommendations provided by our Chief Executive Officer with respect to the compensation of our other executive officers.

These factors provide the framework for compensation decision-making and final decisions regarding the compensation opportunity for each executive officer. No single factor is determinative in setting pay levels, nor was the impact of any factor on the determination of pay levels quantifiable. Our compensation committee reviews the base salary levels and long-term incentive compensation opportunities of our executive officers, including our named executive officers, each fiscal year at the beginning of the year, or more frequently as warranted. Long-term incentive compensation is granted on a regularly-scheduled basis, as described in "Other Compensation Policies and Practices—Equity Awards Grant Policy" below.

Role of Chief Executive Officer

In discharging its responsibilities, our compensation committee works with members of our management, including our Chief Executive Officer. Our management assists our compensation committee by providing information on corporate and individual performance, market compensation data and management's perspective on compensation matters. Our compensation committee solicits and reviews our Chief Executive Officer's recommendations and proposals with respect to adjustments to annual cash compensation, long-term incentive compensation opportunities, program structures and other compensation-related matters for our executive officers (other than with respect to his own compensation).

Our compensation committee reviews and discusses these recommendations and proposals with our Chief Executive Officer and considers them as one factor in determining the compensation for our executive officers, including our other named executive officers. Our Chief Executive Officer recuses himself from all determinations regarding his own compensation.

Role of Compensation Consultant

Our compensation committee engages an external independent compensation consultant to assist it by providing information, analysis and other advice relating to our executive compensation program and the decisions resulting from its annual executive compensation review. For 2019, our compensation committee engaged Compensia as its compensation consultant to advise on executive compensation matters, including competitive market pay practices for our executive officers, the selection of our compensation peer group, and data analysis. For 2019, the scope of Compensia's engagement included:

- researching, developing, and reviewing our compensation peer group;
- reviewing and analyzing the compensation for our executive officers, including our named executive officers;
- supporting the design and implementation of changes to our executive long-term incentive strategy;
- reviewing and providing input on the Compensation Discussion and Analysis section of our proxy statement for our 2019 Annual Meeting of Stockholders;
- providing competitive market data and analysis to support the determination of the compensation arrangements for a Chief People Officer;
- reviewing and analyzing the compensation of the non-employee members of our board of directors;
- reviewing short-term incentive compensation practices and considerations;
- reviewing peer group executive incentive compensation practices;
- reviewing our executive compensation philosophy;
- conducting a compensation risk assessment; and
- supporting other *ad hoc* matters throughout the year.

The terms of Compensia's engagement included reporting directly to our compensation committee and to our compensation committee chair. Compensia also coordinated with our management for data collection and job matching for our executive officers and provided data and analyses in connection with the review of our equity strategy. In 2019, Compensia did not provide any other services to us. In March 2019, our compensation committee evaluated Compensia's independence pursuant to the NYSE Listing Standards and the relevant SEC rules and determined that no conflict of interest had arisen as a result of the work performed by Compensia.

Competitive Positioning

For purposes of comparing our executive compensation against the competitive market, our compensation committee reviews and considers the compensation levels and practices of a group of peer companies. This compensation peer group consists of technology companies that are similar to us in terms of industry, revenue and market capitalization.

Our compensation committee reviews our compensation peer group at least annually and makes adjustments to its composition if warranted, taking into account changes in both our business and the businesses of the companies in the peer group, and input from its compensation consultant. Accordingly, the peer group that was used for comparative purposes for 2019 was approved in June 2018.

In developing the compensation peer group for 2019, the following criteria were evaluated in identifying comparable companies:

- similar industry and competitive market for talent;
- within a range of 0.5x to 2.0x of our revenue; and
- within a range of 0.25x to 4.0x of our market capitalization.

Based on the foregoing, the peer group that was approved in June 2018 consisted of the following companies:

Box	Nutanix	ServiceNow
Cornerstone OnDemand	Okta	Splunk
Guidewire Software	Paycom Software	Tableau Software
HubSpot	Paylocity Holding	Veeva Systems
LogMeIn	Proofpoint	Workday
New Relic	RingCentral	Zendesk

In September 2019, the compensation committee reviewed our compensation peer group and, upon the recommendation of its compensation consultant, added Arista Networks, Autodesk, DocuSign, Dropbox, Palo Alto Networks, Shopify, Slack Technologies, VeriSign and Zoom Video Communications to the compensation peer group and removed Box, Cornerstone OnDemand, LogMeIn, Nutanix and Tableau Software. In developing this revised peer group for use in 2020, the following criteria were evaluated in identifying comparable companies:

- similar industry and competitive market for talent;
- within a range of 0.5x to 2.0x of our revenue; and
- within a range of 0.25x to 4.0x of our market capitalization.

Our compensation committee uses data drawn from our compensation peer group, as well as data from the Radford Global Technology executive compensation survey (the “**Radford Survey**”), to evaluate the competitive market when formulating its recommendation for the total direct compensation packages for our executive officers, including base salary and long-term incentive compensation opportunities. The Radford Survey provides compensation market intelligence and is widely used within the technology industry.

In addition, subsets of the Radford Survey were incorporated into the competitive assessment prepared by Compensia and used by our compensation committee to evaluate the compensation of our executive officers. Specifically, our compensation committee received a custom report of survey results reflecting only companies from our compensation peer group in addition to survey results tailored solely based on revenue. The Radford Survey data supplements the compensation peer group data and provides additional information for our named executive officers and other vice president positions for which there is less comparable public data available.

Individual Compensation Elements

In 2019, the principal elements of our executive compensation program, and the purposes for each element, were as follows:

<u>Element</u>	<u>Compensation Element</u>	<u>Objective</u>
Base Salary	Cash	Designed to attract and retain highly talented executives by providing fixed compensation amounts that are competitive in the market and reward performance.
Long-Term Incentives . . .	Equity awards in the form of stock options to purchase shares of our Class A common stock and RSUs that may be settled for shares of our Class A common stock	Designed to align the interests of our executive officers and our stockholders by motivating them to achieve long-term stockholder value creation. Also designed to achieve our retention objectives for our executive officers.

Base Salary

Base salary represents the fixed portion of the compensation of our executive officers, including our named executive officers, and is an important element of compensation intended to attract and retain highly talented individuals.

Using the competitive market data provided by its compensation consultant, our compensation committee reviews and develops recommendations for adjusting the base salaries for each of our executive officers, including our named executive officers, as part of its annual executive compensation review. In addition, the base salaries of our executive officers may be adjusted by our compensation committee in the event of a promotion or significant change in responsibilities.

Generally, our compensation committee sets base salaries with reference to various percentile levels of the competitive range of our compensation peer group and applicable executive compensation survey data. Since our initial public offering, we have evaluated the base salaries of our executive officers in the context of establishing their total cash compensation at levels that are consistent with the target total cash compensation of executive officers holding comparable positions at a public company.

In January 2019, consistent with the recommendation of our Chief Executive Officer, our compensation committee determined to increase the base salaries of certain of our executive officers. In making these decisions, our compensation committee considered the current risks and challenges facing us, our decision to forego the adoption of an annual cash bonus program, its objective of gradually positioning the target total cash compensation of our executive officers at levels that are more consistent with those of a public company in our industry, as well as the factors described in “Oversight of Executive Compensation Program—Compensation-Setting Process” above. In particular, our compensation committee made an 11.8% adjustment in our General Counsel’s base salary to more closely align her salary with market-based salary comparables provided by Compensia, the compensation committee’s compensation consultant, that achieved our desired marketing positioning. We recognize that our Chief Executive Officer’s base salary is significantly lower than the peer group median, despite his success in the role and our willingness to pay him a market-based salary. However, at our Chief Executive Officer’s request, and to weight more of his target total direct compensation to variable pay in the form of long-term incentive compensation, our compensation committee determined to maintain his base salary at its 2018 level, which was lower than the peer group median at the time of the compensation review.

The base salaries of our named executive officers for 2019 were as follows:

<u>Named Executive Officer</u>	<u>2018 Base Salary</u>	<u>2019 Base Salary⁽¹⁾</u>	<u>Percentage Adjustment</u>
Mr. Lawson	\$133,700	\$133,700	—%
Mr. Shipchandler	\$550,000	\$567,000	3.1%
Mr. Hu	\$600,000	\$610,000	1.6%
Mr. Chew ⁽²⁾	\$ —	\$420,000	—%
Ms. Smith	\$415,000	\$464,000	11.8%

(1) These annual base salary adjustments were effective as of January 1, 2019.

(2) Mr. Chew joined us as Chief Product Officer in January 2019 and his base salary was established at that time.

The actual base salaries paid to our named executive officers in 2019 are set forth in the “Summary Compensation Table” below.

Long-Term Incentive Compensation

We view long-term incentive compensation in the form of equity awards as a critical element of our executive compensation program. The realized value of these equity awards bears a direct relationship to

our stock price, and, therefore, these awards are an incentive for our executive officers, including our named executive officers, to create value for our stockholders. Equity awards also help us retain qualified executive officers in a competitive market.

Long-term incentive compensation opportunities in the form of equity awards are granted by our compensation committee on a regularly-scheduled basis, as described in “Other Compensation Policies and Practices—Equity Awards Grant Policy” below. The amount and forms of such equity awards are determined by our compensation committee after considering the factors described in “Oversight of Executive Compensation Program—Compensation-Setting Process” above. The amounts of the equity awards are also intended to provide competitively-sized awards and resulting target total direct compensation opportunities that are competitive with the compensation opportunities offered by the companies in our compensation peer group and Radford Survey data for similar roles and positions for each of our executive officers, taking into consideration the factors described in “Oversight of Executive Compensation Program—Compensation-Setting Process” above.

In January 2019, our compensation committee determined that the equity awards to be granted to our executive officers should be in the form of time-based stock options to purchase shares of our Class A common stock and time-based RSUs that may be settled for shares of our Class A common stock. Our compensation committee determined to grant equity awards in the form of 50% (by fair value) stock options and 50% (by fair value) time-based RSUs. Stock options only have value if our stock price appreciates above the exercise price thereof. Both stock options and RSUs have retention value over the vesting period. In determining the size of the individual grants to our executive officers, our compensation committee considered the factors described in “Oversight of Executive Compensation Program—Compensation-Setting Process” above, with emphasis on our exceptional growth in size and revenue during 2018. In addition, our compensation committee focused on the fact that many of our executive officers are in high demand in the market due, in part, to our excellent performance in 2018. Therefore, our compensation committee considered how best to retain our talent. In determining the size of the equity grants made to our CEO, the compensation committee also factored in Mr. Lawson’s relatively low base salary. After consideration of these factors, our compensation committee determined to grant equity awards to our executive officers with a value above the market median and, in certain cases, close to the 75th percentile of our peer group range. Our compensation committee determined that the value of these awards was appropriate and necessary to sufficiently reward exceptional performance, motivate our executive officers for continued effort to create value for our stockholders and to help ensure retention in a competitive market. Importantly, our compensation committee also determined to deviate from our historic vesting schedules for executive awards to balance the magnitude of the awards, and also to motivate long-term retention and team stability. Therefore, the stock options and RSUs granted to our executive officers vest over four years in three installments, with no vesting until the second anniversary of the vesting commencement date of December 31, 2018 and then in two additional annual installments on the third and fourth anniversaries of such vesting commencement date, subject to the executive’s continued employment with us.

After considering the factors described in “Oversight of Executive Compensation Program—Compensation-Setting Process” above, our compensation committee approved the following equity awards for our then-existing named executive officers in 2019 as part of its annual executive compensation review:

Named Executive Officer	Stock Options to Purchase Shares of Class A Common Stock (number of shares)	Time-Based RSUs (number of shares)	Aggregate Grant Date Fair Value (\$)
Jeff Lawson	110,697	50,942	\$11,739,539
Khozema Shipchandler	—	—	—
George Hu	73,798	33,961	7,826,322
Chee Chew	—	—	—
Karyn Smith	27,060	12,453	\$ 2,869,762

Mr. Shipchandler did not receive an annual equity grant in 2019 since he received equity awards in connection with his commencement of employment with us in November 2018.

Mr. Chew also did not receive an annual equity grant in 2019. Instead, in connection with the appointment of Mr. Chew as our Chief Product Officer in January 2019, he received equity awards as described in the section titled “Executive Summary—Executive Compensation Highlights—Appointment of new Chief Product Officer” above.

Stock Options

We believe that stock options provide a strong reward for growth in the market price of our common stock as their entire value depends on future stock price appreciation, as well as a strong incentive for our executive officers to remain employed with our Company as they require continued service to our Company through the vesting period. In 2019, the stock options to purchase shares of our Class A common stock that were granted by our compensation committee had a 10-year term. To balance retention and incentive dynamics for the 2019 stock option grants, the vesting schedule for such grants were set as follows: 33% of the shares subject to the stock option generally vest on each of the second and third anniversaries of the “vesting commencement date” (December 31, 2018) and 34% of the shares subject to the stock option vest on the fourth anniversary of the vesting commencement date, subject to continued employment through each such vesting date. Stock options granted by our compensation committee to new hires, including Mr. Chew, generally have a 10-year term and generally vest as to 25% of the shares subject to the stock option on the first anniversary of the employment commencement date and 1/48th of the shares subject to the stock option each month thereafter for the following three years, subject to continued service through each such vesting date.

In 2017, we granted performance-based stock options to our Chief Operating Officer in connection with his hiring, pursuant to arms’ length negotiations and our consideration, at his time of hire, of the requisite experience and skills that a qualified Chief Operating Officer candidate for the Company would need, as well as the competitive market for similar positions at other comparable companies. Such performance-based stock options have been structured to align our Chief Operating Officer’s interests with those of our stockholders, as the value of any amounts earned pursuant to such performance-based stock options are directly tied to revenue over a long-term period (at least four years), with a portion vesting over time as well to incentivize retention. To date, we have only granted performance-based stock options to our Chief Operating Officer in connection with his hiring.

