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

**AMENDMENT NO. 2 TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Bandwidth Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

7372
(Primary Standard Industrial
Classification Code Number)

56-2242657
(I.R.S. Employer
Identification Number)

900 Main Campus Drive
Raleigh, NC 27606
(800) 808-5150

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

David A. Morken
Chairman and Chief Executive Officer
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(800) 808-5150

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Approximate date of commencement of proposed sale to public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

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 to Section 7(a)(2)(B) of the Securities Act.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion)

Issued , 2017

Class A Shares



bandwidth

CLASS A COMMON STOCK

Bandwidth Inc. is offering _____ shares of its Class A common stock. This is our initial public offering and no public market currently exists for our shares of Class A common stock. We anticipate that the initial public offering price will be between \$ _____ and \$ _____ per share.

Following this offering, we will have two classes of authorized common stock, Class A common stock and Class B common stock. The rights of the holders of Class A common stock and Class B common stock will be identical, except with respect to voting and conversion rights. Each share of Class A common stock will be entitled to one vote per share. Each share of Class B common stock is entitled to ten votes per share and is convertible into one share of Class A common stock. Outstanding shares of Class B common stock will represent approximately _____ % of the voting power of our outstanding capital stock immediately following the completion of this offering, with our directors, executive officers and 5% stockholders, and their respective affiliates, holding approximately _____ % of the voting power of our capital stock following this offering.

We intend to apply to list our Class A common stock on the NASDAQ Global Select Market under the symbol "BAND."

Upon completion of this offering, we will not be a "controlled company" under the corporate governance rules for NASDAQ-listed companies. However, we expect we will receive the necessary regulatory approvals on or prior to January 31, 2018, which would allow us to become a controlled company. Upon receipt of such regulatory approvals, certain holders of our Class B common stock may begin to either (i) voluntarily convert their shares of Class B common stock to shares of Class A common stock on a one-for-one basis or (ii) otherwise dispose of their shares of Class B common stock, which will result in the automatic conversion of the shares of Class B common stock into shares of Class A common stock upon completion of such dispositions. In either case, the voting power of the remaining holders of Class B common stock (including David A. Morken, our cofounder and chief executive officer) will increase. The holders of our Class B common stock are not under any contractual obligation to either convert or otherwise dispose of their shares of Class B common stock. Over time, we expect that Mr. Morken's relative voting power will increase, which will allow us to become a "controlled company" under the corporate governance rules for NASDAQ-listed companies. However, we cannot provide any assurance that we will become a "controlled company" under the corporate governance rules for NASDAQ-listed companies or, if we do, on what timeline we expect that to occur. Regardless of whether we become a "controlled company" or not, we will comply with the NASDAQ corporate governance rules. Assuming conversion of Class B common stock owned by certain of our shareholders into Class A common stock, David A. Morken, our cofounder and chief executive officer, will become our controlling shareholder holding approximately _____ % of the voting power of our capital stock following this offering. See "Risk Factors—Risks Related to Our Initial Public Offering and Ownership of Our Class A Common Stock—Following the IPO-Related Reorganization, to the extent we become a "controlled company," we plan to take advantage of the applicable exemption to the corporate governance rules for NASDAQ-listed companies, which could make our Class A common stock less attractive to some investors or otherwise harm our stock price" and "The Common Stock Split and the Reorganizations."

We are an "emerging growth company" as defined under the federal securities laws and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. Investing in our Class A common stock involves risks. See "[Risk Factors](#)" beginning on page 18.

PRICE \$ _____ A SHARE

	Price to Public	Underwriting Discounts and Commissions	Proceeds to Company(1)
Per share	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____

(1) See the section titled "Underwriters" for additional information regarding compensation payable to the underwriters.

We and the selling stockholders have granted the underwriters the right to purchase up to an additional _____ shares of Class A common stock, of which 50% will be sold by us and the remaining 50% will be sold by the selling stockholders, to cover over-allotments at the initial public offering price less the underwriting discount. We will not receive any proceeds from the sale of shares by the selling stockholders.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of Class A common stock to purchasers on _____, 2017.

MORGAN STANLEY

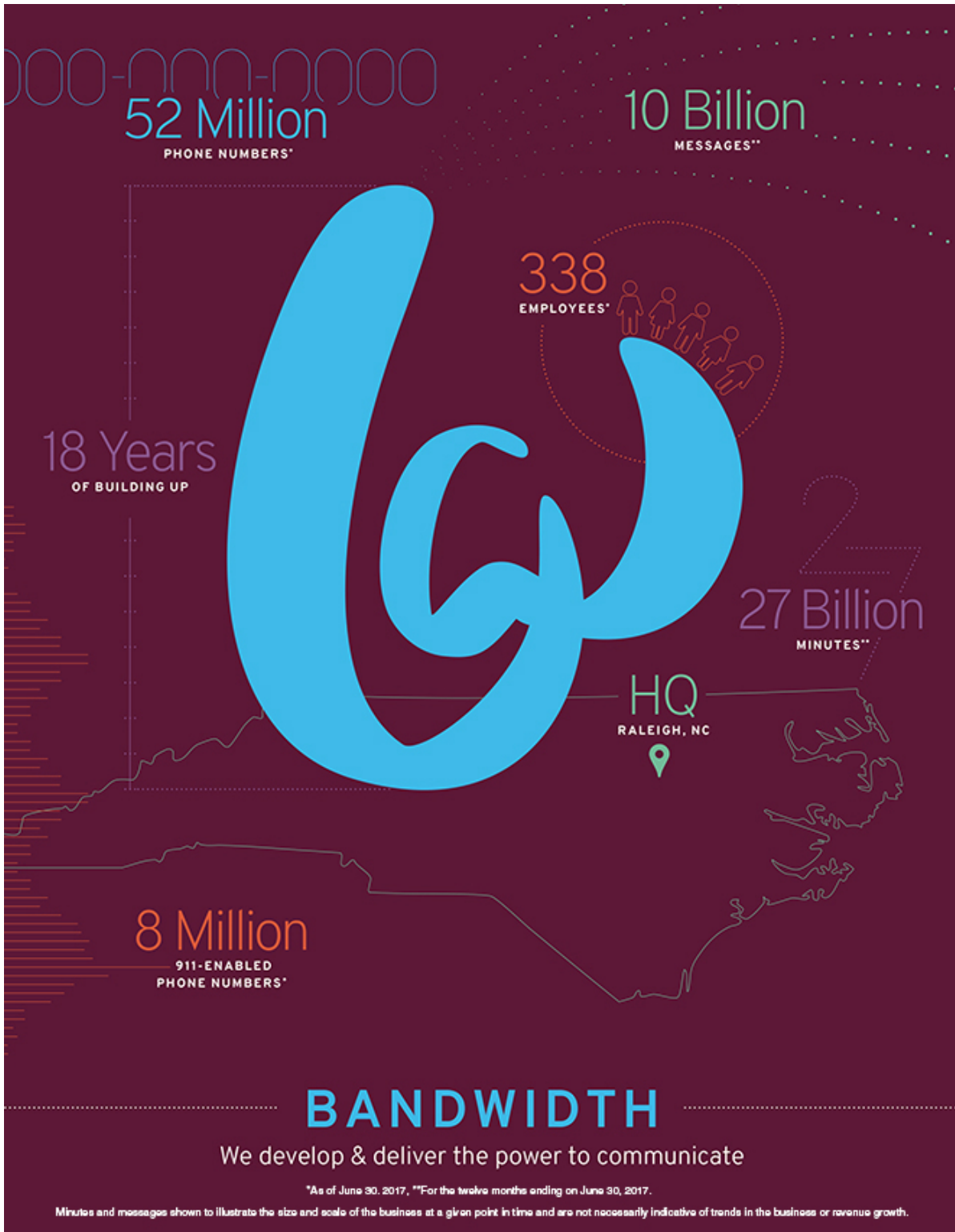
KEYBANC CAPITAL MARKETS

BAIRD

CANACCORD GENUITY

JMP SECURITIES

, 2017.







"Choosing Bandwidth's APIs built atop their own network meant we could cut out an unnecessary layer of complexity and grow adoption at an even faster rate. With our original provider, we knew scalability was going to be an issue. Bandwidth was able to support our high volume of users, without impacting deliverability or our bottom line."

Jeff Zwelling
Chief Operating Officer
ZipRecruiter



"Bandwidth shares our dedication to providing WebEx clients with the most reliable service in the conferencing industry. Their customer-centric approach to service gives us the confidence we can deliver world class services to our global customer base."

Gagan Pabla
Director of Service Operations
Cisco-WebEx



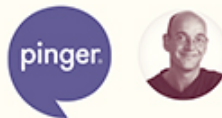
"We've worked with Bandwidth for over a decade. The Bandwidth software platform and network give us the flexibility, quality, and economics essential for our success. Call quality is the backbone of Dialpad. Without it, the freedom to connect everyone, be everywhere, and create anything doesn't stand a chance. With the help of Bandwidth, we deliver the most reliable, highest quality voice system out there."

Craig Walker
Founder & Chief Executive Officer
Dialpad



"One of our highest priorities at Rover is to deliver superior customer service; Bandwidth's telecom tools allow us provide a convenient mobile experience. SMS enables sitters and pet owners to easily communicate through channels they're used to. Bandwidth allowed us to scale and meet our growing need with minimal transition costs."

Philip Kimmey
Co-Founder & Director of Software Development
Rover.com



"Bandwidth and team are true partners. They began with us at the concept stage and delivered for us all the way through launch and beyond. These are innovative guys who are more flexible, transparent, and more agile than any network provider I've ever worked with."

Greg Woock
Founder & Chief Executive Officer
Pinger/Sideline

THE POWER TO COMMUNICATE

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Through and including (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

We and the selling stockholders have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared or have been prepared on our behalf or to which we have referred you. We, the selling stockholders and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We and the selling stockholders are offering to sell, and seeking offers to buy, shares of Class A common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of the Class A common stock.

For investors outside the United States: None of we, the selling stockholders or any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of Class A common stock and the distribution of this prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary may not contain all of the information that may be important to you. You should read the entire prospectus carefully together with our consolidated financial statements and the related notes appearing elsewhere in this prospectus before you decide to invest in our Class A common stock. This prospectus contains forward-looking statements, which involve risks and uncertainties. Our actual results could differ materially from those anticipated in such forward-looking statements as a result of certain factors, including those discussed in the “Risk Factors” and other sections of this prospectus. Unless the context otherwise requires, the terms “Bandwidth,” “the company,” “we,” “us” and “our” in this prospectus refer to Bandwidth Inc. and its consolidated subsidiaries.

OVERVIEW

Overview

We are a leading cloud-based communications platform for enterprises in the United States. Our solutions include a broad range of software application programming interfaces (“APIs”) for voice and text functionality and our owned and managed, purpose-built Internet protocol (“IP”) voice network, one of the largest in the nation. Our sophisticated and easy-to-use software APIs allow enterprises to enhance their products and services by incorporating advanced voice and text capabilities. Companies use our platform to more frequently and seamlessly connect with their end users, add voice calling capabilities to residential Internet of Things (“IoT”) devices, offer end users new mobile application experiences and improve employee productivity, among other use cases. By owning and operating a capital-efficient, purpose-built IP voice network, we are able to offer advanced monitoring, reporting and analytics, superior customer service, dedicated operating teams, personalized support, and flexible cost structures. Over the last ten years, we have pioneered the Communications platform-as-a-service (“CPaaS”) space through our innovation-rich culture and focus on empowering enterprises with end-to-end communications solutions.

As technologies evolve and new mobile applications and connected devices proliferate, enterprises must adapt and innovate their communications solutions to create a “connected” experience anywhere, anytime, on any device. Enterprises looking to capitalize on trends such as voice as an interface and application-to-person (“A2P”) messaging need solutions that are reliable, secure, scalable and cost-efficient. Most software-powered communications providers rely heavily on leased networks and cannot provide enterprise-grade service and support. We believe traditional large-scale network providers lack the capabilities to build robust software platforms for agile development of communications solutions. Enterprises focus on their core businesses and lack the technical know-how or strategic flexibility to build the customized solutions they require in-house. As a result, enterprises need a third-party, end-to-end, cloud-based software solution that eliminates the complexity and expense of building and maintaining their own communications platform.

Our solutions address enterprises’ communications needs, and we believe they are shaping the future of how enterprises connect through embedded voice and text for applications and devices. At the core of our solutions are our communications software APIs, which allow companies to build products and services on top of our cloud-based, out-of-the-box software. Our software APIs include pre-defined functions that are easily customizable for specific use cases without the challenge and expense of building and deploying complex code. Moreover, our platform collects and analyzes terabytes of call and messaging data records in real-time and provide a seamless integration to CRM and Business Intelligence analytics tools to provide meaningful data driven actionable insights for critical business decisions. Customers can then launch and scale applications and solutions with reliability using our own nationwide IP voice network. Our voice software APIs allow enterprises to make and receive phone calls and create advanced voice experiences. Integration with our purpose-built IP

voice network ensures enterprise-grade functionality and secure, high-quality connections. Our messaging software APIs provide enterprises with advanced tools to connect with end users via messaging. Our customers also use our solutions to enable 911 response capabilities, real-time provisioning and activation of phone numbers and toll-free number messaging.

We are the only CPaaS provider in the industry with our own nationwide IP voice network, which we have purpose-built for our platform. Our network is capital-efficient and custom-built to support the applications and experiences that make a difference in the way enterprises communicate. Since a communications platform is only as strong as the network that backs it, we believe our network provides a significant competitive advantage in the control, quality, pricing power and scalability of our offering. We are able to control the quality and provide the support our customers expect, as well as efficiently meet scalability and cost requirements.

Our customers currently include only enterprises, which includes large enterprises, small and medium-sized businesses, emerging technology companies and any other business. Our customers operate in a diverse set of industries, including technology, communications, hospitality and services, that need to launch and scale robust communications experiences. Our customers choose Bandwidth because we empower them to embed seamless communications within their products and services in a reliable, flexible, scalable and cost-efficient manner. Our customers include Google Voice, Microsoft Office 365 Skype for Business, Dialpad, GoDaddy, Kipsu, Rover and ZipRecruiter, among many others. We do not currently have any consumer or residential customers, although our enterprise customers may utilize our solutions to serve their own consumer or residential customers or end users.