Time-Based RSUs

We believe time-based RSUs also provide a strong retention incentive for our executive officers, provide a moderate reward for growth in the value of our common stock and, because they use fewer

shares than stock options, are less dilutive to our stockholders. In 2019, similar to the stock option grants, in order to balance retention and incentive dynamics for the time-based RSU grants that may be settled in shares of our Class A common stock, the vesting schedule for such grants were set as follows: 33% of the shares subject to the award generally vest on each of the second and third anniversaries of the “vesting commencement date” (December 31, 2018) and 34% of the shares subject to the award vest on the fourth anniversary of the vesting commencement date, subject to continued employment through each such vesting date. Time-based RSUs that may be settled in shares of our Class A common stock that were granted by our compensation committee to new hires, including Mr. Chew, generally vest as to 25% of the shares subject to the award on the first anniversary of the first August 15, November 15, February 15 or May 15 to occur following the employment commencement date and 1/16th of the shares subject to the award each quarter thereafter for the following three years, subject to continued employment through each such vesting date.

The equity awards granted to our named executive officers in 2019 are set forth in the “Summary Compensation Table” and the “Grants of Plan-Based Awards Table” below.

Health and Welfare Benefits

Our executive officers, including our named executive officers, are eligible to receive the same employee benefits that are generally available to all our full-time employees, subject to the satisfaction of certain eligibility requirements. These benefits include our medical, dental and vision insurance and life and disability insurance plans. In structuring these benefit plans, we seek to provide an aggregate level of benefits that are comparable to those provided by similar companies.

In addition, we maintain a tax-qualified 401(k) retirement plan that provides eligible U.S. employees with an opportunity to save for retirement on a tax-advantaged basis. Plan participants are able to defer eligible compensation subject to the applicable annual limits set forth in the Internal Revenue Code of 1986, as amended (the “Code”). In 2019, we matched 50% of the first 6% of contributions by plan participants, subject to annual contribution limits set forth in the Code. We have the ability to make discretionary contributions to the 401(k) plan but have not done so to date. The 401(k) plan is intended to be qualified under Section 401(a) of the Code with the plan’s related trust intended to be tax exempt under Section 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan.

Perquisites and Other Personal Benefits

Currently, we do not view perquisites or other personal benefits as a significant component of our executive compensation program. Accordingly, we do not provide significant perquisites or other personal benefits to our executive officers, including our named executive officers, except as generally made available to our employees, or in situations where we believe it is appropriate to assist an individual in the performance of his or her duties, to award long-standing service to us, to make our executive officers more efficient and effective and for recruitment and retention purposes.

For example, in addition to the standard group plan available to all U.S. employees, we pay the premiums for individual supplemental long-term disability insurance for employees who qualify for the plan, including our executive officers and employees above a certain salary threshold. The additional individual supplemental long-term disability insurance benefits we offer provide up to an additional \$5,000 per month per individual and brings the total long-term disability insurance benefit for our executive officers closer to the level of coverage offered to other employees who do not participate in the plan. We terminated these plans for all participants effective July 1, 2019.

During 2019, none of our named executive officers received perquisites or other personal benefits that were, in the aggregate, \$10,000 or more for each individual, except our Chief Executive Officer, for whom we paid his filing fee under HSR, as well as a tax gross-up related to such fee and related legal fees. We

believe that reimbursing our Chief Executive Officer for the HSR filing fee and its related legal fees and tax consequences was consistent with our decision to continue to compensate him almost entirely through equity-compensation arrangements. Absent this regulatory filing, our Chief Executive Officer would not be able to participate in our long-term incentive compensation program and, therefore, we determined that it was appropriate for us to reimburse him for this filing fee and any related tax liabilities.

In the future, we may provide perquisites or other personal benefits in limited circumstances. All future practices with respect to perquisites or other personal benefits will be approved and subject to periodic review by our compensation committee.

Post-Employment Compensation Arrangements

We believe that having in place reasonable and competitive post-employment compensation arrangements are essential to attracting and retaining highly qualified executive officers. We included certain provisions for payments and benefits in the event of a termination of employment, including an involuntary termination of employment in connection with a change in control of our Company, in the initial employment offer letters and equity award agreements with certain of our named executive officers. However, in connection with our initial public offering in 2016, we adopted an executive severance plan (as amended and restated in June 2017, the “**Amended and Restated Executive Severance Plan**”) to provide more standardized severance payments and benefits to our executive officers and to supersede and replace the severance provisions in their employment offer letters or equity award agreements, if any, with payments and benefits that are aligned with competitive market practices as reflected by our compensation peer group. In March 2018, we divided our Amended and Restated Executive Severance Plan into three separate plans which apply to our Chief Executive Officer (the “**CEO Severance Plan**”), our key executive officers (the “**Key Executive Severance Plan**”, together with our CEO Severance Plan, the “**Executive Severance Plans**”) and vice president-level employees (the “**VP Severance Plan**”). Our Chief Executive Officer participates in the CEO Severance Plan and our other named executive officers participate in the Key Executive Severance Plan.

The Executive Severance Plans, as discussed in more detail in “Potential Payments Upon Termination or Change in Control—Executive Severance Plans” below are designed to help ensure the continued service of key executive officers in the event of a potential acquisition, to provide reasonable compensation to executive officers who leave our employ under specified circumstances and to align the interests of our executive officers and our stockholders when considering our long-term future.

We believe that the severance payments and benefits provided to our executive officers under the Executive Severance Plans (and for our Chief Operating Officer, the Key Executive Severance Plan and his negotiated employment offer letter) are appropriate in light of the post-employment compensation protections available to similarly-situated executive officers at companies in our compensation peer group and are an important component of each executive officer’s overall compensation as they help us to attract and retain our key executives who could have other job alternatives that may appear to them to be more attractive absent these protections.

We also believe that the occurrence or potential occurrence of a change in control transaction will create uncertainty regarding the continued employment of our executive officers. In order to encourage them to remain employed with us during an important time when their prospects for continued employment following the transaction are often uncertain, we provide our executive officers with the opportunity to receive additional severance protections during a change in control protection period. In addition, we provide additional payment and benefit protections if an executive officer voluntarily terminates employment with us for good reason in connection with a change in control of our Company, because we believe that a voluntary termination of employment for good reason is essentially equivalent to an involuntary termination of employment by us without cause. The primary purpose of these arrangements is to keep our most senior executive officers focused on pursuing potential corporate

transactions that are in the best interests of our stockholders regardless of whether those transactions may result in their own job loss. Reasonable post-acquisition payments and benefits should serve the interests of both the executive officer and our stockholders.

To protect our Company's interests, we require all participants of the Executive Severance Plans to sign a standard form of release prior to receiving any severance payments or benefits under the applicable plan.

In addition, except with respect to the equity awards granted to our Chief Operating Officer in connection with his negotiated employment offer letter, under the Executive Severance Plans, all payments and benefits provided in the event of a change in control of the Company are payable only if there is a qualifying loss of employment by a named executive officer (commonly referred to as a "double-trigger" arrangement). In the case of the acceleration of vesting of outstanding equity awards, we use this double-trigger arrangement to protect against the loss of retention value following a change in control of the Company and to avoid windfalls, both of which could occur if the vesting of equity awards accelerated automatically as a result of the transaction.

As a result of arm's length negotiations at the time of hire, a portion of our Chief Operating Officer's performance-based stock options vest automatically in the event of a change in control of our Company. Specifically, if the conditions applicable to a performance-based stock option are satisfied, then the stock option will immediately vest with respect to 50% of the shares subject thereto and will thereafter vest in equal monthly installments over 24 months with respect to the remaining shares subject thereto, in each case, subject to our Chief Operating Officer's continued employment with us through each applicable vesting date.

We do not provide excise tax payments (or "gross-ups") relating to a change in control of our Company and have no such obligations in place with respect to any of our named executive officers.

For detailed descriptions of the post-employment compensation arrangements we maintain with our named executive officers, as well as an estimate of the potential payments and benefits payable to our named executive officers under their post-employment compensation arrangements, see "Employment Agreements or Offer Letters with Named Executive Officers" and "Potential Payments Upon Termination or Change in Control" below.

Other Compensation Policies and Practices

Equity Awards Grant Policy

Under our Amended and Restated Equity Award Grant Policy, we generally grant equity awards on a regularly scheduled basis to enhance the effectiveness of our internal control over our equity award grant process and to alleviate several of the burdens related to accounting for such equity awards, as follows:

- Any grants of equity awards made in conjunction with the hiring of a new employee or the promotion of an existing employee will be made, if at all, regularly (either monthly or quarterly) and will be effective on the date such grant is approved by our board of directors or our compensation committee or such future date as is approved by our board of directors or our compensation committee. In no event will the effective date of an equity award made in conjunction with the hiring of a new employee precede the first date of employment.
- Any grants of equity awards to existing employees (other than in connection with a promotion) will generally be made, if at all, on an annual or quarterly basis. Any such annual or quarterly grant will be effective on the date on which such grant is approved or such future date as is approved by our board of directors or our compensation committee.

- All equity awards will be priced on the effective date of the award. The exercise price of all stock options will be equal to the closing market price on The New York Stock Exchange of one share of our Class A common stock on the effective date of grant, or, if no closing price is reported for such date, the closing price on the next immediately following date for which a closing price is reported. If the grant of restricted stock or of RSUs is denominated in dollars, the number of shares of restricted stock or RSUs that are granted will generally be calculated by dividing the dollar value of the approved award by the average closing market price on The New York Stock Exchange of one share of our Class A common stock over the trailing 30-day period ending (i) five business days immediately prior to the effective date of grant for grants made pursuant to offer letters or award letters issued April 1, 2019 or later or (ii) on the last day of the month immediately prior to the month of the grant date for grants made pursuant to offer letters or award letters issued prior to April 1, 2019, with such total number of shares to be granted per recipient rounded up to the nearest whole share.
- Our board of directors or our compensation committee may delegate to a committee comprised of at least two of our executive officers all or part of the authority with respect to the granting of certain equity awards to employees (other than to such delegates), subject to certain limitations and requirements. Our board of directors and compensation committee have currently delegated authority to a subcommittee consisting of our Chief Financial Officer and General Counsel to grant, without any further action required by the compensation committee, equity awards to employees who are not officers or vice presidents. The purpose of this delegation of authority is to enhance the flexibility of equity award administration and to facilitate the timely grant of equity awards to non-management employees, particularly new employees, within specified limits approved from time to time by the compensation committee. As part of its oversight function, the compensation committee will review the list of grants made by the subcommittee at each regularly scheduled in-person meeting. During 2019, this subcommittee did not exercise its authority to grant any equity awards to non-officer or vice president-level employees.

Policy Prohibiting Hedging and Pledging of Equity Securities

Our Amended and Restated Insider Trading Policy prohibits our employees, including our executive officers, and the non-employee members of our board of directors from engaging in any short sale and from buying or selling puts, calls, other derivative securities or any derivative securities that provide the economic equivalent of ownership of any of our Company's securities or an opportunity, direct or indirect, to profit from any change in the value of our securities or engage in any other hedging transaction with respect to our securities, at any time. In addition, our Insider Trading Policy prohibits our employees, including our executive officers, and the non-employee members of our board of directors from using our securities as collateral in a margin account or from pledging our securities as collateral for a loan.

Stock Ownership Policy

To further align the interests of our executive officers with those of our stockholders and to promote a long-term perspective in managing our Company, in April 2018, we adopted a stock ownership policy for our Chief Executive Officer and executive officers subject to Section 16 of the Exchange Act ("**Section 16 Officers**"), including each of our named executive officers. Our stock ownership policy requires each named executive officer to acquire and hold the lesser of (i) a number of shares of our common stock equal in value to a multiple of such named executive officer's annual base salary or (ii) 48,500 shares of our common stock for our Chief Executive Officer and 15,500 shares of our common stock for our other named executive officers, in each case, until he or she ceases to be our Chief Executive Officer or a Section 16 Officer, as applicable. The multiple for our Chief Executive Officer is four times his annual base salary and the multiple for our other named executive officers is one times his or her annual base salary. For purposes of our stock ownership policy, we only count directly and beneficially owned shares, including shares purchased through our ESPP or 401(k) Plan, if applicable, shares underlying vested RSUs that are

held or deferred and shares underlying vested and unexercised in-the-money stock options. Each named executive officer has three years from the later of his or her designation as our Chief Executive Officer or Section 16 Officer, as applicable, or from the effective date of the policy to obtain the required ownership level.

Compensation Recovery Policy

We intend to adopt a compensation recovery (“**clawback**”) policy once the SEC adopts final rules implementing the requirement of Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. In deciding to wait to adopt such a policy, our compensation committee considered the facts that we currently do not have a performance-based cash incentive plan for our executives and our only outstanding performance-based equity incentive awards are those granted to our Chief Operating Officer in 2017.

Tax and Accounting Considerations

Deductibility of Executive Compensation

Generally, Section 162(m) of the Code (“**Section 162(m)**”) disallows a federal income tax deduction for public corporations of remuneration in excess of \$1 million paid in any fiscal year to certain specified executive officers. For taxable years beginning before January 1, 2018 (i) these executive officers consisted of a public corporation’s chief executive officer and up to three other executive officers (other than the chief financial officer) whose compensation is required to be disclosed to stockholders under the Exchange Act because they are our most highly-compensated executive officers and (ii) qualifying “performance-based compensation” was not subject to this deduction limit if specified requirements are met.

Pursuant to the Tax Cuts and Jobs Act of 2017, which was signed into law on December 22, 2017 (the “**Tax Act**”), for taxable years beginning after December 31, 2017, the remuneration of a public corporation’s chief financial officer is also subject to the deduction limit. In addition, subject to certain transition rules (which apply to remuneration provided pursuant to written binding contracts which were in effect on November 2, 2017 and which are not subsequently modified in any material respect), for taxable years beginning after December 31, 2017, the exemption from the deduction limit for “performance-based compensation” is no longer available. In addition, under the Tax Act, once an executive becomes a “covered employee” under Section 162(m), the individual will continue to be a “covered employee” as long as he or she remains employed by the company. Consequently, for fiscal years beginning after December 31, 2017, all remuneration in excess of \$1 million paid to a covered executive will not be deductible unless it qualifies for transitional relief applicable to certain binding, written performance-based compensation arrangements that were in place as November 2, 2017 or transitional relief applicable to certain newly public companies. These changes will cause more of our compensation to be non-deductible under Section 162(m) in the future and will eliminate the Company’s ability to structure performance-based awards to be exempt from Section 162(m).

In designing our executive compensation program and determining the compensation of our executive officers, including our named executive officers, our compensation committee considers a variety of factors, including the potential impact of the Section 162(m) deduction limit. While our compensation committee is mindful of the benefit of the full deductibility of compensation, it believes that we should not be constrained by the requirements of Section 162(m) where those requirements would impair our flexibility in compensating our executive officers in a manner that can best promote our corporate objectives. Therefore, our compensation committee has not adopted a policy that would require that all compensation be deductible, though it does consider the deductibility of compensation when making compensation decisions. Our compensation committee may authorize compensation payments that are not fully tax deductible if it believes that such payments are appropriate to attract and retain executive talent or meet other business objectives.

Taxation of “Parachute” Payments

Sections 280G and 4999 of the Code provide that executive officers and directors who hold significant equity interests and certain other service providers may be subject to significant additional taxes if they receive payments or benefits in connection with a change in control of the Company that exceeds certain prescribed limits, and that the Company (or a successor) may forfeit a deduction on the amounts subject to this additional tax. We have not agreed to provide any executive officer, including any named executive officer, with a “gross-up” or other reimbursement payment for any tax liability that the executive officer might owe as a result of the application of Sections 280G or 4999 of the Code.

Section 409A of the Internal Revenue Code

Section 409A of the Code imposes additional significant taxes in the event that an executive officer, director or service provider receives “deferred compensation” that does not satisfy the requirements of Section 409A of the Code. Although we do not maintain a traditional nonqualified deferred compensation plan for our executive officers, Section 409A of the Code does apply to certain severance arrangements, bonus arrangements and equity awards, and we have structured all such arrangements and awards in a manner to either avoid or comply with the applicable requirements of Section 409A of the Code. For our non-employee directors, we provide a Non-Employee Directors’ Deferred Compensation Program, which has been structured to comply with the applicable requirements of Section 409A of the Code.

Accounting for Stock-Based Compensation

We follow the Financial Accounting Standard Board’s Accounting Standards Codification Topic 718 (“**FASB ASC Topic 718**”) for our stock-based compensation awards. FASB ASC Topic 718 requires us to measure the compensation expense for all share-based payment awards made to our employees and non-employee members of our board of directors, including options to purchase shares of our common stock and other stock awards, based on the grant date “fair value” of these awards. This cost is recognized as an expense following the straight-line attribution method over the requisite service period. This calculation is performed for accounting purposes and reported in the executive compensation tables required by the federal securities laws, even though the recipient of the awards may never realize any value from such awards.

Compensation Risk Assessment

In consultation with management and Compensia, our compensation committee’s independent compensation consultant, in March 2020, our compensation committee assessed our compensation plans, policies and practices for named executive officers and other employees and concluded that they do not create risks that are reasonably likely to have a material adverse effect on us. This risk assessment included, among other things, a review of our cash and equity incentive-based compensation plans to ensure that they are aligned with our performance goals and overall target total direct compensation to ensure an appropriate balance between fixed and variable pay components. Our compensation committee conducts this assessment annually.

Summary Compensation Table

The following table provides information regarding the total compensation, for services rendered in all capacities, that was paid to or earned by our named executive officers during the fiscal years ended December 31, 2017, 2018 and 2019.

Name and principal position	Year	Salary (\$)	Bonus (\$)	Stock awards (\$) ⁽¹⁾	Option awards (\$) ⁽²⁾	Non-equity incentive compensation (\$)	All other compensation (\$)	Total (\$)
Jeff Lawson <i>Chief Executive Officer and Chairperson</i>	2019	133,700	—	5,670,863	6,068,675	—	419,338 ⁽³⁾	12,292,576
	2018	131,129	—	3,360,253	3,102,615	—	3,959 ⁽⁴⁾	6,597,956
	2017	133,700	—	2,789,181	2,499,093	—	204,427 ⁽⁵⁾	5,626,401
Khozema Shipchandler ⁽⁶⁾ <i>Chief Financial Officer</i>	2019	567,000	—	—	—	—	7,000 ⁽³⁾	574,000
	2018	78,269	—	8,497,118	5,694,608	—	2,500 ⁽⁴⁾	14,272,495
George Hu <i>Chief Operating Officer</i>	2019	610,000	—	3,780,539	4,045,783	—	7,696 ⁽³⁾	8,444,018
	2018	588,462	—	4,766,442	1,466,263	—	3,891 ⁽⁴⁾	6,825,058
	2017	502,308	—	3,172,000	17,691,850	—	29,143 ⁽⁵⁾	21,395,301
Chee Chew ⁽⁷⁾ <i>Chief Product Officer</i>	2019	395,769	—	9,445,072	13,787,047	—	7,000 ⁽³⁾	23,634,888
Karyn Smith <i>General Counsel</i>	2019	464,000	—	1,386,268	1,483,494	—	8,776 ⁽³⁾	3,342,538
	2018	407,020	—	1,016,345	938,409	—	4,416 ⁽⁴⁾	2,366,190
	2017	400,000	125,000 ⁽⁸⁾	1,004,087	899,667	—	4,716 ⁽⁵⁾	2,433,470

- (1) The amounts reported in this column represent the aggregate grant date fair value of the RSUs awarded to the named executive officers in the fiscal years ended December 31, 2017, December 31, 2018 and December 31, 2019, as applicable, calculated in accordance with FASB ASC Topic 718. Such aggregate grant date fair values do not take into account any estimated forfeitures related to service-vesting conditions. The valuation assumptions used in determining such amounts are described in the Notes to our Consolidated Financial Statements included in our Annual Report on Form 10-K filed with the SEC on March 2, 2020. The amounts reported in this column reflect the accounting cost for the RSUs and do not correspond to the actual economic value that may be received by the named executive officers upon the vesting or settlement of the RSUs.
- (2) The amounts reported in this column represent the aggregate grant date fair value of the stock options awarded to the named executive officer in the fiscal years ended December 31, 2017, December 31, 2018 and December 31, 2019, as applicable, calculated in accordance with FASB ASC Topic 718. Such aggregate grant date fair values do not take into account any estimated forfeitures related to service-vesting conditions. The valuation assumptions used in determining such amounts are described in the Notes to our Consolidated Financial Statements included our Annual Report on Form 10-K filed with the SEC on March 2, 2020. The amounts reported in this column reflect the accounting cost for these stock options and do not correspond to the actual economic value that may be received by the named executive officers upon exercise of the stock options or sale of the shares of common stock underlying such stock options. The amount reported for Mr. Hu for 2017 includes the aggregate grant date fair value of his performance-based stock options, which was \$5,947,750, based upon the probable outcome of the applicable performance conditions, which was determined to be the maximum performance outcome.
- (3) For Mr. Lawson, consists of a reimbursement from the Company for a \$280,000 filing fee incurred under HSR related to Mr. Lawson's stock ownership, \$6,723 and \$128,517, respectively, for the related legal fees and tax gross-up, \$730 for supplemental long-term disability insurance premiums, as well as \$3,368 for our Company's matching contributions to his 401(k) account in 2019. For Mr. Shipchandler, consists of \$7,000 for our Company's matching contributions to his 401(k) account in 2019. For Mr. Hu, consists of \$696 for supplemental long-term disability insurance premiums, as well as \$7,000 for our Company's matching contributions to his 401(k) account in 2019. For Mr. Chew, consists of \$7,000 for our Company's matching contributions to his 401(k) account in 2019. For Ms. Smith, consists of \$958 for supplemental long-term disability insurance premiums, as well as \$7,818 for our Company's matching contributions to her 401(k) account in 2019.
- (4) For Mr. Lawson, consists of \$1,459 for supplemental long-term disability insurance premiums, as well as \$2,500 for our Company's matching contributions to his 401(k) account in 2018. For Mr. Shipchandler, consists of \$2,500 for our Company's matching contributions to his 401(k) account. For Mr. Hu, consists of \$1,391 for supplemental long-term

disability insurance premiums, as well as \$2,500 for our Company's matching contributions to his 401(k) account in 2018. For Ms. Smith, consists of \$1,916 for supplemental long-term disability insurance premiums, as well as \$2,500 for our Company's matching contributions to her 401(k) account in 2018.

- (5) For Mr. Lawson, consists of a reimbursement from the Company for a \$125,000 filing fee incurred under HSR related to Mr. Lawson's stock ownership and \$75,256 for the related tax gross-up, \$1,670 for supplemental long-term disability insurance premiums, as well as \$2,500 for our Company's matching contributions to his 401(k) account in 2017. For Mr. Hu, consists of a reimbursement from our Company for \$25,000 for legal fees incurred in connection with the negotiation of his employment offer letter, \$1,643 for supplemental long-term disability insurance premiums, as well as \$2,500 for our Company's matching contributions to his 401(k) account in 2017. For Ms. Smith, consists of \$2,500 for our Company's matching contributions to her 401(k) account in 2017 as well as \$2,216 for supplemental long-term disability insurance premiums in 2017.
- (6) Mr. Shipchandler was appointed as our Chief Financial Officer on November 12, 2018 and was therefore not a named executive officer for 2017. Mr. Shipchandler's 2018 base salary was pro-rated to his employment start date.
- (7) Mr. Chew was appointed as our Chief Product Officer on January 14, 2019 and was therefore not a named executive officer for 2018 and 2017. Mr. Chew's 2019 base salary was pro-rated to his employment start date.
- (8) In June 2017, Ms. Smith received a special, one-time cash bonus in recognition of her services and contributions to us as our interim Chief People Officer during the period between May 2016 to June 2017.

Grants of Plan-Based Awards Table

The following table sets forth certain information with respect to all plan-based awards granted to our named executive officers during the fiscal year ended December 31, 2019.

Name	Type of Award	Grant Date	Estimated Future Payouts Under Equity Incentive Plan Awards ⁽¹⁾			All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/sh)	Grant Date Fair Value of Stock and Option Awards (\$) ⁽¹⁾
			Threshold (\$)	Target (\$)	Maximum (\$)				
Jeff Lawson	Time-Based Stock Option	1/31/2019	—	—	—	—	110,697 ⁽²⁾	111.32	6,068,675
	Time-Based RSUs	1/31/2019	—	—	—	50,942 ⁽³⁾	—	—	5,670,863
Khozema Shipchandler ⁽⁴⁾	Time-Based Stock Option	—	—	—	—	—	—	—	—
	Time-Based RSUs	—	—	—	—	—	—	—	—
George Hu	Time-Based Stock Option	1/31/2019	—	—	—	—	73,798 ⁽²⁾	111.32	4,045,783
	Time-Based RSUs	1/31/2019	—	—	—	33,961 ⁽³⁾	—	—	3,780,539
Chee Chew ⁽⁵⁾	Time-Based Stock Option	2/20/2019	—	—	—	—	241,066 ⁽²⁾	116.30	13,787,047
	Time-Based RSUs	2/20/2019	—	—	—	81,213 ⁽³⁾	—	—	9,445,072
Karyn Smith	Time-Based Stock Option	1/31/2019	—	—	—	—	27,060 ⁽²⁾	111.32	1,483,494
	Time-Based RSUs	1/31/2019	—	—	—	12,453 ⁽³⁾	—	—	1,386,268

- (1) The amounts reported in this column represent the aggregate grant date fair value of the RSUs and stock options, as applicable, granted to the named executive officer in the fiscal year ended December 31, 2019, calculated in accordance with FASB ASC Topic 718. Such aggregate grant date fair values do not take into account any estimated forfeitures related to service-vesting conditions. The valuation assumptions used in determining such amounts are described in the Notes to our Consolidated Financial Statements included in our Annual Report on Form 10-K filed with the SEC on March 2, 2020. The amounts reported in this column reflect the accounting cost for these RSUs and stock options, as applicable, and do not correspond to the actual economic value that may be received by the named executive officers upon the vesting or settlement of the RSUs or the exercise of the stock options or sale of the shares of common stock underlying such stock options, as applicable.
- (2) The stock options are subject to time-based vesting, as described in the footnotes to the "Outstanding Equity Awards at Fiscal Year-End Table" below.
- (3) The RSUs are subject to time-based vesting, as described in the footnotes to the "Outstanding Equity Awards at Fiscal Year-End Table" below.
- (4) Mr. Shipchandler did not receive an annual equity award in 2019 since he was granted equity awards in connection with his commencement of employment with us in November 2018.
- (5) Mr. Chew was appointed as our Chief Product Officer on January 14, 2019 and received new hire equity awards in connection with his commencement of employment with us.

Outstanding Equity Awards at Fiscal Year-End Table

The following table sets forth information regarding outstanding equity awards held by our named executive officers as of December 31, 2019. Except as described below, all stock options and RSUs are subject to certain vesting acceleration provisions as provided in the applicable Executive Severance Plan (and for our Chief Operating Officer, in such plan as well as his employment offer letter).