Our usage-based revenue model allows us to grow with our customers and increase our revenue base as our customers deepen their usage of our solutions. Our CPaaS customers increased use of our platform from no minutes or messages in 2008 to 27 billion minutes and 10 billion messages in the twelve months ended June 30, 2017. Our dollar-based net retention rate, which measures our customers' increased utilization of our platform, was 115%, 111% and 107% for the year ended December 31, 2015 and 2016 and the six months ended June 30, 2017, respectively. See “—Key Performance Indicators” for an explanation of how we calculate our dollar-based net retention rate.

We have continued growing our business in recent periods. For the years ended December 31, 2015 and 2016 and the six months ended June 30, 2017, our revenue was \$137.8 million, \$152.1 million and \$79.2 million, respectively, and our net (loss) income was \$(6.7) million, \$22.4 million and \$4.9 million, respectively.

INDUSTRY BACKGROUND

Communications are the Heartbeat of How Enterprises Operate, Drive Growth and Innovate

Communications have reached a tipping point as enterprises are embedding mission-critical communications functions in their products and services. With the unprecedented growth of mobile technologies and connected devices that comprise the IoT, enterprises compete to provide real-time value to their customers across a myriad of devices. Enterprises seeking to effectively operate, drive growth and innovate must navigate the convergence of software-powered communications and the proliferation of mobile applications and smart devices that create a “connected” experience.

Additionally, voice-first user interfaces built on artificial intelligence (“AI”) technology are becoming a natural extension of existing voice-enabled devices such as mobile phones. According to comScore, as of Q2 2017, one in two smartphone users in the United States uses voice technology on their smartphones. Of those smartphone users, 49% use it weekly and 34% use it daily. Additionally, as of March 2017, smart speakers, such

as Amazon Echo or Google Home, were in 8% of connected homes in the United States. According to Gartner, by 2018, more than 2 billion people will use conversational AI to interact with virtual personal assistants (“VPAs”), virtual customer assistants and other AI-enabled smartphones and connected devices on a regular basis. By 2020, more than 50% of cloud interactions in homes with VPA speakers will be conversational.

Enterprises Today Operate in Real-Time with Distributed Architectures

Successful enterprises today are focused on innovating their core product offerings and building a strategic advantage to reach and empower their customers. Enterprises are adopting a distributed approach in deploying cloud-based third-party software solutions. As a result, rapidly proliferating mobile technologies, big data and cloud-based software services have transformed how these enterprises can run their businesses. Additionally, organizations can customize their offerings to customers by building on top of cloud-based, out-of-the-box software APIs. Third-party, cloud-based solutions eliminate the complexity and cost of building and maintaining their own communications solution.

Communications Solutions are Still a Challenge for Enterprises

Large enterprises and small and medium-sized businesses struggle to build, deploy and manage their own software-powered communications platforms. As communications have grown more sophisticated and complex, software-based APIs have become the backbone for core communications functions such as provisioning and porting phone numbers, A2P voice and messaging services, and 911 services at scale. Enterprises focus on their core businesses and lack the technical know-how or strategic flexibility to build, customize and scale these software APIs from the ground up.

Enterprises seeking to embed end-to-end communications solutions can turn to other software-powered communications providers or traditional large-scale network providers. Neither fully addresses the complex needs of the enterprise. Enterprises require the versatility of a cloud-based software platform coupled with the reliability of a network provider to address their end-to-end communications requirements.

OUR MARKET OPPORTUNITY

To establish and maintain their competitive advantage, enterprises need to be able to leverage cloud-based software that enables superior communications products and experiences. Software is redefining communications, and CPaaS solutions are becoming critical to business communications. CPaaS allows enterprises to leverage the latest software-based tools without significant investments in their own communications solution or the need to maintain relationships with large-scale network providers.

The CPaaS market is large and rapidly growing. According to International Data Corporation (“IDC”), the global CPaaS market will be \$8.2 billion in 2021. We focus on the CPaaS market in the United States, which comprises the majority of the market opportunity in the near term. Ovum estimates that there will be 348 billion minutes of over-the-top Voice-over Internet Protocol (“VoIP”) calls in the United States in 2017 and 742 billion in 2021. Ovum also estimates that 181 billion A2P messages will be sent in the United States in 2017 and 179 billion in 2021. Assuming our current market pricing, we estimate our addressable market of minutes of over-the-top VoIP calls and messages to be \$3.3 billion for those services in 2017 and \$6.2 billion in 2021, a compound annual growth rate of 17%. Market growth will be driven by enterprise demand for cloud applications and the need to integrate communications services into any workflow, customer-facing application or business process.

Furthermore, we believe the rapid evolution of technologies, which is delivering new and innovative messaging and voice solutions, will bolster the need for our software-powered communications platform in a variety of new use cases:

- *Rise of Voice as an Interface.* We believe that the shift from a text-driven interface to an increasingly voice-driven interface will further expand our total addressable market. VPAs such as Amazon’s Alexa, Google’s Assistant, Microsoft’s Cortana, Apple’s Siri and Facebook’s M are examples of the first widely adopted user interface since the keyboard, mouse and touchscreen.
- *Integration of Voice Within Applications.* Over the last decade, voice calling has migrated away from single-purpose devices such as a desk phone or a smartphone to a fully integrated solution within enterprise applications such as Google Suites, Microsoft Office 365, Facebook Workplace and Slack. Enterprise users communicate and collaborate using these applications, which use software-powered communications platforms such as our Bandwidth Communications Platform to carry out the calling and messaging functionalities.

OUR PLATFORM

Our Bandwidth Communications Platform empowers enterprises to create and scale voice or text communications services across any application and device. Our software platform and IP voice network enable our enterprise customers to rapidly develop and deploy real-time and mission-critical, software-powered communications solutions. Our sophisticated and easy-to-use software APIs allow enterprises to enhance their products and services by incorporating advanced voice and text capabilities. By owning and operating a capital-efficient, purpose-built IP voice network, we are able to offer advanced monitoring, reporting and analytics, superior customer service, dedicated operating teams, personalized support and flexible cost structures.

Our cloud-based platform is a proprietary CPaaS offering consisting of voice and messaging solutions:

- *Voice Software API.* We provide flexible software APIs that are used to build voice calling within applications, innovative call flows between users or machines, call recording, text-to-speech for interactive voice response, call detail records, conference calling or bridging and more. We provide the ability to have customized high-quality call routing for business voice use cases and global reach. Our voice quality monitoring service provides tools and processes for network quality tests and proactive tuning.
- *Messaging API.* Our software APIs for messaging deliver a complete wireless experience, including: delivery receipts, SMS, MMS, long text support, emoji support and bi-directional unicode (international characters) and short codes interoperability.
- *911 Software API.* We are the only software platform that provides complete communications solutions with integrated 911 services. We can instantly connect numbers or applications to emergency services with reliable and accurate emergency routing. Our Dynamic Geospatial Routing uses geocoding to enable real-time routing based on X,Y coordinates of the caller and defined Public Safety Access Point boundaries. Our Advanced “Next Generation 911” “i3”-ready NENA i2 “Enhanced” service network covers approximately 98% of the U.S.

OUR COMPETITIVE STRENGTHS

In our 18 years of business, we have prided ourselves on maintaining a start-up culture and our focus on continuous innovation. We have innovated on our CPaaS offerings to empower our enterprise customers with the most comprehensive software-powered communications platform that integrates seamlessly with one of the largest IP voice networks in the U.S. that we have built and operate. Our innovation-rich culture, customer-centric solutions and track record of successful execution provide us with the following competitive strengths:

- *Highly Scalable Platform Built for the Enterprise.* We built our Bandwidth Communications Platform from the ground up as an enterprise-grade cloud application. As a result, our deployment is fast, our software APIs are flexible and easy-to-use, and we enable enterprises to launch and scale on day one. Our software APIs allow the enterprise customers we serve to grow with flexibility and seamlessly embed communications in their applications or devices. Our scalable platform allows us to serve large-scale Internet companies and cloud service providers.
- *Broadest, Most Complete Solutions in the Industry.* We provide enterprises the broadest, most complete communications services solutions in the industry through our integrated software and IP voice network. Our large library of voice and text APIs enables our customers to incorporate into their products and services a broad range of capabilities not otherwise attainable.
- *Purpose-Built IP Voice Network.* Our Bandwidth Communications Platform’s IP voice network, which we own and operate nationwide, supports our ability to scale at a reliable and consistent quality for the

enterprises we serve. The control and scale we have over our own IP voice network integrated with our Bandwidth Communications Platform provides us distinct competitive advantages that include consistent high quality, in-depth enterprise support, real-time network visibility and economies of scale. Our IP voice network supported approximately 27 billion minutes and 10 billion messages for the twelve months ended June 30, 2017 and approximately 52 million active phone numbers and 8 million 911-enabled phone numbers as of June 30, 2017.

- *Deep Experience and Expertise in Voice and Messaging.* The combination of our versatile software API platform and our IP voice network control allows us to offer not just best efforts, but best-in-class voice and messaging solutions for enterprises. Our senior leadership team has a combined 135 years of industry experience and an average tenure with Bandwidth of almost 10 years. Additionally, we have approximately 80 full-time software developers and engineers focused on voice and messaging, which represents approximately 25% of our employees.
- *Growing, Long-Term Relationships with Low Customer Churn.* We deliver comprehensive solutions that address the unique and complex needs of the enterprises we serve. As a result, these enterprises have continued to innovate and grow with our platform over extended timeframes. Our relationship with each of the enterprises we serve often expands across different product suites, divisions and use cases over time. Our customers include large enterprises and small and medium-sized businesses across various industries, and we rarely lose customers that have been on our platform for more than three months. For example, our largest enterprise customer has been on our platform for more than ten years. Based on surveys conducted after customer interactions, since January 1, 2017, our customers have expressed a 97% satisfaction rate.
- *CPaaS-Based 911 Network Capabilities.* We believe we are the only CPaaS software provider with 911 capabilities. We believe our 911 capabilities provide a significant advantage as compared to software platform providers that are enabling residential voice services through new connected device experiences. Moreover, our dynamic geospatial routing capability routes 911 calls based on a real-time location of the caller to produce industry-leading results.

OUR GROWTH STRATEGY

- *Grow Our Enterprise Customer Base.* We believe that there is a substantial opportunity to increase our enterprise customer base across a broad range of industries and companies. Building on our strong sales and marketing efficiency foundation of 181% in 2016, we plan to continue to grow and invest in our direct sales force and marketing to increase our enterprise customer base. Sales and marketing efficiency is calculated by taking CPaaS revenue for the year ended December 31, 2016 less CPaaS revenue for the equivalent period in the prior year and dividing it by sales and marketing expenses for the year ended December 31, 2015.
- *Expand Existing Enterprise Relationships.* We will continue to expand our relationships with our existing enterprise customers. For example, enterprises often initially purchase only our voice solution and later expand to also purchase our messaging and 911 services. Additionally, we are able to help enterprises scale efficiently and offer their solutions to more of their customers as they grow.
- *Continue to Innovate Our Platform.* We are committed to building on our track record of leveraging our innovative product capabilities to meet our customers' needs, just as we have done for 18 years, through dramatic waves of change in communications technology. We were early to deploy software-based networks and to offer hosted cloud-based voice services, while building out one of the fastest growing IP voice networks over the last ten years. Our team has continued to adapt to a dynamic environment to grow our business, and we intend to invest in continued development of our platform

and product features to support new use cases such as VPAs and help our enterprise customers succeed as communications technologies evolve.

- *Continue Our Focus on Enterprise Customer Satisfaction.* We intend to continue focusing on delivering world-class services and support to the enterprises we serve to ensure a high level of satisfaction. We believe that satisfied customers provide vital product feedback, purchase additional services, renew contracts at a high rate and provide broad advocacy and new customer referrals for our business.
- *Explore the Development and Growth of Our International Offerings.* Today, our international services are limited to outbound international calling and outbound international messaging. Some of our enterprise customers operate globally or have plans to do so. While we do not have specific expansion plans, we are actively exploring opportunities, including those where we might have a cost or quality advantage in serving our customers.
- *Pursue Acquisitions and Strategic Investments Selectively.* We may selectively pursue acquisitions and strategic investments in businesses and technologies that strengthen our platform.

RISK FACTORS

Our business is subject to numerous risks and uncertainties, including those highlighted in the section titled “Risk Factors” immediately following this prospectus summary. Some of these risks are:

- The market in which we participate is highly competitive, and if we do not compete effectively, our business, results of operations and financial condition could be harmed.
- 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.
- The market for some of our services 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 services.
- If we do not develop enhancements to our services and introduce new services that achieve market acceptance, 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.
- If we are not able to maintain and enhance our brand and increase market awareness of our company and services, then our business, results of operations and financial condition may be adversely affected.
- The communications industry faces significant regulatory uncertainties and the resolution of these uncertainties could harm our business, results of operations and financial condition.
- The trading price of our Class A common stock may be volatile, and you could lose all or part of your investment.
- The dual class structure of our common stock will have the effect of concentrating voting control with those stockholders who held our capital stock prior to the completion of this offering, including our directors, executive officers and significant stockholders who will hold in the aggregate % of the voting power of our capital stock following the completion of this offering. This will limit or preclude your ability to influence corporate matters, including the election of directors, amendments to our organizational documents and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval.

CORPORATE INFORMATION

We are incorporated under the laws of the State of Delaware. Our principal executive offices are located at 900 Main Campus Drive, Suite 500, Raleigh, North Carolina 27606, and our telephone number is (800) 808-5150. Our website address is www.bandwidth.com. Our website and the information contained on, or that can be accessed through, our website are not part of this prospectus.

IMPLICATIONS OF BEING AN EMERGING GROWTH COMPANY

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”). We will remain an emerging growth company until the earlier of (1) December 31, 2022 (the last day of the fiscal year following the fifth anniversary of our initial public offering), (2) the last day of the fiscal year in which we have total annual gross revenue of at least \$1.07 billion, (3) the last day of the fiscal year in which we are deemed to be a “large accelerated filer,” as defined in the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and (4) the date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three-year period. Any reference herein to “emerging growth company” has the meaning ascribed to it in the JOBS Act.