Name	Grant date	Option Awards ⁽¹⁾⁽²⁾				Stock Awards ⁽¹⁾⁽²⁾		
		Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Equity incentive plan awards: number of securities underlying unexercised unearned options (#)	Option exercise price (\$) ⁽³⁾	Option expiration date	Number of shares or units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (\$) ⁽⁴⁾
Jeff Lawson <i>Chief Executive Officer and Chairperson</i>	12/31/2015	316,667 ⁽⁵⁾	—	—	10.09	12/30/2025	—	—
	2/10/2017	119,502	44,388 ⁽⁶⁾	—	31.96	2/9/2027	—	—
	2/20/2018	93,311	110,278 ⁽⁷⁾	—	33.01	2/19/2028	—	—
	1/31/2019	—	110,697 ⁽⁸⁾	—	111.32	1/30/2029	—	—
	2/4/2016	—	—	—	—	—	11,875 ⁽⁹⁾	\$1,167,075
	2/10/2017	—	—	—	—	—	25,457 ⁽¹⁰⁾	\$2,501,914
	2/20/2018	—	—	—	—	—	57,260 ⁽¹¹⁾	\$5,627,513
	1/31/2019	—	—	—	—	—	50,942 ⁽¹²⁾	\$5,006,580
Khozema Shipchandler ⁽¹⁰⁾ <i>Chief Financial Officer</i>	11/01/2018	43,333	116,667 ⁽¹³⁾	—	76.63	10/31/2028	—	—
	11/01/2018	—	—	—	—	—	83,163 ⁽¹⁴⁾	\$8,173,260
George Hu <i>Chief Operating Officer</i>	2/28/2017	423,900	262,500 ⁽¹⁵⁾	—	31.72	2/27/2027	—	—
	2/28/2017	427,812	127,188 ⁽¹⁶⁾	—	31.72	2/27/2024	—	—
	2/20/2018	44,098	52,116 ⁽⁷⁾	—	33.01	2/19/2028	—	—
	1/31/2019	—	73,798 ⁽⁸⁾	—	111.32	1/30/2029	—	—
	2/28/2017	—	—	—	—	—	31,250 ⁽¹⁷⁾	\$3,071,250
	2/20/2018	—	—	—	—	—	54,121 ⁽¹¹⁾	\$5,319,012
Chee Chew <i>Chief Product Officer</i>	2/21/2018	—	—	—	—	—	27,061 ⁽¹¹⁾	\$2,659,555
	1/31/2019	—	—	—	—	—	33,961 ⁽¹²⁾	\$3,337,687
	2/20/2019	—	241,066 ⁽¹⁸⁾	—	116.30	2/19/2029	—	—
	2/20/2019	—	—	—	—	—	81,213 ⁽¹⁹⁾	\$7,981,614
Karyn Smith <i>General Counsel</i>	10/29/2014	16,543 ⁽²⁰⁾	—	—	4.73	10/28/2024	—	—
	12/31/2015	10,957 ⁽⁵⁾	—	—	10.09	12/30/2025	—	—
	2/10/2017	—	15,980 ⁽⁶⁾	—	31.96	2/9/2027	—	—
	2/20/2018	—	33,355 ⁽⁷⁾	—	33.01	2/19/2028	—	—
	1/31/2019	—	27,060 ⁽⁸⁾	—	111.32	1/30/2029	—	—
	2/4/2016	—	—	—	—	—	1,880 ⁽⁹⁾	\$ 184,766
	2/10/2017	—	—	—	—	—	9,165 ⁽¹⁰⁾	\$ 900,736
2/20/2018	—	—	—	—	—	17,319 ⁽¹¹⁾	\$1,702,111	
1/31/2019	—	—	—	—	—	12,453 ⁽¹²⁾	\$1,223,881	

- (1) Equity awards granted prior to June 21, 2016 were granted pursuant to our 2008 Stock Option Plan (as amended and restated, the “2008 Plan”). Each stock option under the 2008 Plan is immediately exercisable. To the extent a named executive officer exercises his or her 2008 Plan stock options prior to vesting, the shares of our common stock that he or she will receive will be unvested and subject to the Company’s right of repurchase, which will lapse in accordance with the original vesting schedule of the stock option. No named executive officer has early exercised his or her stock options. Equity awards granted on or after June 21, 2016 were granted pursuant to our 2016 Stock Option and Incentive Plan (as amended from time to time, the “2016 Plan”).
- (2) Unless otherwise described in the footnotes below, the vesting of each equity award on a vesting date is subject to the applicable named executive officer’s continued service to (if granted under the 2008 Plan) or continued employment with (if granted under the 2016 Plan) the Company through such vesting date.
- (3) This column represents the fair market value of a share of our common stock on the date of the grant, as determined by the administrator of our 2008 Plan or 2016 Plan, as applicable.
- (4) This column represents the aggregate fair market value of the shares underlying the RSUs as of December 31, 2019, based on the closing price of our Class A common stock, as reported on The New York Stock Exchange, of \$98.28 per share on December 31, 2019. These values assume that the fair market value of the Class B common stock underlying certain of the RSUs, which is not listed or approved for trading on or with any securities exchange or association, is equal to the fair market value of our Class A common stock.
- (5) The option has fully vested.
- (6) The shares subject to the stock option vest as follows: 1/4th of the shares vested on January 1, 2018 and 1/48th of the shares vest monthly thereafter.
- (7) The shares subject to the stock option vest as follows: 1/48th of the shares vested on March 15, 2018 and the remaining shares subject to the option vest in equal monthly installments over the following four years.
- (8) The shares subject to the stock option vest as follows: 33% of the shares subject to the stock option vest on December 31, 2020, 33% of the shares subject to the stock option vest on December 31, 2021 and 34% of the shares subject to the stock option vest on December 31, 2022.

- (9) The RSUs vest in 16 equal quarterly installments following January 15, 2016.
- (10) The RSUs vest as follows: 13/48 of the RSUs vested on February 15, 2018, after which 1/16 of the RSUs vest quarterly for the next 11 quarters, with 1/24 of the RSUs vesting in the next quarter thereafter.
- (11) The RSUs vest as follows: 1/16th of the RSUs vested on May 15, 2018 and 1/16 of the RSUs vest quarterly for the next 15 quarters on August 15, November 15, February 15 and May 15, as applicable.
- (12) The RSUs vest as follows: 33% of the RSUs shall vest on December 31, 2020, 33% of the RSUs shall vest on December 31, 2021 and 34% of the RSUs shall vest on December 31, 2022.
- (13) The shares subject to the stock option vest as follows: 25% of the shares subject to the stock option vested on November 1, 2019, and the remaining shares subject to the stock option vest in equal monthly installments over the following three years.
- (14) The RSUs vest as follows: 25% of the RSUs vested on November 15, 2019 and the remaining RSUs vest in equal quarterly installments over the following three years, in each case on February 15, May 15, August 15 and November 15, as applicable.
- (15) The shares subject to the stock option vest as follows: 25% of the shares vested on February 28, 2018 and the remaining shares vest in equal monthly installments over the following three years.
- (16) Consists of three performance-based stock options, each to purchase 185,000 shares of our Class A common stock. As of December 31, 2019, Mr. Hu had satisfied all three pre-established performance-based target levels tied to the Company's revenue by the specified dates and 50% of the shares subject to each stock option were vested. The remaining 50% of the share subject to each stock option vest thereafter in 24 equal monthly installments.
- (17) The RSUs vest as follows: 25% of the RSUs vested on February 28, 2018 and the remaining RSUs vest in equal quarterly installments over the following three years, in each case on May 15, August 15, November 15 and February 15, as applicable.
- (18) The stock option vests as follows: 25% of the shares subject to the option vest on January 14, 2020 and the remaining shares subject to the option vest in equal monthly installments over the following three years.
- (19) The RSUs vest as follows: 13/48 of the RSUs vest on February 15, 2020, after which 1/16th of the RSUs vest quarterly for the next 11 quarters, with 1/24th of the RSUs vesting in the next quarter thereafter.
- (20) The option has fully vested.

Option Exercises and Stock Vested Table

The following table presents, for each of our named executive officers, the shares of our common stock that were acquired upon the exercise of stock options and vesting of RSUs and the related value realized during the fiscal year ending December 31, 2019.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$) ⁽¹⁾⁽²⁾	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$) ⁽¹⁾⁽³⁾
Jeff Lawson	—	—	94,767	11,176,374
Khozema Shipchandler	—	—	27,722	2,719,805
George Hu	25,600	1,858,018	61,079	7,042,596
Chee Chew	—	—	—	—
Karyn Smith	227,588	25,234,207	23,068	2,699,252

- (1) These values assume that the fair market value of the Class B common stock underlying certain of the stock options and RSUs, which is not listed or approved for trading on or with any securities exchange or association, is equal to the fair market value of our Class A common stock. Each share of Class B common stock is convertible into one share of Class A Common Stock at any time at the option of the holder or upon certain transfers of such shares.
- (2) The aggregate value realized upon the exercise of a stock option represents the difference between the aggregate market price of the shares of our Class A common stock or Class B common stock (which is assumed to be equal to our Class A common stock as described in footnote (1) above), as applicable, exercised on the date of exercise and the aggregate exercise price of the stock option.
- (3) The aggregate value realized upon the vesting and settlement of the RSUs represents the aggregate market price of the shares of our Class A common stock or Class B common stock (which is assumed to be equal to our Class A common stock as described in footnote (1) above), as applicable, that vested on the date of settlement.

Employment Agreements or Offer Letters with Named Executive Officers

Prior to our initial public offering, we initially entered into employment offer letters with each of our named executive officers, except for our Chief Executive Officer, in connection with his or her employment with us, which set forth the terms and conditions of employment of each individual, including

his or her initial base salary, initial target annual bonus opportunity and standard employee benefit plan participation. In addition, these employment offer letters provided for certain payments and benefits in the event of an involuntary termination of employment following a change in control of the Company. In connection with our initial public offering, we adopted an executive severance plan, which was subsequently amended and restated and divided into three separate plans (i.e., the Executive Severance Plans and the VP Severance Plan), in order to provide more standardized severance benefits to our named executive officers and to supersede and replace any existing severance arrangements with payments and benefits that were aligned with our peer group practices. For named executive officers hired after our initial public offering, we did not provide for any severance or change in control payments or benefits in their employment offer letters (except for limited vesting acceleration provisions in our Chief Operating Officer's employment offer letter). Each of our named executive officers, including our Chief Executive Officer and Chief Operating Officer, is a participant in the applicable Executive Severance Plan, as further described below. The Executive Severance Plans provide for certain payments and benefits in the event of a termination of employment, including an involuntary termination of employment in connection with a change in control of the Company, and replaced the severance provisions in our named executive officers' employment offer letters and award agreements, if any, entered into prior to our initial public offering.

Jeff Lawson

We have not entered into an employment offer letter or employment agreement with Mr. Lawson.

Khozema Shipchandler

On August 20, 2018, we entered into an employment offer letter with Mr. Shipchandler, who currently serves as our Chief Financial Officer. The employment offer letter provided for Mr. Shipchandler's "at-will" employment and set forth his initial annual base salary and an initial stock option and RSU grant, as well as his eligibility to participate in our benefit plans generally. Mr. Shipchandler is subject to our standard employment, confidential information, invention assignment and arbitration agreement.

George Hu

On February 28, 2017, we entered into an employment offer letter with Mr. Hu, who currently serves as our Chief Operating Officer. The employment offer letter provided for Mr. Hu's "at-will" employment and set forth his initial annual base salary and initial stock option and RSU grants, as well as his eligibility to participate in our benefit plans generally. Mr. Hu is subject to our standard employment, confidential information, invention assignment and arbitration agreement.

Chee Chew

On November 9, 2018, we entered into an employment offer letter with Mr. Chew, who currently serves as our Chief Product Officer. The employment offer letter provided for Mr. Chew's "at-will" employment and set forth his initial annual base salary, and an initial RSU and option grant, as well as his eligibility to participate in our benefit plans generally. Mr. Chew is subject to our standard employment, confidential information, invention assignment and arbitration agreement.

Karyn Smith

On July 30, 2014, we entered into an employment offer letter with Ms. Smith, who currently serves as our General Counsel. The employment offer letter provided for Ms. Smith's "at-will" employment and set forth her initial annual base salary, target annual cash bonus opportunity and an initial option grant, as well as her eligibility to participate in our benefit plans generally. Ms. Smith is subject to our standard employment, confidential information, invention assignment and arbitration agreement.

Potential Payments Upon Termination or Change in Control

Executive Severance Plans

Our Executive Severance Plans provide that upon a termination of employment by us for any reason other than for “cause” (as defined in the applicable Executive Severance Plan except that for our Chief Operating Officer, “cause” will be as defined in his employment offer letter), death or disability outside of the change in control period (i.e., the period beginning three months prior to and ending 12 months after, a “change in control,” as defined in the applicable Executive Severance Plan), an eligible participant will be entitled to receive, subject to the execution and delivery of an effective release of claims in our favor, (i) a lump sum cash payment equal to nine months of base salary for our Chief Executive Officer, and six months of base salary for our other named executive officers, and (ii) a monthly cash payment for up to nine months for our Chief Executive Officer and up to six months for our other named executive officers equal to the monthly contribution we would have made to provide health insurance to the named executive officer if he or she had remained employed by us. Pursuant to the CEO Severance Plan, our Chief Executive Officer is also entitled to such benefits upon a resignation of employment for “good reason” (as defined in the CEO Severance Plan) outside of the change in control period. In addition, upon a (i) termination of employment by us other than due to cause, death or disability or (ii) a resignation of employment for “good reason”, in each case, outside of the change in control period, our Chief Executive Officer will be entitled to 12 months of acceleration of vesting for outstanding and unvested time-based equity awards.

The Executive Severance Plans also provide that upon a (i) termination of employment by us other than due to cause, death or disability or (ii) a resignation of employment for “good reason” (as defined in the Executive Severance Plans except that for our Chief Operating Officer, “good reason” will be as defined in his employment offer letter), in each case, within the change in control period, an eligible participant will be entitled to receive, in lieu of the payments and benefits above and subject to the execution and delivery of an effective release of claims in our favor, (1) a lump sum cash payment equal to 18 months of base salary for our Chief Executive Officer and 12 months of base salary for our other named executive officers, (2) a monthly cash payment for up to 18 months for our Chief Executive Officer and up to 12 months for our other named executive officers equal to the monthly contribution we would have made to provide health insurance to the named executive officer if he or she had remained employed by us, and (3) full accelerated vesting of all outstanding and unvested equity awards held by our named executive officers; provided, that the performance conditions applicable to any stock-based awards subject to performance conditions will be deemed satisfied at the target level specified in the terms of the applicable award agreement.

The payments and benefits provided under the Executive Severance Plans in connection with a change in control may not be eligible for a federal income tax deduction by us pursuant to Section 280G of the Code. These payments and benefits may also subject an eligible participant, including the named executive officers, to an excise tax under Section 4999 of the Code. If the payments or benefits payable to an eligible participant in connection with a change in control would be subject to the excise tax imposed under Section 4999 of the Code, then those payments or benefits will be reduced if such reduction would result in a higher net after-tax benefit to him or her.

Other Change in Control and Severance Arrangements

The following table presents information concerning estimated payments and benefits that would be provided in the circumstances described above for each of the named executive officers serving as of the end of the fiscal year ending December 31, 2019. The payments and benefits set forth below are estimated assuming that the termination or change in control event occurred on the last business day of our fiscal year ending December 31, 2019 using the closing market price of our stock on that date. Actual payments and benefits could be different if such events were to occur on any other date or at any other price or if any other assumptions are used to estimate potential payments and benefits.

Name	Qualifying Termination Not in Connection with a Change in Control ⁽¹⁾				Qualifying Termination in Connection with a Change in Control ⁽²⁾			
	Cash Severance (\$)	Continued Benefits (\$)	Equity Acceleration (\$) ⁽³⁾	Total (\$)	Cash Severance (\$)	Continued Benefits (\$)	Equity Acceleration (\$) ⁽³⁾⁽⁴⁾	Total (\$)
Jeff Lawson	100,275 ⁽⁵⁾	13,881 ⁽⁶⁾	14,218,847 ⁽⁷⁾	14,333,003	200,550 ⁽⁸⁾	27,761 ⁽⁹⁾	25,142,939	25,371,250
Khozema Shipchandler	283,500 ⁽¹⁰⁾	660 ⁽¹¹⁾	—	284,160	567,000 ⁽¹²⁾	1,320 ⁽¹³⁾	10,699,100	11,267,420
George Hu	305,000 ⁽¹⁰⁾	9,254 ⁽¹¹⁾	—	314,254	610,000 ⁽¹²⁾	18,508 ⁽¹³⁾	43,726,749	44,355,257
Chee Chew	210,000 ⁽¹⁰⁾	9,254 ⁽¹¹⁾	—	219,254	420,000 ⁽¹²⁾	18,508 ⁽¹³⁾	7,981,614	8,420,122
Karyn Smith	232,000 ⁽¹⁰⁾	5,178 ⁽¹¹⁾	—	237,178	464,000 ⁽¹²⁾	10,355 ⁽¹³⁾	7,358,959	7,833,314

- (1) A “qualifying termination” means a termination other than due to cause, death or disability (or a resignation for good reason, for Mr. Lawson) and “not in connection with a change in control” means outside of the change in control period.
- (2) A “qualifying termination” means a termination other than due to cause, death or disability or a resignation for good reason and “in connection with a change in control” means within the change in control period. Assumes that in connection with the change in control, outstanding equity awards are assumed, substituted or continued by the successor entity.
- (3) Represents the market value of the shares underlying the stock options and RSUs as of December 31, 2019, based on the closing price of our Class A common stock, as reported on The New York Stock Exchange, of \$98.28 per share on December 31, 2019. These values assume that the fair market value of the Class B common stock underlying certain of the stock options and RSUs, which is not listed or approved for trading on or with any securities exchange or association, is equal to the fair market value of our Class A common stock. Each share of Class B common stock is convertible into one share of Class A common stock at any time at the option of the holder or upon certain transfers of such shares.
- (4) Represents acceleration of vesting of 100% of the total number of shares underlying outstanding and unvested stock options and RSUs. For equity awards subject to performance conditions, the performance conditions have been deemed satisfied at target levels.
- (5) Represents nine months of our Chief Executive Officer’s annual base salary.
- (6) Represents nine months of our contribution towards health insurance, based on our actual costs to provide health insurance to our Chief Executive Officer immediately prior to termination.
- (7) Represents 12 months of accelerated vesting for outstanding and unvested time-based equity awards.
- (8) Represents 18 months of our Chief Executive Officer’s annual base salary.
- (9) Represents 18 months of our contribution towards health insurance, based on our actual costs to provide health insurance to our Chief Executive Officer immediately prior to termination.
- (10) Represents six months of the applicable named executive officer’s annual base salary.
- (11) Represents six months of our contribution toward health insurance, based on our actual costs to provide health insurance to the applicable named executive officer immediately prior to termination.
- (12) Represents 12 months of the applicable named executive officer’s annual base salary.
- (13) Represents 12 months of our contribution towards health insurance, based on our actual costs to provide health insurance to the applicable named executive officer immediately prior to termination.

CEO Pay Ratio

Pursuant to SEC rules, we are required to provide information regarding the relationship between the annual total compensation of our Chief Executive Officer, and the median of the annual total compensation of all of our employees (other than our Chief Executive Officer) for the year ended December 31, 2019:

- the annual total compensation of our median employee was \$191,956; and
- the annual total compensation of our Chief Executive Officer was \$12,292,577, as reported in the “Total Compensation” column in the “Summary Compensation Table” included in this proxy statement.

Based on this information, for 2019, the ratio of the annual total compensation of our CEO to the median of the annual total compensation of all our employees was 64:1. We believe this ratio is a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K under the Exchange Act.

As a result of the increase in our number of employees from 1,440 employees as of December 31, 2018 to 2,905 employees as of December 31, 2019, we elected to identify a new median employee as of December 31, 2019. In doing so, we used the same methodology we employed to identify the median employee as of December 31, 2018. Specifically, as permitted by SEC rules, we reviewed total direct compensation based on our consistently applied compensation measure, which we calculated as actual salary paid to our employees for 2019, actual sales commission earned by our employees in 2019, and the grant date fair value of equity awards granted to our employees in 2019. We used December 31, 2019 to determine our employee population. In determining this population, we included all worldwide full-time and part-time employees other than our Chief Executive Officer and excluded (i) approximately 49 individuals that became employees following acquisition transactions with Teravoz Holding LLC and Electric Imp Incorporated that were completed in late fiscal 2019 and (ii) contractors or workers employed through a third-party provider in our employee population. For employees paid in other than U.S. dollars, we converted their compensation to U.S. dollars using the exchange rates used by us for various purposes in effect on December 31, 2019 and did not make any cost-of-living adjustments to such compensation. We did not annualize total direct compensation for employees employed by us for less than the full fiscal year. Using our consistently applied compensation measure, we identified a median employee who is a full-time U.S.-based salaried employee.

Once we selected the individual who represented the median employee, we then calculated the annual total compensation for this employee using the same methodology we used for our named executive officers in our 2019 Summary Compensation Table to yield the median annual total compensation disclosed above.

COMPENSATION COMMITTEE REPORT

Our compensation committee has reviewed and discussed the section titled “Compensation Discussion and Analysis” with management. Based on such review and discussion, our compensation committee has recommended to the board of directors that the section titled “Compensation Discussion and Analysis” be included in this proxy statement.

Respectfully submitted by the members of our compensation committee of the board of directors:

Compensation Committee

Elena Donio (Chair)
Richard Dalzell
Jeffrey Immelt

EQUITY COMPENSATION PLAN INFORMATION

On February 1, 2019, in connection with our acquisition of SendGrid, we assumed the shares reserved and available for issuance under SendGrid’s Amended and Restated 2009 Equity Incentive Plan (the “**SendGrid 2009 Plan**”), 2012 Equity Incentive Plan (as amended, the “**SendGrid 2012 Plan**”) and 2017 Equity Incentive Plan (the “**SendGrid 2017 Plan**”), and such shares became available for issuance under our 2016 Plan. The following table provides information as of December 31, 2019 with respect to the shares of our common stock that may be issued under our existing equity compensation plans.

<u>Plan Category</u>	<u>(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights</u>	<u>(b) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights</u>	<u>(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))</u>
Equity compensation plans approved by stockholders ⁽¹⁾	14,074,200	\$32.5779 ⁽²⁾	18,806,687 ⁽³⁾
Equity compensation plans not approved by stockholders ⁽⁴⁾	2,109,667	16.9086	—
Total	<u>16,183,867</u>	<u>\$ 28.9986</u>	<u>18,806,687</u>

- (1) Includes the following plans: our 2008 Plan, 2016 Plan, and our ESPP.
- (2) Excludes shares that may be issued under RSUs as of December 31, 2019 since such shares subject to RSU awards have no exercise price.
- (3) As of December 31, 2019, a total of 14,957,734 shares of our Class A common stock were reserved for issuance pursuant to the 2016 Plan, which number excludes the 6,920,640 shares that were added to the 2016 Plan as a result of the automatic annual increase on January 1, 2020. The 2016 Plan provides that the number of shares reserved and available for issuance under the 2016 Plan will automatically increase each January 1, beginning on January 1, 2017, by 5% of the outstanding number of shares of our Class A and Class B common stock on the immediately preceding December 31 or such lesser number of shares as determined by our compensation committee. This number will be subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization. The shares of Class A and Class B common stock underlying any awards that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without the issuance of stock, expire or are otherwise terminated, other than by exercise, under the 2016 Plan and the 2008 Plan will be added back to the shares of Class A common stock available for issuance under the 2016 Plan (provided, that any such shares of Class B common stock will first be converted into shares of Class A common stock). The Company no longer makes grants under the 2008 Plan. As of December 31, 2019, a total of 3,848,953 shares of our Class A common stock were available for future issuance pursuant to the ESPP, which number includes shares subject to purchase during the current purchase period, which commenced on November 16, 2019 (the exact number of which will not be known until the purchase date on May 15, 2020) but excludes the 1,384,128 shares that were added to the ESPP as a result of the automatic annual increase on January 1, 2020. Subject to the number of shares remaining in the share reserve, the maximum number of shares purchasable by any participant on any one purchase date for any purchase period, including the current purchase period may not exceed 5,000 shares. The ESPP provides that the number of shares reserved and available for issuance under the ESPP will automatically increase each January 1, beginning on January 1, 2017, by the lesser of 1,800,000 shares of our Class A common stock, 1% of the outstanding number of shares of our Class A and Class B common stock on the immediately preceding December 31 or such lesser number of shares as determined by our compensation committee. This number will be subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

- (4) Includes the shares reserved and available for issuance under the SendGrid 2009 Plan, the SendGrid 2012 Plan and the SendGrid 2017 Plan that we assumed, which were approved by the stockholders of SendGrid, Inc., but not by a separate vote of our stockholders. Such shares became available for issuance under our 2016 Plan, but awards using such shares may not be granted to individuals who were employed, immediately prior to the acquisition, by us or our subsidiaries. In connection with our acquisition of SendGrid, Inc., we also assumed outstanding SendGrid, Inc. options and restricted stock units. As of December 31, 2019, there were 1,760,244 shares issuable under such outstanding stock options (with a weighted-average exercise price of \$16.9086) and 349,423 such outstanding restricted stock units.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information available to us with respect to the beneficial ownership of our capital stock as of March 31, 2020, for:

- each of our named executive officers;
- each of our directors;
- all of our current directors and executive officers as a group; and
- each person known by us to be the beneficial owner of more than 5% of the outstanding shares of our Class A or Class B common stock.

We have determined beneficial ownership in accordance with the rules of the SEC, and thus it represents sole or shared voting or investment power with respect to our securities. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares that they beneficially owned, subject to community property laws where applicable.

We have based our calculation of percentage ownership of our common stock on 128,606,443 shares of our Class A common stock and 11,356,940 shares of our Class B common stock outstanding on March 31, 2020. We have deemed shares of our capital stock subject to stock options that are currently exercisable or exercisable within 60 days of March 31, 2020 to be outstanding and to be beneficially owned by the person holding the stock option for the purpose of computing the percentage ownership of that person. We have deemed shares of our capital stock subject to RSUs for which the service condition has been satisfied or would be satisfied within 60 days of March 31, 2020 to be outstanding and to be beneficially owned by the person holding the RSUs for the purpose of computing the percentage ownership of that person. However, we did not deem these shares subject to stock options or RSUs outstanding for the purpose of computing the percentage ownership of any other person.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Twilio Inc., 101 Spear Street, First Floor, San Francisco, California 94105.

Name of Beneficial Owner	Shares Beneficially Owned					
	Class A		Class B		Voting % [†]	Ownership %
	Shares	%	Shares	%		
Named Executive Officers and Directors:						
Jeff Lawson ⁽¹⁾	307,566	*	7,049,441	60.4	28.8	5.2
Khozema Shipchandler ⁽²⁾	66,930	*	—	—	*	*
George Hu ⁽³⁾	1,045,145	*	—	—	*	*
Chee Chew ⁽⁴⁾	99,902	*	—	—	*	*
Karyn Smith ⁽⁵⁾	22,521	*	24,149	*	*	*
Richard Dalzell ⁽⁶⁾	9,900	*	116,000	1.0	*	*
Byron Deeter ⁽⁷⁾	519,900	*	—	—	*	*
Elena Donio ⁽⁸⁾	8,458	*	18,752	*	*	*
Jeff Epstein ⁽⁹⁾	26,484	*	—	—	*	*
Donna L. Dubinsky	—	—	—	—	—	—
Jeffrey Immelt ⁽¹⁰⁾	8,500	*	—	—	*	*
Erika Rottenberg ⁽¹¹⁾	10,342	*	20,279	*	*	*
All executive officers and directors as a group (12 persons)⁽¹²⁾:	2,125,648	1.6	7,228,621	61.2	30.0	6.6
5% Stockholders:						
Vanguard Group ⁽¹³⁾	11,341,295	8.8	—	—	4.7	8.1
T. Rowe Price ⁽¹⁴⁾	10,938,793	8.5	—	—	4.5	7.8
Morgan Stanley ⁽¹⁵⁾	8,119,827	6.3	—	—	3.4	5.8
BlackRock ⁽¹⁶⁾	7,324,059	5.7	—	—	3.0	5.2
Amazon.com NV Investment Holdings LLC ⁽¹⁷⁾	—	—	1,768,346	15.6	7.3	1.3
John Wolthuis ⁽¹⁸⁾	—	—	1,538,474	13.6	6.4	1.1

* Represents beneficial ownership of less than one percent (1%) of the outstanding shares.