An emerging growth company may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- being permitted to present only two years of audited financial statements and only two years of related “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this prospectus;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements, including in this prospectus; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We have elected to take advantage of certain of the reduced disclosure obligations in this prospectus and may elect to take advantage of other reduced reporting requirements in our future filings with the Securities and Exchange Commission (“SEC”). As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

The JOBS Act also provides that an emerging growth company can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

THE OFFERING

Class A common stock offered by us	shares
Class A common stock to be outstanding after this offering	shares
Class B common stock to be outstanding after this offering	shares
Option to purchase additional shares of Class A common stock	shares
Voting power of our Class A common stock	Outstanding shares of our Class A common stock will represent approximately % of the voting power of our capital stock after this offering.
Use of proceeds	<p>We estimate that the net proceeds from the sale of shares of our Class A common stock in this offering will be approximately \$ million (or approximately \$ million if the underwriters' option to purchase additional shares of our Class A common stock from us and the selling stockholders is exercised in full), based upon the initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.</p> <p>We intend to use the net proceeds from this offering for working capital and general corporate purposes, including further expansion of our sales and marketing and research and development ("R&D"), to repay indebtedness and for capital expenditures. In addition, we may use a portion of the proceeds from this offering for strategic acquisitions of, or investments in, complementary businesses, technologies or other assets, although we currently have no agreements, commitments or understandings with respect to any such transaction. We will not receive any proceeds from the sale of shares by the selling stockholders. For more information about the selling stockholders, see "Principal and Selling Stockholders."</p> <p>KeyBanc Capital Markets Inc. and certain of its affiliates are lenders and/or agents under our Credit and Security Agreement, dated as of November 4, 2016 (our "credit facility"), as well as an underwriter in this offering and, to the extent proceeds from this offering are used to repay amounts outstanding thereunder, will receive a portion of the net proceeds from this offering in connection with the repayment of our credit facility. See "Use of Proceeds" for additional information.</p>

The common stock split and the reorganizations

Prior to this offering, we had three classes of shares: (1) Series A Redeemable Convertible Preferred Stock (“Series A preferred stock”), (2) Class A voting common stock (“Old Class A common stock”) and (3) Class B non-voting common stock (“Old Class B common stock”). On October 23, 2017, we filed an amendment to our first amended and restated certificate of incorporation that provided for a 2.50-for-1 split of each class of our common stock (the “common stock split”). Both our Series A preferred stock and our Old Class A common stock had one vote per share. Following approval of our second amended and restated certificate of incorporation by our board of directors and each class of our capital stock and immediately prior to its effectiveness, our Series A preferred stock will convert into 2.50 shares of our Old Class A common stock. Upon the effectiveness of our second amended and restated certificate of incorporation and the effectiveness of our second amended and restated bylaws, each of which will occur prior to the pricing of this offering, (i) each share of our Old Class A common stock will be reclassified as one share of Class B common stock and will have ten votes per share, (ii) each share of our Old Class B common stock will be reclassified as one share of Class A common stock with one vote per share and (iii) options and warrants exercisable into our Old Class A common stock and Old Class B common stock will become exercisable into Class B common stock and Class A common stock, respectively (collectively, the “Pre-IPO Reorganization”).

We have received regulatory approval from the Federal Communications Commission (“FCC”) and expect to receive regulatory approvals from various state public utility commissions on or prior to January 31, 2018, which would allow us to become a controlled company in the future. Upon receipt of such “regulatory approvals,” certain holders of our Class B common stock may begin to either (i) voluntarily convert their shares of Class B common stock to shares of Class A common stock on a one-for-one basis or (ii) otherwise dispose of their shares of Class B common stock, which will result in the automatic conversion of the shares of Class B common stock into shares of Class A common stock upon completion of such dispositions. In either case, the voting power of the remaining holders of Class B common stock (including David A. Morken, our cofounder and chief executive officer) will increase. Over time, we expect that Mr. Morken’s relative voting power will increase, which will allow us to become a “controlled company” under the corporate governance rules for NASDAQ-listed companies (the “IPO-Related Reorganization”).

Voting rights

Upon completion of the IPO-Related Reorganization, we expect that we will become a “controlled company” under the corporate governance rules for NASDAQ-listed companies and will be controlled by Mr. Morken, who is expected to hold approximately % of the voting power of our outstanding capital stock. Holders of shares of Class B common stock are not required to convert their shares of Class B common stock to shares of Class A common stock or otherwise dispose of their shares of Class B common stock, and therefore, we cannot assure you that a sufficient number of shares of Class B common stock will convert into Class A common stock or, if they do, on what timeline we expect that to occur. If a sufficient number do not convert, we will not become a controlled company under the corporate governance rules for NASDAQ-listed companies. Regardless of whether we become a “controlled company” or not, we will comply with the NASDAQ corporate governance rules. See “Risk Factors—Risks Related to Our Initial Public Offering and Ownership of Our Class A Common Stock—Following the IPO-Related Reorganization, to the extent we become a “controlled company,” we plan to take advantage of the applicable exemption to the corporate governance rules for NASDAQ-listed companies, which could make our Class A common stock less attractive to some investors or otherwise harm our stock price.” If and when we become a controlled company, Mr. Morken will have the ability to control the outcome of matters submitted to our stockholders for approval, including the election of our directors and the approval of any change of control transaction. See “The Common Stock Split and the Reorganizations” and “Description of Capital Stock” for more information.

Immediately prior to this offering, we will have two classes of authorized common stock, Class A common stock and Class B common stock. The rights of the holders of Class A common stock and Class B common stock will be identical, except with respect to voting and conversion rights. Each share of Class A common stock will be entitled to one vote per share. Each share of Class B common stock is entitled to ten votes per share and is convertible into one share of Class A common stock. Outstanding shares of Class B common stock will represent approximately % of the voting power of our outstanding capital stock immediately following the completion of this offering, with our directors, executive officers, and 5% stockholders, and their respective affiliates, holding approximately % of the voting power of our capital stock following this offering.

Directed share program	At our request, the underwriters have reserved up to _____ shares of our Class A common stock, or approximately 2.5% of the shares of Class A common stock being offered by us pursuant to this prospectus, for sale at the initial public offering price to our directors, officers and employees and certain other persons associated with us, as designated by us. The number of shares of Class A common stock available for sale to the general public will be reduced to the extent that these individuals purchase all or a portion of the reserved shares of Class A common stock. Any reserved shares of Class A common stock not so purchased will be offered by the underwriters to the general public on the same basis as the other shares of Class A common stock offered by this prospectus. For further information regarding our directed share program, please see “Underwriters.”
Risk factors	See the section titled “Risk Factors” and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our Class A common stock.
Proposed symbol	“BAND”

After the completion of the common stock split and after giving effect to the Pre-IPO Reorganization, the total number of shares of our Class A and Class B common stock outstanding after this offering is based on 34,840 shares of our Class A common stock and 13,586,454 shares of our Class B common stock outstanding, as of September 30, 2017, and excludes:

- 3,315,487 shares of our Class A common stock issuable upon the exercise of outstanding options as of September 30, 2017 at a weighted-average exercise price of \$7.00 per share;
- 347,399 shares of our Class B common stock issuable upon the exercise of outstanding options as of September 30, 2017 at a weighted-average exercise price of \$5.80 per share;
- no shares of our Class B common stock reserved for future issuance under our 2001 Stock Option Plan, 115,292 shares of our Class A common stock reserved for future grant or issuance under our 2010 Equity Compensation Plan and _____ shares of our Class A common stock reserved for future grant or issuance under our 2017 Incentive Award Plan; and
- 64,691 shares of our Class B common stock issuable upon the exercise of outstanding warrants as of September 30, 2017 at a weighted-average exercise price of \$2.31 per share.

Unless otherwise stated, information in this prospectus (except for the historical financial statements) assumes:

- completion of the Pre-IPO Reorganization;
- no exercises of options or warrants outstanding as of September 30, 2017; and
- no exercise by the underwriters of their option to purchase up to an additional _____ shares of our Class A common stock from us and the selling stockholders.

SUMMARY CONSOLIDATED FINANCIAL INFORMATION

The following tables set forth a summary of our historical consolidated financial data as of, and for the periods ended on, the dates indicated. The consolidated statements of operations data for the years ended December 31, 2015 and 2016 and the consolidated balance sheets as of December 31, 2015 and 2016 are derived from our audited consolidated financial statements included elsewhere in this prospectus. The consolidated statements of operations data for the six months ended June 30, 2016 and 2017 and the consolidated balance sheet data as of June 30, 2017 are derived from our unaudited consolidated financial statements included elsewhere in this prospectus. We have prepared the unaudited consolidated financial statements on the same basis as the audited consolidated financial statements and have included all adjustments, consisting only of normal recurring adjustments that, in our opinion, are necessary to state fairly the financial information set forth in those statements. You should read this data together with our consolidated financial statements and related notes appearing elsewhere in this prospectus and the information in “Selected Consolidated Financial and Other Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Our historical results are not necessarily indicative of our future results, and the results of operations for the six months ended June 30, 2017, are not necessarily indicative of the results to be expected for the full year or any other period. The summary consolidated financial data in this section are not intended to replace the consolidated financial statements and are qualified in their entirety by the consolidated financial statements and related notes included elsewhere in this prospectus.

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
(In thousands, except share and per share amounts)				
Consolidated Statements of Operations Data:				
Revenue:				
CPaaS revenue	\$ 101,502	\$ 117,078	\$ 56,651	\$ 63,194
Other revenue	36,299	35,057	18,118	15,957
Total revenue	137,801	152,135	74,769	79,151
Cost of revenue:				
CPaaS cost of revenue	64,760	71,218	35,379	37,147
Other cost of revenue	14,482	14,000	7,283	6,713
Total cost of revenue	79,242	85,218	42,662	43,860
Gross profit	58,559	66,917	32,107	35,291
Operating expenses:				
Research and development	7,375	8,520	3,767	5,091
Sales and marketing	8,620	9,294	4,458	4,971
General and administrative	34,602	33,859	15,672	15,894
Total operating expenses	50,597	51,673	23,897	25,956
Operating income	7,962	15,244	8,210	9,335
Other expense:				
Interest expense, net	(589)	(908)	(369)	(859)
Change in fair value of shareholders' anti-dilutive arrangement ⁽¹⁾	—	—	—	(553)
Total other expense	(589)	(908)	(369)	(1,412)
Income from continuing operations before income taxes	7,373	14,336	7,841	7,923
Income tax (provision) benefit	(408)	11,094	(269)	(2,987)
Income from continuing operations	6,965	25,430	7,572	4,936
Loss from discontinued operations, net of income taxes	(13,665)	(3,072)	(3,011)	—
Net (loss) income	\$ (6,700)	\$ 22,358	\$ 4,561	\$ 4,936
Income from continuing operations attributable to common stockholders	\$ 6,034	\$ 22,075	\$ 6,565	\$ 4,291
Income from continuing operations attributable to participating securities	931	3,355	1,007	645
Net income from continuing operations per share attributable to common stockholders, basic	\$ 0.52	\$ 1.89	\$ 0.57	\$ 0.36
Weighted-average outstanding shares used in computing net income from continuing operations per share attributable to common stockholders, basic	11,497,727	11,678,568	11,580,783	11,806,619
Net income from continuing operations per share attributable to common stockholders, diluted	\$ 0.48	\$ 1.72	\$ 0.51	\$ 0.33
Weighted-average outstanding shares used in computing net income from continuing operations per share attributable to common stockholders, diluted	12,456,540	12,870,632	12,820,334	12,977,606
Pro forma income from continuing operations per share attributable to common stockholders, basic ⁽²⁾	\$ 0.52	\$ 1.89	\$ 0.57	\$ 0.36
Weighted-average outstanding shares used in computing pro forma income from continuing operations per share attributable to common stockholders, basic ⁽²⁾	13,272,727	13,453,568	13,355,783	13,581,619
Pro forma income from continuing operations per share attributable to common stockholders, diluted ⁽²⁾	\$ 0.49	\$ 1.74	\$ 0.52	\$ 0.33
Weighted-average outstanding shares used in computing pro forma income from continuing operations per share attributable to common stockholders, diluted ⁽²⁾	14,231,540	14,645,632	14,595,334	14,572,606

	As of December 31,		As of
	2015	2016	June 30, 2017
(In thousands)			
Consolidated Balance Sheets Data:			
Cash and cash equivalents	\$ 10,059	\$ 6,788	\$ 5,679
Working capital	(26,972)	(2,427)	4,449
Property and equipment, net	10,257	11,180	11,562
Total assets	63,146	69,973	68,238
Total stockholders' deficit	(19,074)	(22,374)	(16,839)

- (1) Relates to anti-dilutive arrangements with certain of our shareholders. See Note 2 to our consolidated financial statements included elsewhere in this prospectus.
- (2) Pro forma earnings per share data give effect to the Pre-IPO Reorganization. This pro forma earnings per share data is presented for informational purposes only and does not purport to represent what our pro forma net income (loss) or earnings (loss) per share actually would have been had the Pre-IPO Reorganization occurred on January 1, 2015 or to project our net income or earnings per share for any future period.