† Percentage of total voting power represents voting power with respect to all shares of our Class A common stock and Class B common stock, as a single class. The holders of our Class A common stock are entitled to one vote per share, and holders of our Class B common stock are entitled to ten votes per share.

- (1) Consists of (i) 44,657 shares of Class A common stock held of record by Mr. Lawson, as trustee of the Lawson Revocable Trust, (ii) 5,699,569 shares of Class B common stock held of record by Mr. Lawson, as trustee of the Lawson Revocable Trust, (iii) 1,033,205 shares of Class B common stock held of record by The Lawson 2014 Irrevocable Trust, J.P. Morgan Trust Company, as trustee, (iv) 251,092 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of March 31, 2020, (v) 316,667 shares of Class B common stock subject to outstanding options that are exercisable within 60 days of March 31, 2020 and (vi) 11,817 shares of Class A common stock issuable upon the settlement of RSUs releasable within 60 days of March 31, 2020.
- (2) Consists of (i) 60,000 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of March 31, 2020 and (ii) 6,930 shares of Class A common stock issuable upon the settlement of RSUs releasable within 60 days of March 31, 2020.
- (3) Consists of (i) 6,648 shares of Class A common stock held of record by Mr. Hu, (ii) 1,023,227 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of March 31, 2020 and (iii) 15,270 shares of Class A common stock issuable upon the settlement of RSUs releasable within 60 days of March 31, 2020.

- (4) Consists of (i) 14,473 shares of Class A common stock held of record by Mr. Chew, (ii) 80,354 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of March 31, 2020 and (iii) 5,075 shares of Class A common stock issuable upon the settlement of RSUs releasable within 60 days of March 31, 2020.
- (5) Consists of (i) 6,073 shares of Class A common stock held of record by Ms. Smith, as trustee of The Karyn Smith Revocable Trust u/a/d 9/15/06, amended 12/23/11, (ii) 1,172 shares of Class B common stock held of record by Ms. Smith, as trustee of The Karyn Smith Revocable Trust u/a/d 9/15/06, amended 12/23/11, (iii) 12,561 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of March 31, 2020, (iv) 22,977 shares of Class B common stock subject to options that are exercisable within 60 days of March 31, 2020 and (v) 3,887 shares of Class A common stock issuable upon the settlement of RSUs releasable within 60 days of March 31, 2020.
- (6) Consists of (i) 9,900 shares of Class A common stock held of record by Mr. Dalzell and (ii) 116,000 shares of Class B common stock subject to outstanding options that are exercisable within 60 days of March 31, 2020.
- (7) Consists of (i) 12,640 shares of Class A common stock held of record by Mr. Deeter and (ii) 507,260 shares of Class A Common stock held of record by Byron B. Deeter and Allison K. Deeter Trustees TD July 28, 2000.
- (8) Consists of (i) 8,458 shares of Class A common stock held of record by Ms. Donio and (ii) 18,752 shares of Class B common stock held of record by Ms. Donio.
- (9) Consists of 26,484 shares of Class A common stock held of record by Mr. Epstein, as Trustee of the Epstein Family Revocable Trust.
- (10) Consists of 8,500 shares of Class A common stock held of record by Mr. Immelt.
- (11) Consists of (i) 10,342 shares of Class A common stock held of record by Ms. Rottenberg, as trustee of the Erika Rottenberg Revocable Trust and (ii) 20,279 shares of Class B common stock held of record by Ms. Rottenberg, as trustee of the Erika Rottenberg Revocable Trust.
- (12) Consists of (i) 655,435 shares of Class A common stock held of record, (ii) 6,772,977 shares of Class B common stock held of record, (iii) 1,427,234 shares of Class A common stock subject to outstanding stock options that are exercisable within 60 days of March 31, 2020, (iv) 455,644 shares of Class B common stock subject to outstanding stock options that are exercisable within 60 days of March 31, 2020 and (v) 42,979 shares of Class A common stock issuable upon the settlement of RSUs releasable within 60 days of March 31, 2020.
- (13) Based on information reported by the Vanguard Group on Schedule 13G/A filed with the SEC on February 12, 2020. Of the shares of Class A common stock beneficially owned, The Vanguard Group reported that it has sole dispositive power with respect to 11,225,813 shares, shared dispositive power with respect to 115,482 shares, sole voting power with respect to 97,411 shares and shared voting power with respect to 30,364 shares. The Vanguard Group listed their address as 100 Vanguard Blvd., Malvern, Pennsylvania 19355.
- (14) Based on information reported by T. Rowe Price Associates, Inc. and T. Rowe Price New Horizons Fund, Inc. on Schedule 13G filed with the SEC on February 14, 2020. Of the shares of Class A common stock beneficially owned, T. Rowe Price Associates reported that it has sole dispositive power with respect to 10,938,793 shares and sole voting power with respect to 2,894,328 shares and T. Rowe Price New Horizons Fund, Inc. reported that it has sole voting power with respect to 6,325,177 shares. T. Rowe Price Associates Inc. and T. Rowe Price New Horizons Fund, Inc. listed their address as 100 E. Pratt Street, Baltimore, Maryland 21202.
- (15) Based on information reported by Morgan Stanley and Morgan Stanley Investment Management Inc. on Schedule 13G filed with the SEC on February 13, 2020. Of the shares of Class A common stock beneficially owned, Morgan Stanley reported that it has shared dispositive power with respect to

8,119,827 shares and shared voting power with respect to 7,546,856 shares. Morgan Stanley and Morgan Stanley Investment Management Inc. listed their address as 1585 Broadway, New York, NY 10036.

- (16) Based on information reported by BlackRock, Inc. on Schedule 13G filed with the SEC on February 10, 2020. Of the shares of Class A common stock beneficially owned, Blackrock, Inc. reported that it has sole dispositive power with respect to 7,324,059 shares and sole voting power with respect to 6,408,509. BlackRock, Inc. listed its address as 55 East 52nd Street, New York, NY 10055.
- (17) Based on shares held of record by Amazon.com NV Investment Holdings LLC (“**Amazon NV**”) as of March 31, 2020 and registered with our transfer agent. Amazon NV’s address is listed as 410 Terry Avenue North, Seattle, WA 98109.
- (18) Consists of 1,538,474 shares of Class B common stock held of record by Mr. Wolthuis.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the compensation arrangements, including employment, termination of employment and change in control arrangements, discussed in the section titled “Executive Compensation” the following is a description of each transaction since the beginning of our last fiscal year, and each currently proposed transaction in which:

- we have been or are to be a participant;
- the amount involved exceeded or exceeds \$120,000; and
- any of our directors, executive officers, or holders of more than 5% of our capital stock, or any immediate family member of, or person sharing the household with, any of these individuals, had or will have a direct or indirect material interest.

Investors’ Rights Agreement

We are party to an investors’ rights agreement which provides, among other things, that certain holders of our capital stock have the right to demand that we file a registration statement or request that their shares of our capital stock be covered by a registration statement that we are otherwise filing. The parties to the investors’ rights agreement include entities affiliated with Jeff Lawson, our current director, Evan Cooke, a former director, and entities affiliated with Fidelity, Bessemer Venture Partners, Redpoint Ventures and Union Square Ventures.

Acquisition of SendGrid

In February 2019, we acquired all outstanding shares of capital stock of SendGrid, the leading email API platform, by issuing 23.6 million shares of our Class A common stock with a total value of \$2,658.9 million. Pursuant to the Agreement and Plan of Merger and Reorganization, as amended, each outstanding share of SendGrid common stock converted into 0.485 of a share of our Class A common stock. At the time of the acquisition, Byron Deeter, a director of our Company and a partner of Bessemer Venture Partners (“BVP”), independently and through BVP and their respective related entities, was a securityholder of each of SendGrid and Twilio. Due to his then concurrent service as a director of each of SendGrid and Twilio, Mr. Deeter recused himself from all Twilio board deliberations and Sendgrid board deliberations with respect to the acquisition. Upon the closing of the acquisition on February 1, 2019, and after accounting for the acceleration of certain restricted stock units pursuant to the terms of Mr. Deeter’s equity award agreements with SendGrid, we issued a total of 21,348 shares of Class A common stock to Mr. Deeter and 3,079,413 shares of Class A common stock to affiliated funds of BVP, with an aggregate grant date fair value of approximately \$2.4 million and \$347.6 million, respectively.

Other Transactions

We have granted stock options and RSUs to our named executive officers and certain of our directors. See the section titled “Executive Compensation—Individual Compensation Arrangements—Long-Term Incentive Compensation”, “Executive Compensation—Outstanding Equity Awards at Year-End Table” and “Board of Directors and Corporate Governance—Non-Employee Director Compensation” for a description of these stock options and RSUs.

We have entered into severance and change in control arrangements with certain of our executive officers pursuant to employment offer letters and/or our severance plan that, among other things, provides for certain severance and change in control payments and benefits. See the sections titled “Executive Compensation—Post-Employment Compensation Arrangements” and “Executive Compensation—Potential Payments Upon Termination or Change in Control.”

Other than as described above under this section titled “Certain Relationships and Related Party Transactions,” since January 1, 2019, we have not entered into any transactions, nor are there any currently proposed transactions, between us and a related party where the amount involved exceeds, or would

exceed, \$120,000, and in which any related person had or will have a direct or indirect material interest. We believe the terms of the transactions described above were comparable to terms we could have obtained in arm's-length dealings with unrelated third parties.

Indemnification of Officers and Directors

Our amended and restated certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for the following:

- any breach of their duty of loyalty to our Company or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which they derived an improper personal benefit.

Any amendment to, or repeal of, these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to that amendment or repeal. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

In addition, our amended and restated bylaws provide that we will indemnify, to the fullest extent permitted by law, any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of our directors or officers or is or was serving at our request as a director or officer of another corporation, partnership, joint venture, trust or other enterprise. Our amended and restated bylaws provide that we may indemnify our employees and agents to the extent not prohibited by the Delaware General Corporation Law or other applicable law. Our amended and restated bylaws also provide that we must advance expenses incurred by or on behalf of a director or officer in advance of the final disposition of any action or proceeding, subject to limited exceptions.

Further, we have entered into indemnification agreements with each of our directors and executive officers that may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements require us, among other things, to indemnify our directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require us to advance all expenses incurred by the directors and executive officers in investigating or defending any such action, suit or proceeding. We believe that these agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

The limitation of liability and indemnification provisions that are included in our amended and restated certificate of incorporation, amended and restated bylaws and in indemnification agreements that we have entered into with our directors and executive officers may discourage stockholders from bringing a lawsuit against our directors and executive officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against our directors and executive officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and executive officers as required by these indemnification provisions.

We have obtained insurance policies under which, subject to the limitations of the policies, coverage is provided to our directors and executive officers against loss arising from claims made by reason of breach of fiduciary duty or other wrongful acts as a director or executive officer, including claims relating to public securities matters, and to us with respect to payments that may be made by us to these directors and executive officers pursuant to our indemnification obligations or otherwise as a matter of law.

Certain of our non-employee directors may, through their relationships with their employers, be insured and/or indemnified against certain liabilities incurred in their capacity as members of our board of directors.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling our Company pursuant to the foregoing provisions, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Policies and Procedures for Related Party Transactions

Our audit committee has the primary responsibility for reviewing and approving or disapproving “related party transactions,” which are transactions between us and related persons in which the aggregate amount involved exceeds or may be expected to exceed \$120,000 and in which a related person has or will have a direct or indirect material interest. Our policy regarding transactions between us and related persons will provide that a related person is defined as a director, executive officer, nominee for director or greater than 5% beneficial owner of our Class A and Class B common stock, in each case since the beginning of the most recently completed year, and any of their immediate family members. Our audit committee charter provides that our audit committee shall review and approve or disapprove any related party transactions.

OTHER MATTERS

Delinquent Section 16(a) Reports

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires that our executive officers and directors, and persons who own more than 10% of our common stock, file reports of ownership and changes of ownership with the SEC. Such directors, executive officers and 10% stockholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file.

SEC regulations require us to identify in this proxy statement anyone who filed a required report late during the most recent year. Based on our review of forms we received, or written representations from reporting persons stating that they were not required to file these forms, we believe that during 2019, all Section 16(a) filing requirements were satisfied on a timely basis, except with respect to the failure to timely file a Form 4 for Karyn Smith (filed with the SEC on June 25, 2019).

2019 Annual Report and SEC Filings

Our financial statements for the year ended December 31, 2019 are included in our annual report on Form 10-K, which we will make available to stockholders at the same time as this proxy statement. Our annual report and this proxy statement are posted on our website at <https://investors.twilio.com> and are available from the SEC at its website at www.sec.gov. You may also obtain a copy of our annual report without charge by sending a written request to Investor Relations, Twilio Inc., 101 Spear Street, First Floor, San Francisco, California 94105.

* * *

The board of directors does not know of any other matters to be presented at the Annual Meeting. If any additional matters are properly presented at the Annual Meeting, the persons named in the enclosed proxy card will have discretion to vote shares they represent in accordance with their own judgment on such matters.

It is important that your shares be represented at the Annual Meeting, regardless of the number of shares that you hold. You are, therefore, urged to vote by telephone or by using the Internet as instructed on the enclosed proxy card or execute and return, at your earliest convenience, the enclosed proxy card in the envelope that has also been provided.