KEY PERFORMANCE INDICATORS

We monitor the following key performance indicators (“KPIs”) to help us evaluate our business, identify trends affecting our business, formulate business plans, and make strategic decisions. We believe the following KPIs are useful in evaluating our business:

	Year ended December 31, 2015	Year ended December 31, 2016	Six months ended June 30, 2016	Six months ended June 30, 2017
(Dollars in thousands)				
Number of active CPaaS customer accounts (as of balance sheet date)(a)	704	798	756	865
Dollar-based net retention rate(b)	115%	111%	112%	107%
Adjusted EBITDA(c)	\$ 18,912	\$ 23,470	\$ 12,269	\$ 12,655
Adjusted net (loss) income(c)	\$ (2,305)	\$ 23,968	\$ 5,659	\$ 5,747
Free cash flow(c)	\$ 13,549	\$ 10,881	\$ 7,185	\$ 2,285

- (a) We believe that the number of active CPaaS customer accounts is an important indicator of the growth of our business, the market acceptance of our platform and our future revenue trends. We define an active CPaaS 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 \$100 of revenue in the last month of the period. We believe that the use of our platform by active CPaaS customer accounts at or above the \$100 per month threshold is a stronger indicator of potential future engagement than trial usage of our platform at levels below \$100 per month. A single organization may constitute multiple unique active CPaaS customer accounts if it has multiple unique account identifiers, each of which is treated as a separate active CPaaS customer account. Customers who pay after using our platform and customers that have credit balances are included in the number of active CPaaS customer accounts. Customers from our Other segment are excluded in the number of active CPaaS customer accounts, unless they are also CPaaS customers. In each of the years ended December 31, 2015 and 2016 and the six months ended June 30, 2017, revenue from active CPaaS customer accounts represented approximately 99% of total CPaaS revenue.
- (b) Our ability to drive growth and generate incremental revenue depends, in part, on our ability to maintain and grow our relationships with our existing customers that generate CPaaS revenue and seek to increase their use of our platform. We track our performance in this area by measuring the dollar-based net retention rate for our customers who generate CPaaS revenue. Our dollar-based net retention rate compares the CPaaS revenue from customers in a quarter to the same quarter in the prior year. To calculate the dollar-based net retention rate, we first identify the cohort of customers that generate CPaaS revenue and that were customers in the same quarter of the prior year. The dollar-based net retention rate is obtained by dividing the CPaaS revenue generated from that cohort in a quarter, by the CPaaS revenue generated from that same cohort in the corresponding quarter in the prior year. When we calculate dollar-based net retention rate for periods longer than one quarter, we use the average of the quarterly dollar-based net retention rates for the quarters in such period.

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Our dollar-based net retention rate increases when such customers increase usage of a product, extend usage of a product to new applications or adopt a new product. Our dollar-based net retention rate decreases when such customers cease or reduce usage of a product or when we lower prices on our solutions. As our customers grow their business and extend the use of our platform, they sometimes create multiple customer accounts with us for operational or other reasons. As such, when we identify a significant customer organization (defined as a single customer organization generating more than 1% of CPaaS revenue in a quarterly reporting period) that has created a new CPaaS customer, this new customer is tied to, and CPaaS revenue from this new customer is included with, the original CPaaS customer for the purposes of calculating this metric. For the six months ended June 30, 2017, our dollar-based net retention rate was 107%, compared to 112% in the same period in 2016. The primary driver of this decrease was our decision to curtail services to strategic competitors. For the year ended December 31, 2016, our dollar-based net retention rate was 111%, compared to 115% for the year ended December 31, 2015. This decrease was driven by the decision to lower pricing in exchange for longer term contracts with certain of our key customers.

- (c) We use adjusted EBITDA, adjusted net (loss) income and free cash flow for financial and operational decision making and as a means to evaluate period-to-period differences in our performance. Adjusted EBITDA, adjusted net (loss) income and free cash flow are not calculated in accordance with U.S. generally accepted accounting principles (“GAAP”) but we believe are useful for investors in evaluating our overall financial performance. We believe these measures provide useful information about operating results, enhance the overall understanding of past financial performance and future prospects and allow for greater transparency with respect to key performance indicators used by management in its financial and operational decision making. Adjusted EBITDA is a key measure used by management to understand and evaluate our core operating performance and trends, to generate future operating plans and to make strategic decisions regarding the allocation of capital. In particular, the exclusion of certain expenses in calculating adjusted EBITDA facilitates comparisons of our operating performance on a period-to-period basis.

We define adjusted EBITDA as net income or losses from continuing operations, adjusted to reflect the addition or elimination of certain income statement items including, but not limited to:

- income tax expense (benefit);
- interest expense, net;
- depreciation and amortization expense;
- stock-based compensation expense;
- impairment of intangible assets;
- loss (gain) from disposal of property and equipment; and
- change in fair value of financial instruments including any shareholder anti-dilutive arrangement.

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Income from continuing operations	\$ 6,965	\$ 25,430	\$ 7,572	\$ 4,936
Income tax expense (benefit)(1)	408	(11,094)	269	2,987
Interest expense, net	589	908	369	859
Depreciation	6,167	5,251	2,775	2,401
Amortization	908	891	446	420
Stock-based compensation	3,493	1,370	854	490
Impairment of intangible assets(2)	—	695	—	—
Loss (gain) on disposal of property and equipment	382	19	(16)	9
Change in fair value of shareholders’ anti-dilutive arrangement(3)	—	—	—	553
Adjusted EBITDA	\$18,912	\$ 23,470	\$12,269	\$12,655

- (1) Income tax benefit was \$11,094 for the year ended December 31, 2016. This benefit was primarily the result of \$14,138 of benefit being recognized due to the release of the deferred tax asset valuation allowance subsequent to the spin-off of Republic Wireless.
- (2) The impairment of intangible assets was \$695 for the year ended December 31, 2016 and was due to the Company’s evaluation that a trade name acquired during the Dash acquisition provided no further benefit.
- (3) Change in fair value of shareholders’ anti-dilutive arrangement was \$553 for the six months ended June 30, 2017 and relates to an anti-dilutive agreement which allows certain principal non-founder shareholders the ability to purchase additional shares of common stock. See Note 2, *Summary of Significant Accounting Policies, Fair Value of Financial Instruments*, for further explanation.

We define adjusted net (loss) income as net income adjusted for certain items affecting period to period comparability. Adjusted net (loss) income excludes:

- stock-based compensation;
- change in fair value of stockholders' antidilutive arrangement;
- amortization of acquired intangible assets related to the Dash acquisition;
- impairment charges of intangibles assets;
- loss (gain) on disposal of property and equipment; and
- estimated tax impact of above adjustments.

We believe that adjusted net (loss) income is a meaningful measure because by removing certain non-recurring charges and non-cash expenses we present our operating results directly associated with the period's performance. We believe the use of adjusted net (loss) income 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.

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Net (loss) income	\$(6,700)	\$22,358	\$4,561	\$4,936
Stock-based compensation	3,493	1,370	854	490
Change in fair value of stockholders' anti-dilutive arrangement(1)	—	—	—	553
Amortization of acquired intangibles	520	520	260	260
Impairment of intangible assets(2)	—	695	—	—
Loss (gain) on disposal of property and equipment	382	19	(16)	9
Estimated tax effect of adjustments(3)	—	(994)	—	(501)
Adjusted net (loss) income	<u>\$(2,305)</u>	<u>\$23,968</u>	<u>\$5,659</u>	<u>\$5,747</u>

- (1) Change in fair value of shareholders' anti-dilutive arrangement was \$553 for the six months ended June 30, 2017 and relates to an anti-dilutive agreement which allows certain principal non-founder shareholders the ability to purchase additional shares of common stock. See Note 2, *Summary of Significant Accounting Policies, Fair Value of Financial Instruments*, for further explanation.
- (2) The impairment of intangible assets was \$695 for the year ended December 31, 2016 and was due to the Company's evaluation that a trade name acquired during the Dash acquisition provided no further benefit.
- (3) The Company recorded a full valuation allowance on its net deferred tax assets as of December 31, 2015 and June 30, 2016. The income tax expense recorded in the Company's consolidated statement of operations for the aforementioned periods relates to the change in deferred tax liability for indefinite lived intangibles and various state minimum taxes. The non-GAAP adjustments would not be impacted by these tax expenses and, as a result, no tax effect has been recorded for the year ended December 31, 2015 and the six months ended June 30, 2016. The valuation allowance was released in the fourth quarter of 2016 in connection with the spin-off of Republic Wireless. For periods following the valuation allowance release, including the year ended December 31, 2016 and the six months ended June 30, 2017, the Company has calculated the income tax effect of the non-GAAP adjustments using the blended U.S. federal and state statutory rate of approximately 38.2%.

Free cash flow represents net cash provided by (used in) operating activities from continuing operations less net cash used in investing activities from continuing operations. We believe that free cash flow is a useful indicator of liquidity and provides information to management and investors about the amount of cash generated from our core operations that can be used for investing in our business. Free cash flow has certain limitations in that it does not represent the total increase or decrease in the cash balance for the period, nor does it represent the residual cash flows available for discretionary expenditures. Therefore, it is important to evaluate free cash flow along with our consolidated statements of cash flows.

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Net cash provided by operating activities from continuing operations	\$ 18,651	\$ 16,942	\$ 10,553	\$ 5,080
Net cash used in investing activities from continuing operations(1)	(5,102)	(6,061)	(3,368)	(2,795)
Free cash flow	<u>\$ 13,549</u>	<u>\$ 10,881</u>	<u>\$ 7,185</u>	<u>\$ 2,285</u>

- (1) Represents the acquisition cost of property, equipment and capitalized development costs for software for internal use.

RISK FACTORS

Investing in our Class A common stock involves a high degree of risk. You should carefully consider the following risk factors, as well as the other information in this prospectus, before deciding to invest in our Class A common stock. The occurrence of any of the following risks could harm our business, financial condition, results of operations or prospects. In that case, the trading price of our Class A common stock could decline, and you may lose all or part of your investment.

Risks Related to Our Business

The success of our growth and expansion plans depends on a number of factors that are beyond our control.

We have grown our business considerably over the last several years. We cannot guarantee that we will be able to maintain our growth or that we will choose to target the same pace of growth in the future. Our success in achieving continued growth depends upon several factors including:

- the availability and retention of qualified and effective personnel with the expertise required to sell and operate effectively or successfully;
- the overall economic health of new and existing markets;
- the number and effectiveness of competitors;
- the pricing structure under which we will be able to purchase services required to serve our customers;
- the availability to us of technologies needed to remain competitive; and
- federal and state and regulatory conditions, including the maintenance of state regulation that protects us from unfair business practices by traditional network service providers or others with greater market power who have relationships with us as both competitors and suppliers.

The market in which we participate is highly 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, 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 services. Our competitors fall into two primary categories:

- CPaaS companies, such as Twilio and Nexmo, that offer a narrower set of software APIs, less robust customer support and fewer other features while relying on third-party networks and physical infrastructure; and
- network service providers that offer limited developer functionality on top of their own networks and physical infrastructure, such as AT&T, Level 3 and Verizon.

Some of our competitors and potential competitors are larger and have greater name recognition, longer operating histories, more established customer relationships, a larger global reach, 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 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 services that address one or a limited number of functions at lower prices, with greater depth than our services or in different geographies. Our current and potential competitors may develop and

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market new services with comparable functionality to our services, and this could lead to us having to decrease prices in order to remain competitive. In addition, some of our competitors have lower list prices than us, which may be attractive to certain customers even if those services have different or lesser functionality. If we are unable to maintain our current pricing due to the competitive pressures, our margins will be reduced and our business, results of operations and financial condition would be adversely affected. Customers utilize our services in many ways, and use varying levels of functionality that our services offer or are capable of supporting or enabling within their applications. Customers that use many of the features of our services or use our services to support or enable core functionality for their applications may have difficulty or find it impractical to replace our services with a competitor's services, while customers that use only limited functionality may be able to more easily replace our services with competitive offerings.

With the introduction of new services and new market entrants, we expect competition to intensify in the future. In addition, some of our customers choose to use our services and our competitors' services at the same time. Moreover, as we expand the scope of our services, we may face additional competition. Further, customers and consumers may choose to adopt other forms of electronic communications or alternative communication platforms, including developing necessary networks and platforms in-house.

Furthermore, if our competitors were to merge such that the combined entity would be able to compete fully with our service offering, then our business, results of operations and financial condition may be adversely effected. 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, pricing pressures and increased competition generally could result in reduced revenue, reduced margins, increased losses or the failure of our services to achieve or maintain widespread market acceptance, any of which could harm our business, results of operations and financial condition.

We presently operate in the United States and provide certain limited services in Canada. Our IP voice network, which is at the core of our product offerings, is located in the United States and, absent existing or future customer demand, we have no immediate plans to expand our network internationally. Our current and potential competitors have developed and may develop in the future product solutions that are available internationally as well as domestically. To the extent that customers seek product solutions that include support and scaling internationally, they may choose to use other service providers to fill their communication service needs. Furthermore, while we believe the U.S. market is sufficiently large and expanding to allow us to continue to grow our business, we may face slower growth due to our lack of exposure to international markets. Each of these factors could lead to reduced revenue, slower growth and lower brand name recognition amongst our industry competitors, any or all of which could harm 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 services, our Bandwidth Communications Platform, and we periodically adjust the mix of our marketing programs. 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, including using a significant portion of the proceeds of this offering to expand our sales and marketing efforts as further disclosed in "Use of Proceeds." For example, our sales and marketing efficiency, which is calculated as the result of CPaaS revenue for the year ended December 31, 2016 less CPaaS revenue for the equivalent period in the prior year divided by sales and marketing expenses for the

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year ended December 31, 2015, was 181%. We cannot assure you that any new investments in sales and marketing, including any increased focus on enterprise sales efforts, will lead to the cost-effective acquisition of additional customers or increased sales or that our sales and marketing efficiency will be consistent with prior periods. 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.

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

We have been developing and providing a cloud-based platform that enables developers and organizations to integrate voice and messaging 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 future success will depend in large part on the growth, if any, of this market. For example, the utilization of software 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 services and platform. Moreover, if they do not recognize the need for and benefits of our services and platform, they may decide to adopt alternative services and/or develop the necessary services in-house to satisfy their business needs. In order to grow our business and expand our market position, we intend to focus on educating enterprise customers about the benefits of our services and platform, expanding the functionality of our services and bringing new technologies to market to increase market acceptance and use of our platform. Our ability to expand the market that our services and platform address depends upon a number of factors, including the cost, performance and perceived value associated with such services and platform. The market for our services and platform could fail to grow significantly or there could be a reduction in demand for our services and platform as a result of a lack of customer acceptance, technological changes or challenges, competing services, platforms 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 services and platform decreases, then our business, results of operations and financial condition could be adversely affected.

We must increase the network traffic and resulting revenue from the services that we offer to realize our targets for anticipated revenue growth, cash flow and operating performance.

We must increase the network traffic and resulting revenue from our inbound and outbound voice calling, text messaging, emergency voice functions, telephone numbers and related services at acceptable margins to realize our targets for anticipated revenue growth, cash flow and operating performance. If:

- we do not maintain or improve our current relationships with existing key customers;
- we are not able to expand the available capacity on our network to meet our customers' demands in a timely manner;
- we do not develop new large wholesale and enterprise customers; or
- our customers determine to obtain these services from either their own network or from one of our competitors,

then we may be unable to increase or maintain our revenue at acceptable margins.