THE BOARD OF DIRECTORS
San Francisco, California
April 22, 2020

APPENDIX A

KEY BUSINESS METRICS AND NON-GAAP FINANCIAL MEASURE INFORMATION

Set forth below in this Appendix A is important information about how we measure Active Customer Accounts, Base Revenue and other key business metrics as well as a reconciliation of our non-GAAP to GAAP financial measures.

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.

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 Income (Loss) 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
	(In thousands)				
Reconciliation:					
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)%

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 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 26-2574840
(State or other jurisdiction of incorporation or organization) (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 Accelerated filer Non-accelerated filer Smaller reporting company
Emerging growth company

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

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

The 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
TABLE OF CONTENTS

		<u>Page</u>
PART I		
Item 1.	Business	4
Item 1A.	Risk Factors	17
Item 1B.	Unresolved Staff Comments	55
Item 2.	Properties	55
Item 3.	Legal Proceedings	55
Item 4.	Mine Safety Disclosures	57
PART II		
Item 5.	Market for Registrant’s Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities	58
Item 6.	Selected Financial Data	60
Item 7.	Management’s Discussion and Analysis of Financial Condition and Results of Operations	64
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	84
Item 8.	Financial Statements and Supplementary Data	85
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	140
Item 9A.	Controls and Procedures	140
Item 9B.	Other Information	141
PART III		
Item 10.	Directors, Executive Officers and Corporate Governance	142
Item 11.	Executive Compensation	142
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	142
Item 13.	Certain Relationships and Related Transactions and Director Independence	142
Item 14.	Principal Accountant Fees and Services	142
PART IV		
Item 15.	Exhibits, Financial Statement Schedules	143
Item 16.	Form 10-K Summary	146

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.

PART I

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. 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.

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

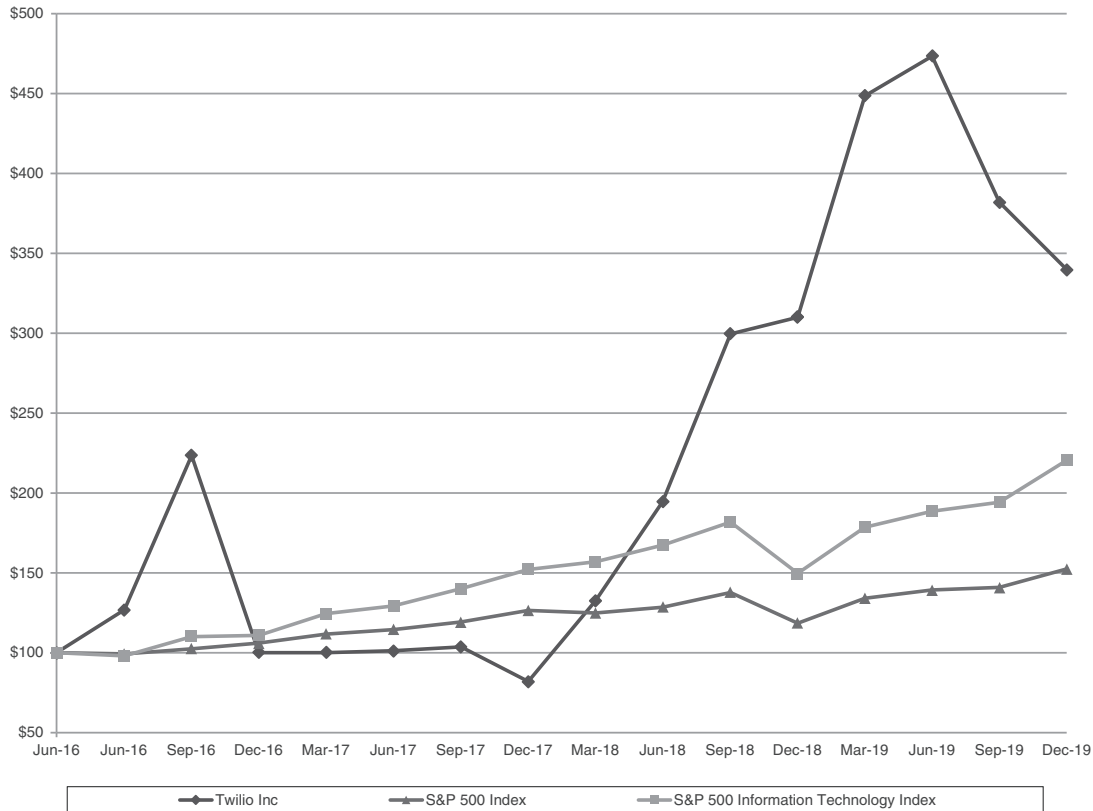
We have never declared or paid any cash dividends on our capital stock. We intend to retain any future earnings and do not expect to pay any dividends in the foreseeable future.

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.

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(In thousands, except share and per share amounts)				
Consolidated Statements of Operations Data:					
Revenue	\$ 1,134,468	\$ 650,067	\$ 399,020	\$ 277,335	\$ 166,919
Cost of revenue ^{(1) (2)}	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 ^{(1) (2)}	391,355	171,358	120,739	77,926	42,559
Sales and marketing ^{(1) (2)}	369,079	175,555	100,669	65,267	49,308
General and administrative ^{(1) (2)}	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:					
Number of Active Customer Accounts (<i>as of end date of period</i>) ^{(3) (4)}	179,000	64,286	48,979	36,606	25,347
Base Revenue (in thousands) ^{(3) (5)}	\$ 1,059,808	\$ 593,017	\$ 365,490	\$ 245,548	\$ 136,851
Base Revenue Growth Rate ⁽³⁾	79%	62%	49%	79%	81%
Dollar-Based Net Expansion Rate ⁽⁶⁾	136%	140%	128%	161%	155%

(1) 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

- (2) 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	<u>\$72,807</u>	<u>\$7,170</u>	<u>\$5,620</u>	<u>\$880</u>	<u>\$464</u>

- (3) 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.
- (4) See Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Business Metrics—Number of Active Customer Accounts.”
- (5) See Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Business Metrics—Base Revenue.”
- (6) See Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Key Business Metrics—Dollar- Based Net Expansion Rate.”

	As of December 31,				
	2019	2018	2017	2016	2015
	(In thousands)				
Consolidated Balance Sheet Data:					
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
	(In thousands)				
Reconciliation:					
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
	(In thousands)				
Reconciliation:					
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	<u>(15,084)</u>	<u>(5,617)</u>	<u>(2,950)</u>	<u>(434)</u>	<u>—</u>
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
	(In thousands)				
Reconciliation:					
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	<u>—%</u>	<u>1%</u>	<u>(5)%</u>	<u>(4)%</u>	<u>(14)%</u>

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 (<i>as of end date of period</i>) ⁽¹⁾	179,000	64,286	48,979
Base Revenue (<i>in thousands</i>) ⁽¹⁾	\$1,059,808	\$593,017	\$365,490
<i>Base Revenue Growth Rate</i> ⁽¹⁾	79%	62%	49%
Dollar-Based Net Expansion Rate	136%	140%	128%

(1) 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 ⁽¹⁾⁽²⁾	525,551	300,841	182,895
Gross profit	608,917	349,226	216,125
Operating expenses:			
Research and development ⁽¹⁾⁽²⁾	391,355	171,358	120,739
Sales and marketing ⁽¹⁾⁽²⁾	369,079	175,555	100,669
General and administrative ⁽¹⁾⁽²⁾	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

(1) 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

(2) 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	<u>\$72,807</u>	<u>\$7,170</u>	<u>\$5,620</u>

	Year Ended December 31,		
	2019	2018	2017
Consolidated Statements of Operations, as a percentage of revenue:**			
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	<u>(27)%</u>	<u>(19)%</u>	<u>(16)%</u>

* 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%	\$227,527	62%
Variable Revenue	74,660	57,050	33,530	17,610	31%	23,520	70%
Total Revenue	<u>\$1,134,468</u>	<u>\$650,067</u>	<u>\$399,020</u>	<u>\$484,401</u>	75%	<u>\$251,047</u>	63%

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%	\$117,946	64%
Gross margin	54%	54%	54%				

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	<u>\$978,702</u>	<u>\$464,461</u>	<u>\$282,199</u>	<u>\$514,241</u>	111%	<u>\$182,262</u>	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.

	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)							
Consolidated Statements of Operations:								
Revenue	\$129,116	\$147,754	\$168,895	\$204,302	\$233,139	\$275,039	\$295,066	\$331,224
Cost of revenue ⁽¹⁾⁽²⁾	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 ⁽¹⁾⁽²⁾	37,576	39,811	42,340	51,631	77,855	98,783	104,481	110,236
Sales and marketing ⁽¹⁾⁽²⁾	32,822	37,749	45,949	59,035	71,607	90,421	100,657	106,394
General and administrative ⁽¹⁾⁽²⁾	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	<u>\$ (23,729)</u>	<u>\$ (24,006)</u>	<u>\$ (27,056)</u>	<u>\$ (47,158)</u>	<u>\$ (36,503)</u>	<u>\$ (92,579)</u>	<u>\$ (87,734)</u>	<u>\$ (90,247)</u>

(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	<u>\$17,540</u>	<u>\$21,006</u>	<u>\$22,741</u>	<u>\$31,986</u>	<u>\$58,324</u>	<u>\$70,740</u>	<u>\$68,268</u>	<u>\$66,986</u>

(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	<u>\$1,460</u>	<u>\$1,351</u>	<u>\$1,806</u>	<u>\$2,553</u>	<u>\$13,616</u>	<u>\$19,248</u>	<u>\$19,992</u>	<u>\$19,951</u>

	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)							
Consolidated Statement of Operations, as a percentage of revenue**								
Revenue	100%	100%	100%	100%	100%	100%	100%	100%
Cost of revenue	<u>46</u>	<u>46</u>	<u>46</u>	<u>47</u>	<u>46</u>	<u>45</u>	<u>46</u>	<u>47</u>
Gross profit	<u>54</u>	<u>54</u>	<u>54</u>	<u>53</u>	<u>54</u>	<u>55</u>	<u>54</u>	<u>53</u>
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	<u>73</u>	<u>69</u>	<u>69</u>	<u>74</u>	<u>92</u>	<u>89</u>	<u>86</u>	<u>81</u>
Loss from operations	(19)	(15)	(15)	(22)	(38)	(34)	(32)	(28)
Other income (expenses), net	<u>1</u>	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>	<u>*</u>	<u>*</u>	<u>1</u>	<u>1</u>
Loss before benefit (provision) for income taxes	<u>(18)</u>	<u>(16)</u>	<u>(16)</u>	<u>(23)</u>	<u>(38)</u>	<u>(34)</u>	<u>(31)</u>	<u>(27)</u>
Benefit (provision) for income taxes	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>22</u>	<u>1</u>	<u>1</u>	<u>*</u>
Net loss attributable to common stockholders	<u>(18)%</u>	<u>(16)%</u>	<u>(16)%</u>	<u>(23)%</u>	<u>(16)%</u>	<u>(34)%</u>	<u>(30)%</u>	<u>(27)%</u>

* 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) ⁽¹⁾⁽²⁾	53,985	57,350	61,153	64,286	154,797	161,869	172,092	179,000
Base Revenue (in thousands) ⁽¹⁾⁽³⁾	\$117,507	\$135,004	\$154,348	\$186,158	\$220,885	\$256,737	\$275,548	\$306,638
<i>Base Revenue Growth Rate</i> ⁽¹⁾	46%	54%	68%	77%	88%	90%	79%	65%
Dollar-Based Net Expansion Rate ⁽⁴⁾	132%	137%	145%	147%	146%	140%	132%	124%

- (1) 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.
- (2) See the section titled “Key Business Metrics—Number of Active Customer Accounts.”
- (3) See the section titled “Key Business Metrics—Base Revenue.”
- (4) 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 ⁽¹⁾	\$ 35,997	\$ 67,976	\$ 53,259	\$43,125	\$200,357
Finance leases ⁽²⁾	7,586	6,992	1,896	581	17,055
Convertible senior notes ⁽³⁾	—	—	549,999	—	549,999
Noncancelable purchase obligations ⁽⁴⁾	62,444	53,668	3,750	—	119,862
Total payments	<u>\$106,027</u>	<u>\$128,636</u>	<u>\$608,904</u>	<u>\$43,706</u>	<u>\$887,273</u>

- (1) Operating leases represent total future minimum rent payments under noncancelable operating lease agreements.
- (2) Finance leases represent total future minimum payments under a noncancelable financing lease agreements.
- (3) 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.
- (4) 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*

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	<u>Page</u>
Reports of Independent Registered Public Accounting Firm	86
Consolidated Balance Sheets	89
Consolidated Statements of Operations	90
Consolidated Statements of Comprehensive Loss	91
Consolidated Statements of Stockholders' Equity	92
Consolidated Statements of Cash Flows	93
Notes to Consolidated Financial Statements	94

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)	
ASSETS		
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
LIABILITIES AND STOCKHOLDERS' EQUITY		
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)							
Balance as of December 31, 2016	49,996,410	\$ 51	37,252,138	\$ 36	\$ 516,090	\$ —	\$ (186,730)	\$ 329,447
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	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
Balance as of December 31, 2017	69,906,550	70	24,063,246	24	608,165	2,025	(250,438)	359,846
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	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
Balance as of December 31, 2018	80,769,763	80	19,310,465	20	808,527	1,282	(371,674)	438,235
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	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	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
Balance as of December 31, 2019	126,882,172	\$124	11,530,627	\$ 14	\$4,952,999	\$ 5,086	\$(678,812)	\$4,279,411

See accompanying notes to consolidated financial statements.