Our business depends on customers increasing their use of our services and any loss of customers or decline in their use of our services 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 and to have them increase their usage of our Bandwidth Communications Platform. If our customers do not increase their use of our services, then our revenue may decline and our results of operations may be harmed. Customers generally are charged based on the usage of our services. 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 services at any time without penalty or termination charges. We cannot accurately predict customers' usage levels and the loss of customers or reductions in their usage levels of our services may each have a negative impact on our business, results of operations and financial condition. If a significant number of customers cease using, or reduce their usage of, our services, 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 increase the revenue that we derive from enterprises, our business, results of operations and financial condition may be adversely affected.

We currently generate all of our revenue from enterprise customers. Our ability to expand our sales to enterprise customers will depend, in part, on our ability to effectively organize, focus and train our sales and marketing personnel and 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.

With respect to enterprise customers, the decision to adopt our services may require the approval of multiple technical and business decision makers, including security, compliance, procurement, operations and IT. In addition, while enterprise customers may quickly deploy our services on a limited basis, before they will commit to deploying our services at scale, they often require extensive education about our services 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 complex, and some enterprise customers may not 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 limited product and engineering resources. Further, enterprises, including some of our customers, may choose to develop their own solutions that do not include our services. They also may demand reductions in pricing as their usage of our services increases, which could have an adverse impact on our gross margin. 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 do not develop enhancements to our services and introduce new services 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 services, increase adoption and usage of our services and introduce new services. The success of any enhancements or new services depends on several factors, including timely

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completion, adequate quality testing, actual performance quality, market-accepted pricing levels and overall market acceptance. Enhancements and new services 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 Bandwidth Communications Platform or other services or may not achieve the broad market acceptance necessary to generate significant revenue. In certain instances, the introduction of new services requires the successful development of new technology. To the extent that upgrades of existing technology are required for the introduction of new services, the success of these upgrades may be dependent on reaching mutually acceptable terms with vendors and on vendors meeting their obligations in a timely manner.

Furthermore, our ability to increase the usage of our services depends, in part, on the development of new use cases for our services, which may be outside of our control. Our ability to generate usage of additional services 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 services to meet evolving customer requirements, increase adoption and usage of our services or develop new services, or if our efforts to increase the usage of our services are more expensive than we expect, then our business, results of operations and financial condition would 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, which 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 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 pricing and billing systems are complex and errors could adversely affect our revenue and profits.

Our pricing and billing efforts are complex to develop and challenging to implement. To be profitable, we must have accurate and complete information about the costs associated with voice and text communications, and properly incorporate such information into our pricing model. Our pricing model must also reflect accurate and current information about the market for our services, including the pricing of competitive alternatives for our services, as well as reliable forecasts of traffic volume. We may determine pricing for our services based on data that is outdated or otherwise flawed. Even if we have complete and accurate market information, we may not set prices to optimize both revenue and profitability. If we price our services too high, the amount of traffic that our customers may route to our network may decrease and accordingly our revenue may decline. If we price our services too low, our margins may be adversely affected, which will reduce our ability to achieve and maintain profitability.

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Additionally, we rely heavily on third parties to provide us with key software and services for our billing. If these third parties cease to provide those services to us for any reason, or fail to perform billing services accurately and completely, we may not be able to deliver accurate invoices promptly. Delays in invoicing can lead to delays in revenue recognition, and inaccuracies in our billing could result in lost revenue. If we fail to adapt quickly and effectively to changes affecting our costs, pricing and billing, our profitability and cash flow will be adversely affected.

We must continue to develop effective business support systems to implement customer orders and to provide and bill for services.

We depend on our ability to continue to develop effective business support systems. This complicated undertaking requires significant resources and expertise and support from third-party vendors. Following the development of the business support systems, the data migration must be completed for the full benefit of the systems to be realized. Business support systems are needed for:

- quoting, accepting and inputting customer orders for services;
- provisioning, installing and delivering services;
- providing customers with direct access to the information systems included in our Bandwidth Communications Platform so that they can manage the services they purchase from us, generally through web-based customer portals; and
- billing for services.

Because our business provides for continued rapid growth in the number of customers that we serve, the volume of services offered, as well as the integration of any acquired companies' business support systems, if any, we must continue to develop our business support systems on a schedule sufficient to meet proposed milestone dates. If we fail to develop effective business support systems or complete the data migration into these systems, it could materially adversely affect our ability to implement our business plans, realize anticipated benefits from our acquisitions, if any, and meet our financial goals and objectives.

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

We believe that maintaining and enhancing our brand identity and increasing market awareness of our company and services are critical to achieving widespread acceptance of our company and our Bandwidth Communications Platform, as well as 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 services and our ability to successfully differentiate our services from competing products and services. Our brand promotion activities may not be successful or yield increased revenue. In addition, independent industry analysts often provide reviews of our services and competing products and services, which may significantly influence the perception of our services in the marketplace. If these reviews are negative or not as strong as reviews of our competitors' services, then our brand may be harmed.

From time to time, our customers have complained about our services, 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 services. In addition, many of our customers post and discuss on social media about products and services, including our services and our Bandwidth Communications 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 services or our Bandwidth Communications Platform upset these customers, then their online commentary could negatively

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affect our brand and reputation. Complaints or negative publicity about us, our services or our Bandwidth Communications Platform could materially and adversely affect 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.

Any failure to deliver and maintain high-quality customer support may adversely affect our relationships with our customers and prospective customers and could adversely affect our reputation, business, results of operations and financial condition.

Many of our customers depend on our customer support team to assist them in deploying or using our services effectively, to help them 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 services. 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 existing customers. Any failure to deliver and maintain high-quality customer support, or a market perception that we do not maintain high-quality customer support, could adversely affect our reputation, business, results of operations and financial condition.

Our revenue is concentrated in a limited number of enterprise customers.

A significant portion of our revenue is concentrated among a limited number of enterprise customers. For the twelve months ended June 30, 2017, our top ten customers accounted for 29.2% of our CPaaS revenue. If we lost one or more of our top ten customers, or, if one or more of these major customers significantly decreased orders for our services, our business would be materially and adversely affected.

Breaches of our networks or systems, or those of third parties upon which we rely, could degrade our ability to conduct our business, compromise the integrity of our services and our Bandwidth Communications Platform, 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 R&D activities to our marketing and sales efforts and communications with our customers and business partners. Cyber attacks, including through the use of malware, computer viruses, dedicated denial of services attacks, credential harvesting and other means for obtaining unauthorized access to or disrupting the operation of our networks and systems and those of our suppliers, vendors and other service providers, could cause harm to our business, including by misappropriating our proprietary information or that of our customers, employees and business partners or to cause interruptions of our services and our Bandwidth Communications Platform. Cyber attacks may cause equipment failures, loss of information, including sensitive personal information of customers or employees or valuable technical and marketing information, as well as disruptions to our or our customers' operations. Cyber attacks against companies have increased in frequency, scope and potential harm in recent years. Further, the perpetrators of cyber attacks are not restricted to particular

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groups or persons. These attacks may be committed by company employees or external actors operating in any geography, including jurisdictions where law enforcement measures to address such attacks are unavailable or ineffective, and may even be launched by or at the behest of nation states. While, to date, we have not been subject to cyber attacks which, individually or in the aggregate, have been material to our operations or financial condition, the preventive actions we take to reduce the risks associated with cyber attacks, including protection of our systems and networks, may be insufficient to repel or mitigate the effects of a major cyber attack in the future. 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 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 customer proprietary network information pursuant to applicable federal law, 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 by our employees, unauthorized access or usage, virus or similar breach or disruption of us or our services providers, could result in a loss of confidential information, theft of our intellectual property, damage to our reputation, loss of customers, litigation, regulatory investigations, fines, penalties and other liabilities.

Our existing general liability insurance may not cover, or may cover only a portion of, any potential claims related to security breaches to which we are exposed or may not be adequate to indemnify us for all or any portion of liabilities that may be imposed. Accordingly, if our cybersecurity measures and those of our service providers, fail to protect against unauthorized access, attacks (which may include sophisticated cyber attacks) and the mishandling of data by our employees and contractors, then our reputation, business, results of operations and financial condition could be adversely affected.

We are currently subject to litigation related to taxes and charges associated with our provision of 911 services, which could divert management's attention and adversely affect our results of operations.

We, along with many other telecommunications companies and similar service providers, currently are subject to litigation and a civil investigation regarding our billing, collection and remittance of non-income-based taxes and other similar charges regarding 911 services alleged to apply in certain states, counties, and municipalities located in Alabama, Georgia, Illinois, Minnesota, North Carolina, Pennsylvania, Rhode Island, South Carolina and the District of Columbia. We may face similar litigation in other jurisdictions in the future. While we are vigorously defending these lawsuits, litigation is inherently uncertain. Tax assessments, penalties and interest or future requirements arising from these lawsuits, or any other lawsuits that may arise in other jurisdictions, may adversely affect our business, results of operations and financial condition.

We face a risk of litigation resulting from customer misuse of our services and software to make or send unauthorized calls and/or text messages in violation of the Telephone Consumer Protection Act.

Calls and/or text messages originated by our customers may subject us to potential risks. For example, the Telephone Consumer Protection Act of 1991 (the "TCPA") restricts telemarketing and the use of technologies that enable automatic calling and/or SMS text messages without proper consent. This may result in civil claims against us and requests for information through third-party subpoenas or regulatory investigations. The scope and interpretation of the laws that are or may be applicable to the making and/or delivery of calls and/or 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 become subject to lawsuits, fines, civil penalties, potentially significant statutory damages, consent decrees, injunctions, adverse publicity, loss of user confidence in our services, loss of users and other adverse consequences, which could materially harm our business.

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The communications industry faces significant regulatory uncertainties and the resolution of these uncertainties could harm our business, results of operations and financial condition.

If current or future regulations change, the FCC or state regulators may not grant us any required regulatory authorization or may take action against us if we are found to have provided services without obtaining the necessary authorizations, or to have violated other requirements of their rules and orders. Delays in receiving required regulatory approvals or the enactment of new adverse regulation or regulatory requirements may slow our growth and have a material adverse effect on our business, results of operations and financial condition.

Proceedings before the FCC could limit our access to various network services or further increase the rates we must pay for such services. Likewise, proceedings before the FCC could impact the availability and price of special access facilities. Other proceedings before the FCC could result in an increase in the amount we pay to other carriers or a reduction in the revenue we derive from other carriers in, or retroactive liability for, access charges and reciprocal compensation. Additionally, other proceedings before the FCC could result in increases in the cost of regulatory compliance. For example, the FCC has opened a proceeding to examine how to improve the delivery of emergency 911 services and whether to expand requirements to include communications services not currently subject to emergency calling obligations. A number of states also have proceedings pending that could impact our access to and the rates we pay for network services. Other state proceedings could limit our pricing and billing flexibility. Our business would be substantially impaired if the FCC, the courts or state commissions eliminated our access to the facilities and services we use to serve our customers, substantially increased the rates we pay for facilities and services, increased the costs or complexity associated with providing emergency 911 services or adversely affected the revenue we receive from other carriers or our customers. In addition, congressional legislative efforts to rewrite the Telecommunications Act of 1996 or enact other telecommunications legislation, as well as various state legislative initiatives, may cause major industry and regulatory changes. We cannot predict the outcome of these proceedings or legislative initiatives or the effects, if any, that these proceedings or legislative initiatives may have on our business and operations.

While we believe we are currently in compliance with all federal, state and local rules and regulations, these regulations are subject to interpretation and the relevant regulators may determine that our application of these rules and regulations is not consistent with their interpretation. Additionally, in certain instances, third parties or government agencies may bring action with federal, state or local regulators if they believe a provider has breached applicable rules and regulations.

The effects of increased regulation of IP-based service providers are unknown.

While the FCC has to date generally subjected IP-based service providers to less stringent regulatory oversight than traditional common carriers, the FCC has more recently imposed certain regulatory obligations on providers of VoIP services, including the obligations to contribute to the Universal Service Fund, to provide 911 services and/or to comply with the Communications Assistance for Law Enforcement Act. Some states have imposed taxes, fees and/or surcharges on VoIP telephony services. The imposition of additional regulations could have a material adverse effect on our business.

We must obtain and maintain permits and licenses to operate our network.

If we are unable, on acceptable terms and on a timely basis, to obtain and maintain the permits and licenses needed to expand and operate our network, our business could be materially adversely affected. In addition, the cancellation or non-renewal of the permits or licenses that are obtained could materially adversely affect our business. In particular, although we have received approval from the FCC, we are currently awaiting approval from various state public utility commissions in connection with our expected change of control (the "Necessary Approvals"). Upon the effectiveness of our second amended and restated articles of incorporation, holders of our Class B common stock will be prohibited from converting their shares of Class B common stock to Class A common stock prior to the earlier of: (i) the receipt of the Necessary Approvals and (ii) the 181st day following

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the date of this prospectus (the “Conversion Commencement Date”). If we have not received the Necessary Approvals by the Conversion Commencement Date, we will not be able to restrict holders of our Class B common stock from converting their shares of Class B common stock to Class A common stock, which may result in a change of control. If a change of control occurs prior to receipt of regulatory approval in a jurisdiction, we may be subject to fines, penalties, enforcement actions or loss of our authorization in such jurisdiction. In the event we are the target of an acquisition, the regulatory agencies responsible for granting, renewing or transferring permits and licenses may delay or reject applications to transfer such permits or licenses and as a result these uncertainties, we may not be as attractive an acquisition target.

Our operations are subject to regulation and require us to obtain and maintain several governmental licenses and permits. If we violate those regulatory requirements or fail to obtain and maintain those licenses and permits, including payment of related fees, if any, we may not be able to conduct our business. Moreover, those regulatory requirements could change in a manner that significantly increases our costs or otherwise adversely affects our operations.

In the ordinary course of operating our network and providing our services, we must obtain and maintain a variety of telecommunications and other licenses and authorizations. We also must comply with a variety of regulatory obligations. There can be no assurance we can maintain our licenses or that they will be renewed upon their expiration. Our failure to obtain or maintain necessary licenses, authorizations or to comply with the obligations imposed upon license holders, including the payment of fees, may cause sanctions or additional costs, including the revocation of authority to provide services.

Our operations are subject to regulation at the national level and, often, at the state and local levels. Changes to existing regulations or rules, or the failure to regulate going forward in areas historically regulated on matters such as network neutrality, licensing fees, environmental, health and safety, privacy, intercarrier compensation, emergency 911 services interconnection and other areas, in general or particular to our industry, may increase costs, restrict operations or decrease revenue. Our inability or failure to comply with telecommunications and other laws and regulations could cause the temporary or permanent suspension of our operations, and if we cannot provide emergency calling functionality through our Bandwidth Communications Platform to meet any new federal or state requirements, the competitive advantages that we currently have may not persist, adversely affecting our ability to obtain and to retain enterprise customers which could have an adverse impact on our business.

Our business could suffer if we cannot obtain or retain local or toll-free numbers, are prohibited from obtaining local or toll-free numbers, or are limited to distributing local or toll-free numbers to only certain customers.

Our future success depends on our ability to procure large quantities of local and toll-free numbers in the United States in desirable locations at a reasonable cost and without restriction. Our ability to procure and distribute numbers depends on factors outside of our control, such as applicable regulations, the practices of the communications carriers that provide numbers to us in certain jurisdictions, the cost of these numbers and the level of demand for new numbers. Due to their limited availability, there are certain popular area code prefixes and specialized “vanity” toll-free numbers that we may not be able to obtain in desired quantities or at all. Our inability to acquire or retain numbers for our operations would make our services, including our Bandwidth Communications Platform, less attractive to potential customers that desire assignments of particular numbering resources. In addition, future growth of our customer base, together with growth of customer bases of other providers of communications services, has increased, which increases our dependence on needing large quantities of local and toll-free numbers associated with desirable area codes or specific toll-free numbering resources at a reasonable cost and without restriction. If we are not able to obtain or retain adequate local and toll-free numbers, or attractive subsets of such resources, our business, results of operations and financial condition could be materially adversely affected.

Intellectual property and proprietary rights of others could prevent us from using necessary technology to provide our services or subject us to expensive intellectual property litigation.

If technology that we require to provide our services, including our Bandwidth Communications Platform, was determined by a court to infringe a patent held by another entity that will not grant us a license on terms acceptable to us, we could be precluded by a court order from using that technology and we would likely be required to pay significant monetary damages to the patent holder. The successful enforcement of these patents, or our inability to negotiate a license for these patents on acceptable terms, could force us to cease (i) using the relevant technology and (ii) offering services incorporating the technology. If a claim of infringement was brought against us based on the use of our technology or against our customers based on their use of our services for which we are obligated to indemnify, we could be subject to litigation to determine whether such use or sale is, in fact, infringing. This litigation could be expensive and distracting, regardless of the outcome.

While our own limited patent portfolio may deter other operating companies from bringing such actions, patent infringement claims are increasingly being asserted by patent holding companies, which do not use technology and whose sole business is to enforce patents against operators, such as us, for monetary gain. Because such patent holding companies, commonly referred to as patent “trolls,” do not provide services or use technology, the assertion of our own patents by way of counter-claim would be largely ineffective.

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

Our services, including our Bandwidth Communications Platform, incorporate open source software, and we expect to continue to incorporate open source software in our services 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 services, including our Bandwidth Communications Platform. Moreover, although we have implemented policies to regulate the use and incorporation of open source software into our services, we cannot be certain that we have not incorporated open source software in our services 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 services 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 services that contained the open source software and required to comply with onerous conditions or restrictions on these services. In any of these events, we and our customers could be required to seek licenses from third parties in order to continue offering our services and to re-engineer our services or discontinue offering our services to customers in the event re-engineering cannot be accomplished on a timely basis. Any of the foregoing could require us to devote additional R&D resources to re-engineer our services, could result in customer dissatisfaction and may adversely affect our 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, damages caused by us to property or persons or other liabilities relating to or arising from our services 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

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damage claims from contractual breach could harm our business, results of operations and financial condition. Although we normally 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, reduce demand for our services and adversely affect our business, results of operations and financial condition.

The storage, processing and use of personal information and related data subjects us to evolving governmental laws and regulation, commercial standards, contractual obligations and other legal obligations related to consumer and data privacy, which may have a material impact on our costs, use of our services, or expose us to increased liability.

Federal, state, local and foreign laws and regulations, commercial obligations and industry standards, each provide for obligations and restrictions with respect to data privacy and security, as well as the collection, storage, retention, protection, use, processing, transmission, sharing, disclosure and protection of personal information and other customer data, including customer proprietary network information under applicable federal law. The evolving nature of these obligations and restrictions subjects us to the risk of differing interpretations, inconsistency or conflicts among countries or rules, and creates uncertainty regarding their application to our business.

These obligations and restrictions may limit our ability to collect, store, process, use, transmit and share data with our customers, employees and third-party providers and to allow our customers to collect, store, retain, protect, use, process, transmit, share and disclose data with others through our services. Compliance with, and other burdens imposed by, such obligations and restrictions could increase the cost of our operations and impact our ability to market our services through effective segmentation.

Failure to comply with obligations and restrictions related to applicable data protection laws, regulations, standards, and codes of conduct, as well as our own posted privacy policies and contractual commitments could subject us to lawsuits, fines, criminal penalties, statutory damages, consent decrees, injunctions, adverse publicity, loss of user confidence in our services, and loss of users, which could materially harm our business. Because these obligations and restrictions have continued to develop and evolve rapidly, it is possible that we may not be, or may not have been, compliant with each such obligation and restriction. Additionally, third-party contractors may have access to customer or employee data. If these or other third-party vendors violate obligations and restrictions related to applicable data protection laws or our policies, such violations may also put our customers' or employees' information at risk and could in turn have a material and adverse effect on our business.

If we fail to protect our internally developed systems, technology and software and our patents and trademarks, we may become involved in costly litigation or our business or brand may be harmed.

Our ability to compete effectively is dependent in large part upon the maintenance and protection of systems and software that we have developed internally, including some systems and software-based on open standards. While we have eight U.S. patents and six pending U.S. patent applications, we cannot patent much of the technology that is important to our business. In addition, our pending patent applications may not be granted, and any issued patent that we own may be challenged, narrowed, invalidated or circumvented. To date, we have relied on patent, copyright and trade secret laws, as well as confidentiality procedures and licensing arrangements, to establish and protect our rights to our technology. While we typically enter into confidentiality agreements with our employees, consultants, customers, and vendors in an effort to control access to and distribution of technology, software, documentation and other information, these agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. Despite these precautions, it may be possible for a third-party to copy or otherwise obtain and use our technology without authorization. In addition, others may independently discover trade secrets and proprietary information, and in such cases we could not assert any rights

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against such party. Policing unauthorized use of our technology is difficult. The steps we take may not prevent misappropriation of the technology we rely on. In addition, effective protection may be unavailable or limited in some jurisdictions outside the United States. Litigation may be necessary in the future to enforce or protect our rights or to determine the validity and scope of the rights of others. That litigation could cause us to incur substantial costs and divert resources away from our daily business, which in turn could adversely affect our business, results of operations and financial condition.

The unlicensed use of our brands by third parties could harm our reputation, cause confusion among our customers or impair our ability to market our services. Accordingly, we have registered numerous trademarks and service marks and have applied for registration of our trademarks and service marks in the United States to establish and protect our brand names as part of our intellectual property strategy. We cannot assure you that our pending or future trademark applications will be approved. Although we anticipate that we would be given an opportunity to respond to any such rejections, we may be unable to overcome any such rejections. In addition, in proceedings before the United States Patent and Trademark Office third parties are given an opportunity to oppose pending trademark applications and seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. In the event that our trademarks are successfully challenged, we could be forced to rebrand our services, which could result in loss of brand name recognition. Moreover, successful opposition to our applications might encourage third parties to make additional oppositions or commence trademark infringement proceedings against us, which could be costly and time consuming to defend against. If we decide to take limited or no action to protect our trademarks, our trademark rights may be diluted and subject to challenge or invalidation, which could materially and adversely affect our brand in the marketplace. Certain of the trademarks we may use may become so well known by the public that their use becomes generic and they lose trademark protection. Over the long term, if we are unable to establish name recognition based on our trademark and tradenames, then we may not be able to compete effectively and our business may be adversely affected. Further, we cannot assure you that competitors will not infringe our trademarks or that we will have adequate resources to enforce our trademarks.

We are subject to litigation in the ordinary course of business, and uninsured judgments or a rise in insurance premiums may adversely affect our results of operations.

In the ordinary course of business, we are subject to various claims and litigation. Any such claims, regardless of merit, could be time-consuming and expensive to defend and could divert management's attention and resources. In accordance with customary practice, we maintain insurance against some, but not all, of these potential claims. We may elect not to obtain insurance if we believe that the cost of available insurance is excessive relative to the risks presented. The levels of insurance we maintain may not be adequate to fully cover any and all losses or liabilities. Further, we may not be able to maintain insurance at commercially acceptable premium levels or at all. If any significant judgment, claim (or a series of claims) or other event is not fully insured or indemnified against, it could have a material adverse impact on our business, financial condition and results of operations. There can be no assurance as to the actual amount of these liabilities or the timing thereof. We cannot be certain that the outcome of current or future litigation will not have a material adverse impact on our business and results of operations.

We may be liable for the information that content owners or distributors distribute over our network.

The law relating to the liability of private network operators for information carried on or disseminated through their networks remains unsettled. While we disclaim any liability for third-party content in our services agreements, we may become subject to legal claims relating to the content disseminated on our network, even though such content is owned or distributed by our customers or a customer of our customers. For example, lawsuits may be brought against us claiming that material distributed using our network was inaccurate, offensive or violated the law or the rights of others. Claims could also involve matters such as defamation, invasion of privacy and copyright infringement. In addition, the law remains unclear over whether content may be distributed from one jurisdiction, where the content is legal, into another jurisdiction, where it is not. Companies operating

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private networks have been sued in the past, sometimes successfully, based on the nature of material distributed, even if the content is not owned by the network operator and the network operator has no knowledge of the content or its legality. It is not practical for us to monitor all of the content distributed using our network. We may need to take costly measures to reduce our exposure to these risks or to defend ourselves against such claims, which could adversely affect our results of operations and financial condition.

Third parties may fraudulently use our name to obtain access to customer accounts and other personal information, use our services to commit fraud or steal our services, which could damage our reputation, limit our growth or cause us to incur additional expenses.

Our customers may have been subject to “phishing,” which occurs when a third-party calls or sends an email or pop-up message to a customer that claims to be from a business or organization that provides services to the customer. The purpose of the inquiry is typically to encourage the customer to visit a bogus website designed to look like a website operated by the legitimate business or organization or provide information to the operator. At the bogus website, the operator attempts to trick the customer into divulging customer account or other personal information such as credit card information or to introduce viruses through “Trojan horse” programs to the customers’ computers. This could result in identity theft from our customers and the unauthorized use of our services. Third parties also have used our communications services to commit fraud. If we are unable to detect and prevent “phishing” and other similar methods, use of our services for fraud and similar activities, our brand reputation and growth may suffer and we may incur additional costs, including costs to increase security, or be required to credit significant amounts to customers.

Third parties also have used our communications services without paying, including by submitting fraudulent credit information and fraudulent credit card information. This has resulted in our incurring the cost of providing the services, including incurring call termination fees, without any corresponding revenue. We have implemented anti-fraud procedures in order to limit the expenses resulting from theft of service. If our procedures are not effective, theft of service could significantly increase our expenses and adversely affect our business, results of operations and financial condition.

If our customers or their end users do not accept the differences between our service and traditional telephone service, they may choose to remain with their current telephone service provider or may choose to return to service provided by traditional network service providers.

Aspects of our services based on VoIP, including our Bandwidth Communications Platform, are not the same as traditional network service providers. Our continued growth is dependent on the adoption of our services by mainstream customers and their end users, so these differences are important. For example:

- Our 911 calling services are different, in significant respects, from the 911 service associated with traditional wireline and wireless telephone providers and, in certain cases, with other VoIP providers.
- In the event of a power loss or Internet access interruption experienced by a customer, our service may be interrupted.
- Our customers’ end users may experience lower call quality than they are used to from traditional wireline or wireless telephone companies, including static, echoes and delays in transmissions.
- Our customers’ end users may not be able to call premium-rate telephone numbers such as 1-900 numbers and 976 numbers.

If customers or customers’ end users do not accept the differences between our service and traditional network service providers, they may choose to remain with their current telephone service provider or may choose to return to service provided by traditional network service providers.

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We may lose customers if we experience failures of our system or Bandwidth Communications Platform that significantly disrupt the availability and quality of the services that we provide. Such failures may also cause interruptions to service delivery and the completion of other corporate functions.

Our operations depend on our ability to limit and mitigate interruptions or degradation in service for customers. Interruptions in service or performance problems, for whatever reason, could undermine our customers' confidence in our services and cause us to lose customers or make it more difficult to attract new ones. Because many of our services are critical to the businesses or daily lives of many of our customers or our customers' end users, any significant interruption or degradation in service also could result in lost profits or other losses to customers. Although our service agreements generally limit our liability for service failures and generally exclude any liability for "consequential" damages such as lost profits, a court might not enforce these limitations on liability, which could expose us to financial loss. We also sometimes provide our customers with committed service levels. If we fail to meet these committed service levels, we could be required to provide service credits or other compensation to our customers, which could adversely affect our results of operations.

The failure of any equipment or facility on our network, including our network operations control centers and network data storage locations, could interrupt customer service and other corporate functions until we complete necessary repairs or install replacement equipment. Our business continuity plans also may be inadequate to address a particular failure that we experience. Delays, errors or network equipment or facility failures could result from natural disasters, disease, accidents, terrorist acts, power losses, security breaches, vandalism or other illegal acts, computer viruses or other causes. These delays, errors or failures could significantly impair our business due to:

- service interruptions;
- malfunction of our Bandwidth Communications Platform on which our enterprise users rely for voice, messaging or 911 functionality;
- exposure to customer liability;
- the inability to install new service;
- the unavailability of employees necessary to provide services;
- the delay in the completion of other corporate functions such as issuing bills and the preparation of financial statements; or
- the need for expensive modifications to our systems and infrastructure.

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

Our customers use our services for important aspects of their businesses, and any errors, defects or disruptions to our services and any other performance problems with our services could damage our customers' businesses and, in turn, hurt our brand and reputation. We provide regular updates to our services, 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 services 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 services. As a result, our brand and reputation could be harmed, and our business, results of operations and financial condition may be adversely affected.