TWILIO INC.
Consolidated Statements of Cash Flows

	Year Ended December 31,		
	2019	2018	2017
	(In thousands)		
CASH FLOWS FROM OPERATING ACTIVITIES:			
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	14,048	7,983	(3,255)
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	(1,285,792)	(139,419)	(226,748)
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	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	(251,599)	384,546	(193,492)
CASH, CASH EQUIVALENTS AND RESTRICTED CASH—Beginning of period	505,334	120,788	314,280
CASH, CASH EQUIVALENTS AND RESTRICTED CASH—End of period	\$ 253,735	\$ 505,334	\$ 120,788
Cash paid for income taxes, net	\$ 1,368	\$ 564	\$ 605
Cash paid for interest	\$ 2,290	\$ 741	\$ —
NON-CASH INVESTING AND FINANCING ACTIVITIES:			
Finance lease right-of-use assets assumed in a business combination	\$ 14,173	\$ —	\$ —
Purchases of property and equipment through finance leases	\$ 5,848	\$ 2,478	\$ —
Acquisition holdback	\$ 7,980	\$ 2,290	\$ —
Value of common stock issued and stock awards assumed in acquisition	\$ 2,841,452	\$ —	\$ —
Stock-based compensation capitalized in software development costs	\$ 7,777	\$ 5,706	\$ 4,176

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

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;

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

- *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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

(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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

(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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

(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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

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)								
Financial Assets:								
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	<u>\$ 1,788,886</u>	<u>\$ 4,757</u>	<u>\$ (58)</u>	<u>\$ —</u>	<u>\$374,337</u>	<u>\$1,413,748</u>	<u>\$5,500</u>	<u>\$ 1,793,585</u>

	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)								
Financial Assets:								
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	<u>\$ 726,685</u>	<u>\$ 23</u>	<u>\$(130)</u>	<u>\$(233)</u>	<u>\$480,003</u>	<u>\$ 246,342</u>	<u>\$ —</u>	<u>\$ 726,345</u>

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

3. Fair Value Measurements (Continued)

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
	(In thousands)			
Financial Assets:				
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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

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 ⁽¹⁾	22,009	—
Leasehold improvements	55,886	15,293
Office equipment	25,083	13,563
Furniture and fixtures ⁽¹⁾	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

(1) 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	\$17,104	\$13,024	\$8,407

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

5. Right-of-Use Asset and Lease Liabilities (Continued)

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	\$49,490

Supplemental balance sheet information related to leases was as follows:

Leases	Classification	As of December 31, 2019
		(In thousands)
Assets:		
Operating lease assets	Operating right-of-use asset, net of accumulated amortization ⁽¹⁾	\$156,741
Finance lease assets	Property and equipment, net of accumulated depreciation ⁽²⁾	14,770
Total leased assets		\$171,511
Liabilities:		
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
Total lease liabilities		\$182,026

- (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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

5. Right-of-Use Asset and Lease Liabilities (Continued)

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

	<u>Year Ended December 31, 2019</u> (In thousands)
Cash paid for amounts included in the measurement of lease liabilities:	
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:

	<u>As of December 31, 2019</u>	
<u>Year Ended December 31,</u>	<u>Operating Leases</u>	<u>Finance Leases</u>
	(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	<u>\$139,200</u>	<u>\$ 8,746</u>

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

5. Right-of-Use Asset and Lease Liabilities (Continued)

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:

<u>Year Ended December 31,</u>	<u>As of December 31, 2019</u>	
	<u>Operating Leases</u>	<u>Financing Leases</u>
	(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	<u>\$226,483</u>	<u>\$4,528</u>

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

6. Business Combinations (Continued)

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:

	Total
	(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	\$2,841,452

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

	Total
	(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 ⁽¹⁾	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)
Total purchase price	\$2,841,452

⁽¹⁾ Identifiable intangible assets are comprised of the following:

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

6. Business Combinations (Continued)

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

6. Business Combinations (Continued)

- 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:

	Year Ended December 31,	
	2019	2018
	(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:

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

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

6. Business Combinations (Continued)

	Total	Estimated life
	(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	\$22,986	

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:

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

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

6. Business Combinations (Continued)

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

- (2) 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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

6. Business Combinations (Continued)

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

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

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

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

(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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

6. Business Combinations (Continued)

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:

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

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

	Total	Estimated life
	(In thousands)	(In years)
Developed technology	\$ 5,000	4
Customer relationships	6,100	7 - 8
Supplier relationships	2,600	5
	<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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

7. Goodwill and Intangible Assets

Goodwill

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

	Total
	(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:

	As of December 31, 2019		
	Gross	Accumulated Amortization	Net
		(In thousands)	
Amortizable intangible assets:			
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
Non-amortizable intangible assets:			
Telecommunication licenses	4,370	—	4,370
Domain names	32	—	32
Trademarks and other	263	—	263
Total	\$548,107	\$ (87,258)	\$460,849

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

7. Goodwill and Intangible Assets (Continued)

	As of December 31, 2018		
	Gross	Accumulated Amortization	Net
Amortizable intangible assets:		(In thousands)	
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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

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	\$147,681	\$96,343

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	\$17,747	\$18,169

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

9. Notes Payable (Continued)

\$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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

9. Notes Payable (Continued)

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	\$458,190	\$ 434,496

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

9. Notes Payable (Continued)

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	\$116,616	\$116,616

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	\$25,071	\$14,905

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

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
	(In thousands)		
Revenue by geographic area:			
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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

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:

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

(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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

12. Commitments and Contingencies (Continued)

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

12. Commitments and Contingencies (Continued)

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

12. Commitments and Contingencies (Continued)

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

13. Stockholders' Equity (Continued)

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	46,270,890	39,692,245

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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

14. Stock-Based Compensation (Continued)

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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

14. Stock-Based Compensation (Continued)

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	<u>7,150,848</u>	\$ 28.79	6.47	\$511,971
Options vested and exercisable as of December 31, 2019	<u>4,721,801</u>	\$ 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 ⁽¹⁾	\$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

⁽¹⁾ 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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

14. Stock-Based Compensation (Continued)

period were estimated using the Monte-Carlo simulation model. The following table summarizes the details of the performance options:

	<u>Number of options outstanding</u>	<u>Weighted- average exercise price (Per share)</u>	<u>Weighted- average remaining contractual term (in years)</u>	<u>Aggregate intrinsic value (In thousands)</u>
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

	<u>Number of awards outstanding</u>	<u>Weighted- average grant date fair value (Per share)</u>	<u>Aggregate intrinsic value (In thousands)</u>
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	(854,669)	\$ 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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

14. Stock-Based Compensation (Continued)

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:

	Year Ended December 31,		
	2019	2018	2017
Employee Stock Options:			
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:			
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	<u>\$264,318</u>	<u>\$93,273</u>	<u>\$49,619</u>

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

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
	<i>(In thousands, except share and per share data)</i>		
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 ⁽¹⁾	3,150,647	233	—
Unvested shares subject to repurchase	—	1,250	5,214
Total	20,350,477	16,928,742	17,251,486

(1) 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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

15. Net Loss Per Share Attributable to Common Stockholders (Continued)

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
	(In thousands)		
Current:			
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

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

16. Income Taxes (Continued)

The following table presents a reconciliation of the statutory federal tax rate and the Company's effective tax rate:

	<u>Year Ended December 31,</u>		
	<u>2019</u>	<u>2018</u>	<u>2017</u>
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	<u>15%</u>	<u>—%</u>	<u>(1)%</u>

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:

	<u>As of December 31,</u>		
	<u>2019</u>	<u>2018</u>	<u>2017</u>
Deferred tax assets:		(In thousands)	
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
Deferred tax liabilities:			
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	<u>\$ (7,535)</u>	<u>\$ (5,181)</u>	<u>\$ (2,452)</u>

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

16. Income Taxes (Continued)

The following table summarizes our tax carryforwards, carryovers, and credits:

	<u>As of</u> <u>December 31, 2019</u>	<u>Expiration Date (If not utilized)</u>
	(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:

	<u>Year Ended December 31,</u>		
	<u>2019</u>	<u>2018</u>	<u>2017</u>
	(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	<u>20,863</u>	<u>4,961</u>	<u>3,008</u>
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.

TWILIO INC.

Notes to Consolidated Financial Statements (Continued)

16. Income Taxes (Continued)

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) 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+	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	8-K	011-37806	2.1	October 16, 2018
2.2	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	10-K	001-37806	2.2	March 1, 2019
3.1	Amended and Restated Certificate of Incorporation of Twilio Inc.	S-1A	333-211634	3.1	June 13, 2016
3.2	Amended and Restated Bylaws of Twilio Inc.	S-1A	333-211634	3.3	June 13, 2016
4.1	Form of Class A Common Stock Certificate of Twilio Inc.	S-1	333-211634	4.1	May 26, 2016
4.2	Amended and Restated Investors' Rights Agreement, dated April 24, 2015, between Twilio Inc. and certain of its stockholders	S-1	333-211634	4.2	May 26, 2016
4.3	Indenture, dated as of May 17, 2018, between Twilio Inc. and Wilmington Trust, National Association, as trustee	8-K	001-37806	4.1	May 18, 2018
4.4	Form of 0.25% Convertible Senior Notes due 2023 (included in Exhibit 4.3)	8-K	001-37806	4.2	May 18, 2018
4.5	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934				Filed herewith
10.1*	Form of Indemnification Agreement	S-1A	333-211634	10.1	June 13, 2016
10.2*	Twilio Inc. 2008 Stock Option Plan, as amended and restated, and forms of Stock Option Agreement and form of Stock Option Grant Notice	S-1	333-211634	10.2	May 26, 2016
10.3*	Twilio Inc. Amended and Restated 2016 Stock Option and Incentive Plan, and forms of Agreements thereunder				Filed herewith

Exhibit Number	Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.4*	Twilio Inc. 2019 France Sub-Plan to the 2016 Stock Option and Incentive Plan	10-Q	001-37806	10.2	October 31, 2019
10.5*	Twilio Inc. Amended and Restated 2016 Employee Stock Purchase Plan	10-Q	001-37806	10.1	October 31, 2019
10.6	Office Lease, dated January 8, 2016, as amended January 8, 2016, between Twilio Inc. and Bay Area Headquarters Authority	S-1	333-211634	10.6	May 26, 2016
10.7	Sublease, dated as of August 30, 2018, by and between Salesforce.com, Inc. and Twilio Inc.	10-Q	001-37806	10.1	November 8, 2018
10.8	Consent to Sublease Agreement, dated as of September 25, 2018, by and among Hudson Rincon Center, LLC, Salesforce.com Inc. and Twilio Inc.	10-Q	001-37806	10.2	November 8, 2018
10.9*	Offer letter with George Hu, dated February 28, 2017	8-K	001-37806	10.1	March 3, 2017
10.10*	Offer letter with Khozema Shipchandler, dated August 20, 2018	8-K	001-37806	10.1	October 25, 2018
10.11*	Chief Executive Officer Severance Plan dated March 28, 2018 and form of participation letter	10-Q	001-37806	10.1	May 10, 2018
10.12*	Key Executive Severance Plan, dated March 28, 2018 and form of participation letter	10-Q	001-37806	10.2	May 10, 2018
10.13	Form of Capped Call Confirmation	8-K	001-37806	10.1	May 18, 2018
21.1	List of subsidiaries of the Registrant				Filed herewith
23.1	Consent of KPMG, LLP, Independent Registered Public Accounting Firm				Filed herewith
31.1	Certification of the Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				Filed herewith
31.2	Certification of the Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				Filed herewith

Exhibit Number	Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
32.1**	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				Furnished herewith
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).				

+ 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.

Twilio Inc.

March 2, 2020	<hr/> <i>/s/</i> JEFFREY LAWSON Jeffrey Lawson <i>Director and Chief Executive Officer (Principal Executive Officer)</i>
March 2, 2020	<hr/> <i>/s/</i> KHOZEMA SHIPCHANDLER Khozema Shipchandler <i>Chief Financial Officer (Principal Accounting and Financial Officer)</i>
March 2, 2020	<hr/> <i>/s/</i> RICHARD DALZELL Richard Dalzell <i>Director</i>
March 2, 2020	<hr/> <i>/s/</i> BYRON DEETER Byron Deeter <i>Director</i>
March 2, 2020	<hr/> <i>/s/</i> ELENA DONIO Elena Donio <i>Director</i>
March 2, 2020	<hr/> <i>/s/</i> DONNA L. DUBINSKY Donna L. Dubinsky <i>Director</i>
March 2, 2020	<hr/> <i>/s/</i> JEFFREY EPSTEIN Jeffrey Epstein <i>Director</i>
March 2, 2020	<hr/> <i>/s/</i> JEFFREY IMMELT Jeffrey Immelt <i>Director</i>
March 2, 2020	<hr/> <i>/s/</i> ERIKA ROTTENBERG Erika Rottenberg <i>Director</i>

Leadership

Management



Jeff Lawson
Co-Founder, CEO & Chairman



George Hu
Chief Operating Officer



Karyn Smith
General Counsel &
Corporate Secretary



Khozema Shipchandler
Chief Financial Officer



Erin Reilly
Chief Social Impact Officer



Sameer Dholakia
CEO of Twilio SendGrid



Chee Chew
Chief Product Officer



Sara Varni
Chief Marketing Officer



Christy Lake
Chief People Officer



Glenn Weinstein
Chief Customer Officer



Marc Boroditsky
Senior VP of Sales



Steve Pugh
Chief Security Officer

Board of Directors



Jeff Lawson
Co-Founder, CEO & Chairman



Rick Dalzell
Former SVP & CIO
Amazon



Byron Deeter
Partner
Bessemer Venture Partners



Elena Donio
CEO
Axiom



Donna Dubinsky
CEO
Numenta



Jeff Epstein
Operating Partner
Bessemer Venture Partners



Jeff Immelt
Venture Partner
New Enterprise Associates



Erika Rottenberg
General Counsel
Chan Zuckerberg Initiative

Auditors

KPMG LLC

Transfer agent & registrar

Computershare Trust Company, N.A.