If our 911 services do not function properly, we may be exposed to significant liability from our users.

Certain of our IP telephony offerings, as well as the 911 solutions that we offer are subject to FCC rules governing the delivery of emergency calling services. Similar to other providers of IP telephony services, our 911

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service are different from those associated with traditional telecommunications services. These differences may lead to an inability to make and complete calls that would not occur for users of traditional telephony services. For example, to provide the emergency calling services required by the FCC's rules to our IP telephony consumers, we may use components of both the wireline and wireless infrastructure in unique ways that can result in failed connections and calls routed to incorrect emergency call centers. Routing emergency calls over the Internet may be adversely affected by power outages and network congestion that may not occur for users of traditional telephony services. Emergency call centers may not be equipped with appropriate hardware or software to accurately process and respond to emergency calls initiated by consumers of our IP telephony services, and calls routed to the incorrect emergency call center can significantly delay response times for first responders. Users of our IP telephony services from a fixed address are required to manually update their location information, and failure to do so may result in dispatching of assistance to the wrong location. Even manual updates made appropriately require a certain amount of time before the updated address appears in the relevant databases which could result in misrouting emergency calls to the wrong emergency calling center, dispatching first responders to the wrong address, or both. Moreover, the relevant rules with respect to what address information should be provided to emergency call centers when the call originates from a mobile application are unsettled. As a result, we could be subject to enforcement action by the FCC or other entities—possibly exposing us to significant monetary penalties, cease and desist orders, civil liability, loss of user confidence in our services, loss of users, and other adverse consequences, which could materially harm our business. The FCC's rules, and some states, also impose other obligations on us, such as properly recording our customers' registered locations, obtaining affirmative acknowledgement from customers that they are aware of the differences between emergency calling services associated with IP telephony as compared with traditional telecommunications services, and distribution of appropriate warning labels to place on or near hardware used to place IP telephony calls. Failure to comply with these requirements, or failure of our Bandwidth Communications Platform such that 911 calls did not complete or were misrouted, may result in FCC enforcement action, state attorneys' general investigations, potential exposure to significant monetary penalties, cease and desist orders, civil liability to our users and their customers, loss of user confidence in our services, loss of users, and other adverse consequences, which could materially harm our business.

The FCC's rules also require that we timely report certain 911 service outages. We recently reported a 911 service outage to the FCC in their automated Network Outage Reporting System on July 25, 2017, related to a 53-minute outage event on June 26, 2017, that may have met FCC reporting thresholds. The FCC may make further inquiries regarding matters related to any reported 911 service outage. Any inquiry could result in FCC enforcement action, potential monetary penalties and other adverse consequences.

Termination of relationships with key suppliers could cause delay and additional costs.

Our business is dependent on third-party suppliers for fiber, computers, software, transmission electronics and related network components, as well as providers of network colocation facilities that are integrated into our network, some of which are critical to the operation of our business. If any of these critical relationships is terminated, a supplier either exits or curtails its business as a result of economic conditions, a supplier fails to provide critical services or equipment, or the supplier is forced to stop providing services due to legal constraints, such as patent infringement, and we are unable to reach suitable alternative arrangements quickly, we may experience significant additional costs or we may not be able to provide certain services to customers. If that happens, our business, results of operations and financial condition could be materially adversely affected.

Many of our third-party suppliers do not have long-term committed contracts with us and may terminate their agreements with us without notice or by providing 30 days prior written notice. Although we expect that we could receive similar services from other third-party suppliers, if any of our arrangements with our third-party suppliers are terminated, we could experience interruptions in our ability to make our services available to customers, as well as delays and additional expenses in arranging alternative providers. If a significant portion of our third-party suppliers fail to provide these services to us on a cost-effective basis or otherwise terminate these services, the delay caused by qualifying and switching to other providers could be time consuming and costly and could adversely affect our business, results of operations and financial condition.

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One of our third-party suppliers, Level 3, provides us with certain 911 call routing and termination services. Pursuant to the agreement with Level 3, Level 3 is our preferred provider for these services until December 31, 2020, after which the agreement automatically renews for consecutive one-year periods, unless terminated by either Level 3 or us. After December 31, 2020, Level 3 may cancel the agreement upon two years' notice and we may cancel the agreement upon one year's notice. If our agreement with Level 3 terminates for any reason other than our default, Level 3 must continue to provide these services to us for at least two years to allow us to transition to another provider. We are obligated to pay Level 3 a minimum of \$100,000 per month for as long as the agreement continues. Additionally, Level 3 has a right of first refusal to provide these 911 call routing and termination services to us in additional geographic areas.

Our growth and financial health are subject to a number of economic risks.

The financial markets in the United States have experienced substantial uncertainty during recent years. This uncertainty has included, among other things, extreme volatility in securities prices, drastically reduced liquidity and credit availability, rating downgrades of certain investments and declining values with respect to others. If capital and credit markets continue to experience uncertainty and available funds remain limited, we may not be able to obtain debt or equity financing or to refinance our existing indebtedness on favorable terms or at all, which could affect our strategic operations and our financial performance and force modifications to our operations. These conditions currently have not precluded us from accessing credit markets or financing our operations, but there can be no assurance that financial markets and confidence in major economies will not deteriorate. An extended period of economic deterioration could materially adversely affect our results of operations and financial condition and exacerbate some of the other risk factors contained in this prospectus. For example, our customers might defer or entirely decline purchases of our services due to tighter credit or negative financial news or reduce demand for our services. Our customers also may not be able to obtain adequate credit, which could adversely affect the timeliness of their payments to us or ultimately result in a filing by the customer for protection from creditors under applicable insolvency or bankruptcy laws. If our customers cannot make timely payments to us, our accounts receivable could increase. The demand for, and the prices of, our services also may decline due to the actions of our competitors or otherwise.

Key vendors upon which we rely also could be unwilling or unable to provide us with the materials or services that we need to operate our Bandwidth Communications Platform or otherwise on a timely basis or on terms that we find acceptable. Our financial counterparties, insurance providers or others also may default on their contractual obligations to us. If any of our key vendors fail, we may not be able to replace them without disruptions to, or deterioration of, our services and we also may incur higher costs associated with new vendors. Transitioning to new vendors also may result in the loss of the value of assets associated with our integration of third-party services into our network or service offerings.

Our customer churn rate may increase.

Customer churn occurs when a customer discontinues service with us, whether voluntarily or involuntarily, such as a customer switching to a competitor or going out of business. Changes in the economy, increased competition from other providers, or issues with the quality of service we deliver can impact our customer churn rate. We cannot predict future pricing by our competitors, but we anticipate that price competition will continue. Lower prices offered by our competitors could contribute to an increase in customer churn. We cannot predict the timing, duration or magnitude of any deteriorated economic conditions or its impact on our target of customers. Higher customer churn rates could adversely affect our revenue growth. Higher customer churn rates could cause our dollar-based net retention rate to decline. A sustained and significant growth in the churn rate could have a material adverse effect on our business.

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The market prices for certain of our services have decreased in the past and may decrease in the future, resulting in lower revenue than we anticipate.

Market prices for certain of our services have decreased over recent years. These decreases resulted from downward market pressure and other factors including:

- technological changes and network expansions, which have resulted in increased transmission capacity available for sale by us and by our competitors; and
- some of our competitors have been willing to accept smaller operating margins in the short term in an attempt to increase long-term revenue.

To retain customers and revenue, we must sometimes reduce prices in response to market conditions and trends. We cannot predict to what extent we may need to reduce our prices to remain competitive or whether we will be able to sustain future pricing levels as our competitors introduce competing services or similar services at lower prices. Our ability to meet price competition may depend on our ability to operate at costs equal to or lower than our competitors or potential competitors. As our prices for some of our services decrease, our operating results may suffer unless we are able to either reduce our operating expenses or increase traffic volume from which we can derive additional revenue.

The need to obtain additional IP circuits from other providers increases our costs. In addition, the need to interconnect our network to networks that are controlled by others could increase our costs.

We lease over 150,000 IP circuits from third parties nationwide. We could incur material expenses if we were required to locate alternative IP circuits. We may not be able to obtain reasonable alternative IP circuits if needed. Failure to obtain usage of alternative IP circuits, if necessary, could have a material adverse effect on our ability to carry on business operations. In addition, some of our agreements with other providers require the payment of amounts for services whether or not those services are used. Our reliance on third-party providers may reduce our operating flexibility, ability to make timely service changes and ability to control quality of service.

In the normal course of business, we need to enter into interconnection agreements with many local telephone companies, as well as the owners of networks that our customers desire to access to deliver their services. We are not always able to secure these interconnection agreements on favorable terms. Costs of obtaining service from other communications carriers comprise a significant proportion of the operating expenses of long distance carriers. Changes in regulation, particularly the regulation of telecommunication carriers and local access network owners, could indirectly, but significantly, affect our competitive position. These changes could increase or decrease the costs of providing our services. Further, if problems occur with our third-party providers or local telephone companies, it may cause errors or poor quality communications, and we could encounter difficulties identifying the source of the problem. The occurrence of errors or poor quality communications on our services, whether caused by our platform or a third-party provider, may result in the loss of our existing customers or the delay of adoption of our services by potential customers and may 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 platform, to deliver our services 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 Cofounder, Chief Executive Officer and Chairman, David A. Morken. The replacement of any of

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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 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 Raleigh, North Carolina 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 services, 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 hired, or that they 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 amount of shares of Class A common stock, Class B 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.

Our management team has limited experience managing a public company.

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

We could be subject to liability for historic 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, use and telecommunications taxes, including those associated with (or potentially associated with) VoIP telephony services or 911 services, are or may be assessed on our operations. The systems and procedures necessary to comply in these jurisdictions are complex to develop and challenging to implement. Additionally, we rely heavily on third parties to provide us with key software and services for compliance. If these third parties cease to provide those services to us for any reason, or fail to perform services accurately and completely, we may not be able to accurately bill, collect or remit applicable non-income-based taxes. Historically, we have not billed or collected certain of these taxes and, in accordance with 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 services, the jurisdictions in which we believe we

have nexus, and the sourcing of revenue to those jurisdictions. In the event these jurisdictions challenge our assumptions and analysis, our actual exposure could differ materially from our current estimates.

Taxing authorities also may periodically perform audits to verify compliance and include all periods that remain open under applicable statutes, which customarily range from three to four years. At any point in time, we may undergo audits that could result in significant assessments of past taxes, fines and interest if we were found to be non-compliant. During the course of an audit, a taxing authority may, as a matter of policy, question our interpretation and/or application of their rules in a manner that, if we were not successful in substantiating our position, could potentially result in a significant financial impact to us.

Furthermore, certain jurisdictions in which we do not collect sales, use and similar 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.

We may be subject to significant U.S. federal income tax-related liabilities if certain ownership changes were to occur, including as a result of subsequent issuances or acquisitions of our stock, and we may determine to forego certain transactions in light of such liabilities as well as the restrictions and obligations imposed by and under the Tax Sharing Agreement.

We may be subject to significant U.S. federal income tax-related liabilities with respect to our prior distribution of all of the issued and outstanding shares of the common stock of Republic Wireless, Inc. (“Republic Wireless”), our former subsidiary, to our stockholders as of and on November 30, 2016 (the “Spin-Off”), if certain ownership changes were to occur. In particular, even if the Spin-Off otherwise qualifies as a tax-free transaction to us and our stockholders under Section 355, Section 368(a)(1)(D) and related provisions of the U.S. Internal Revenue Code of 1986, as amended (the “Code”), it may result in corporate-level taxable gain to us under Section 355(e) of the Code (“Section 355(e)”) if there is a 50% or greater change in ownership, by vote or value, of shares of our stock or Republic Wireless’s stock occurring as part of a plan or series of related transactions that includes the Spin-Off. In addition, pursuant to the Tax Sharing Agreement, dated November 30, 2016, between us and Republic Wireless (the “Tax Sharing Agreement”), we and Republic Wireless are each prohibited from taking or failing to take any action that prevents the Spin-Off from qualifying for tax-free treatment under Section 355, Section 368(a)(1)(D) and related provisions of the Code, and we and Republic Wireless must generally indemnify one another for any taxes or losses incurred by the other (or its respective subsidiaries), as applicable, resulting from the application of Section 355(e) to the Spin-Off as a result of subsequent actions we or Republic Wireless take or fail to take. See the section titled “Certain Relationships and Related Party Transactions—Tax Sharing Agreement” for further discussion of the Tax Sharing Agreement.

To preserve the tax-free nature of the Spin-Off to us as well as Republic Wireless (and its subsidiaries), we might forego certain transactions that might otherwise have been advantageous. In particular, we might continue to operate certain of our business operations for the foreseeable future even if a sale or discontinuance of such business might have otherwise been advantageous.

In addition, for purposes of Section 355(e), any acquisitions or issuances of our stock, including pursuant to the Pre-IPO Reorganization, this offering or the IPO-Related Reorganization, or Republic Wireless’s stock that occur within two years after the Spin-Off will generally be presumed to be part of a plan or series of related transactions with respect to the Spin-Off. Although we or Republic Wireless may be able to rebut that presumption, determining whether an acquisition or issuance is part of a plan or series of related transactions under these rules is generally complex, inherently factual and subject to interpretation of the facts and circumstances of a particular case. For this purpose, whether any increase in voting power by holders of our Class B common stock by reason of the conversion by other holders of our Class B common stock to our Class A common stock should be considered an acquisition of voting power as part of a plan or series of related transactions is unclear.

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In light of the implications that would arise for us if Section 355(e) were to apply to the Spin-Off, we received an opinion from Kilpatrick Townsend & Stockton LLP, our special tax counsel, in conjunction with this offering to the effect that (i) as of the date of this offering, we will not be required to recognize gain with respect to the Spin-Off pursuant to Section 355(e) as a result of one or more persons directly or indirectly acquiring our stock, and (ii) any increases in voting power attributable to conversions of our Class B common stock to Class A common stock by those who hold our Class B common stock as of the date of this offering will not cause us to recognize gain with respect to the Spin-Off pursuant to Section 355(e) (the “Tax Opinion”). The Tax Opinion is not binding on the Internal Revenue Service (the “IRS”) or the courts, however, and the IRS or the courts may not agree with the conclusions reached in the Tax Opinion. Moreover, the Tax Opinion will be based upon, among other things, current law and certain assumptions and representations as to factual matters made by us. Any change in currently applicable law, which may be retroactive, or the failure of any such assumptions or representations to be true, could adversely affect the validity of the conclusions reached in the Tax Opinion. If the conclusions in the Tax Opinion were not correct and Section 355(e) were to apply to the Spin-Off, we would be liable for significant U.S. federal income tax related liabilities and indemnity obligations under the Tax Sharing Agreement.

Even if Section 355(e) does not apply to the Spin-Off as of the date of this offering or as a result of an increase in voting power attributable to conversions of our Class B common stock by those who hold such stock as of the date of this offering, subsequent acquisitions or issuances of our stock could be treated as part of a plan or series of related transactions with respect to the Spin-Off. Accordingly, in light of the requirements of Section 355(e), we might forego share repurchases, stock issuances and other strategic transactions for some period of time following this offering. Notwithstanding the foregoing, it is possible that we, Republic Wireless or the holders of our respective stock might inadvertently cause, permit or otherwise not prevent a change in the ownership of our stock or Republic Wireless’s stock to occur, which would cause Section 355(e) to apply to the Spin-Off, thereby triggering significant U.S. federal income tax-related liabilities and indemnity obligations under the Tax Sharing Agreement of approximately \$50 million. This approximation is based on our current expectations and the tax laws in effect on the date of this prospectus. However, we cannot provide any assurance that this estimate will prove to be accurate in the event that Section 355(e) were to apply.

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 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 “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. Significant assumptions and estimates used in preparing our consolidated financial statements include those related to revenue recognition, capitalized internal-use software costs, other non-income taxes, business combination and valuation of goodwill and purchased intangible assets and share-based compensation. 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.

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 will be subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act of 2002 (the “Sarbanes-Oxley Act”), and the rules and regulations of the applicable listing standards

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of the NASDAQ Global Select Market. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting and financial compliance costs, make some activities more difficult, time-consuming and costly and place significant strain on our personnel, systems and resources.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we will file with the SEC is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers. We are also continuing to improve our internal control over financial reporting. In order to develop, maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs and significant management oversight.

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 consolidated financial statements for prior periods. Any failure to implement and maintain effective internal control over financial reporting could also 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 will eventually be 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, which would likely have a negative effect on 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 NASDAQ Global Select Market. We are not currently required to comply with the SEC rules that implement Section 404 of the Sarbanes-Oxley Act and are therefore not required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose. As a public company, we will be required to provide an annual management report on the effectiveness of our internal control over financial reporting commencing with our second annual report on Form 10-K.

Our independent registered public accounting firm is not required to attest to the effectiveness of our internal control over financial reporting until after we are no longer an “emerging growth company” as defined in the JOBS Act. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our internal control over financial reporting is documented, designed or operating. Any failure to maintain effective disclosure controls and internal control over financial reporting 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.

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 June 30, 2017, we carried a net \$14.9 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.

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We are an “emerging growth company” and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our Class A common stock less attractive to investors.

We are an “emerging growth company,” as defined in the JOBS Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies,” including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We may take advantage of these exemptions for so long as we are an “emerging growth company,” which could be as long as five years following the completion of this offering. We cannot predict if investors will find our Class A common stock less attractive because we will rely on these exemptions. If some investors find our Class A common stock less attractive as a result, there may be a less active trading market for our Class A common stock and the trading price of our Class A common stock may be more volatile.

Earthquakes, hurricanes, fires, floods, power outages, terrorist attacks and other significant events could disrupt our business and ability to serve our clients.

A significant event, such as an earthquake, hurricane, a fire, a flood or a power outage, could have a material adverse effect on our business, results of operations or financial condition. Our IP network is designed to be redundant and to offer seamless backup support in an emergency. While our network is designed to withstand the loss of any one data center at any point in time, the simultaneous failure of multiple data centers could disrupt our ability to serve our clients. Additionally, certain of our capabilities cannot be made redundant feasibly or cost-effectively. Acts of physical or cyber terrorism or other geopolitical unrest also could cause disruptions in our business. The adverse impacts of these risks may increase if our disaster recovery plans prove to be inadequate.

As we have elected to avail ourselves of the JOBS Act extended accounting transition period, our financial statements may not be easily comparable to other companies.

Pursuant to the JOBS Act, as an “emerging growth company,” we can elect to avail ourselves of the extended transition period for any new or revised accounting standards that may be issued by the Public Company Accounting Oversight Board or the SEC. We have elected to avail ourselves of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an “emerging growth company,” expect to adopt the standard on the timeline for private companies. This may make comparison of our financial statements with other public companies that are not emerging growth companies or emerging growth companies that have opted out of using the extended transition period difficult or impossible because of the potential differences in accounting standards used.

Our financial condition and growth may depend upon the successful integration of acquired businesses. We may not be able to efficiently and effectively integrate acquired operations, and thus may not fully realize the anticipated benefits from such acquisitions.

Achieving the anticipated benefits of any acquisitions depends in part upon whether we can integrate new businesses in an efficient and effective manner. The integration of any acquired businesses involves a number of risks, including, but not limited to:

- demands on management related to any significant increase in size after the acquisition;
- the disruption of ongoing business and the diversion of management’s attention from the management of daily operations to management of integration activities;
- failure to fully achieve expected synergies and costs savings;
- unanticipated impediments in the integration of departments, systems, including accounting systems, technologies, books and records and procedures, as well as in maintaining uniform standards, controls,

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- including internal control over financial reporting required by the Sarbanes-Oxley Act, procedures and policies;
- loss of customers or the failure of customers to order incremental services that we expect them to order;
- failure to provision services that are ordered by customers during the integration period;
- higher integration costs than anticipated; and
- difficulties in the assimilation and retention of highly qualified, experienced employees, many of whom may be geographically dispersed.

Successful integration of any acquired businesses or operations will depend on our ability to manage these operations, realize opportunities for revenue growth presented by strengthened service offerings and expanded geographic market coverage, obtain better terms from our vendors due to increased buying power, and eliminate redundant and excess costs to fully realize the expected synergies. Because of difficulties in combining geographically distant operations and systems which may not be fully compatible, we may not be able to achieve the financial strength and growth we anticipate from the acquisitions.

We may not realize our anticipated benefits from our acquisitions, if any, or may be unable to efficiently and effectively integrate acquired operations as planned. If we fail to integrate acquired businesses and operations efficiently and effectively or fail to realize the benefits we anticipate, we would be likely to experience material adverse effects on our business, financial condition, results of operations and future prospects.

Our credit facility contains restrictive and financial covenants that may limit our operating flexibility.

Our credit facility contains certain restrictive covenants that either limit our ability to, or require a mandatory prepayment in the event we, among other things, incur additional indebtedness, issue guarantees, create liens on assets, make certain investments, merge with or acquire other companies, change business locations, pay dividends or make certain other restricted payments, transfer or dispose of assets, enter into transactions with affiliates and enter into various specified transactions. We, therefore, may not be able to engage in any of the foregoing transactions unless we obtain the consent of our lenders or prepay the outstanding amount under our credit facility. Our credit facility also contains certain financial covenants and financial reporting requirements. Our obligations under our credit facility are secured by all of our property, with certain exceptions. We may not be able to generate sufficient cash flow or sales to meet the financial covenants or pay the principal and interest under our credit facility. Furthermore, future working capital, borrowings or equity financing could be unavailable to repay or refinance the amounts outstanding under our credit facility. In the event of a liquidation, all outstanding principal and interest would have to be repaid prior to distribution of assets to unsecured creditors, and the holders of our Class A and Class B common stock would receive a portion of any liquidation proceeds only if all of our creditors, including our lenders, were first repaid in full.

If we are unable to comply with the restrictive and financial covenants in our credit facility, there would be a default under the terms of that agreement, and this could result in an acceleration of payment of funds that have been borrowed.

If we were unable to comply with the restrictive and financial covenants in our credit facility, there would be a default under the terms of that agreement. As a result, any borrowings under other instruments that contain cross-acceleration or cross default provisions may also be accelerated and become due and payable. If any of these events occur, there can be no assurance that we would be able to make necessary payments to the lenders or that we would be able to find alternative financing. Even if we were able to obtain alternative financing, there can be no assurance that it would be on terms that are acceptable.

Risks Related to Our Initial Public Offering and Ownership of Our Class A Common Stock

An active trading market for our Class A common stock may never develop or be sustained.

We have applied to list our Class A common stock on the NASDAQ Global Select Market under the symbol “BAND”. We cannot assure you that an active trading market for our Class A common stock will develop on that exchange or elsewhere or, if developed, that any market will be sustained. Accordingly, we cannot assure you of the likelihood that an active trading market for our Class A common stock will develop or be maintained, the liquidity of any trading market, your ability to sell your shares of our Class A common stock when desired or the prices that you may obtain for your shares.

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

Prior to this offering, there has been no public market for shares of our Class A common stock. The initial public offering price of our Class A common stock will be determined through negotiation between us and the underwriters. This price does not necessarily reflect the price at which investors in the market will be willing to buy and sell shares of our Class A common stock following this offering. In addition, the trading price of our Class A common stock following this offering is likely to be volatile and could be subject to fluctuations in response to various factors, some of which are beyond our control. These fluctuations could cause you to lose all or part of your investment in our Class A common stock since you might be unable to sell your shares at or above the price you paid in this offering. Factors that could cause fluctuations in the trading price of our Class A common stock include the following:

- price and volume fluctuations in the overall stock market from time to time;
- volatility in the trading prices and trading volumes of technology stocks;
- volatility in the trading volumes of our Class A common stock;
- 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;
- 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;
- regulatory actions or developments affecting our operations, those of our competitors or our industry more broadly;
- 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;

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- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- new rules adopted by certain index providers, such as S&P Dow Jones, that limit or preclude inclusion of companies with multi-class capital structures in certain of their indices;
- any significant change in our management; and
- general economic conditions and slow or negative growth of our markets.

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

A substantial portion of the outstanding shares of our Class A and Class B common stock after this offering will be restricted from immediate resale, but may be sold on a stock exchange in the near future. The large number of shares eligible for public sale or subject to rights requiring us to register them for public sale could depress the market price of our Class A common stock.

The market price of our Class A common stock could decline as a result of sales of a large number of shares of our Class A common stock in the market after this offering, and the perception that these sales could occur may also depress the market price of our Class A common stock. Based on _____ shares of our capital stock outstanding as of September 30, 2017, we will have _____ shares of our Class A and Class B common stock outstanding after this offering. Our executive officers, directors and the holders of substantially all of our capital stock and securities convertible into or exchangeable for our capital stock have entered into market standoff agreements with us or have entered or will enter into lock-up agreements with the underwriters under which they have agreed, subject to specific exceptions, not to sell any of our stock for 180 days following the date of this prospectus. We refer to such period as the lock-up period. Due to these agreements and the provisions of our investors' rights agreement described further in the section titled "Description of Capital Stock—Registration Rights," and subject to the provisions of Rule 144 or Rule 701, shares of our Class A and Class B common stock will be available for sale in the public market as follows:

- _____ shares of Class B common stock will be immediately available for sale in the public market, following conversion to Class A common stock;
- beginning on the date of this prospectus, all _____ shares of our Class A common stock sold in this offering will be immediately available for sale in the public market; and
- beginning 181 days after the date of this prospectus, subject to the Conversion Lock-up Agreements (as defined in Certain Relationships and Related Party Transactions—Conversion Lock-up Agreements), the remainder of the shares of our Class A and Class B common stock will be eligible for sale in the public market from time to time thereafter, subject in some cases to the volume and other restrictions of Rule 144.

Upon completion of this offering, stockholders owning an aggregate of up to 1,646,933 shares will be entitled, under contracts providing for registration rights, to require us to register shares owned by them for public sale in the United States. In addition, we intend to file a registration statement to register shares reserved for future issuance under our equity compensation plans. Upon effectiveness of that registration statement, subject to the satisfaction of applicable exercise periods and expiration of the market standoff agreements and lock-up agreements referred to above, the shares issued upon exercise of outstanding stock options will be available for immediate resale in the United States in the open market.

Sales of our shares as restrictions end or pursuant to registration rights may make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. These sales also could cause

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the trading price of our Class A common stock to fall and make it more difficult for you to sell shares of our Class A common stock.

The dual class structure of our common stock will have the effect of concentrating voting control with those stockholders who held our capital stock prior to the completion of this offering, including our directors, executive officers and significant stockholders who will hold in the aggregate % of the voting power of our capital stock following the completion of this offering. This will limit or preclude your ability to influence corporate matters, including the election of directors, amendments to 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 A common stock, which is the stock we are offering in this offering, has one vote per share, and our Class B common stock has ten votes per share. Following this offering, our directors, executive officers and holders of more than 5% of our common stock, and their respective affiliates, will hold in the aggregate % of the voting power of our capital stock. Because of the ten-to-one voting ratio between our Class B 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. This concentrated control will limit or preclude your ability to influence corporate matters for the foreseeable future, including the election of directors, amendments to 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. See the section titled “Description of Capital Stock—Anti-Takeover Provisions” for additional information.

Following the IPO-Related Reorganization, we expect that we will become controlled by David A. Morken, our Cofounder and Chief Executive Officer, whose interests may differ from other stockholders.

Following the IPO-Related Reorganization, we expect David A. Morken, our Cofounder and Chief Executive Officer will control approximately % of the combined voting power of our outstanding capital stock (or approximately % if the underwriters exercise their option to purchase additional shares in full). As a result, Mr. Morken will have the ability to control the appointment of our management, the entering into of mergers, sales of substantially all or all of our assets and other extraordinary transactions and influence amendments to our certificate of incorporation and bylaws. So long as Mr. Morken continues to control a majority of the voting power of our outstanding capital stock, he will have the ability to control the vote in any election of directors and will have the ability to prevent any transaction that requires shareholder approval regardless of whether other shareholders believe the transaction is in our best interests. In any of these matters, the interests of Mr. Morken may differ from or conflict with your interests. Moreover, this concentration of ownership may also adversely affect the trading price for our Class A common stock to the extent investors perceive disadvantages in owning stock of a company with a controlling shareholder.

Following the IPO-Related Reorganization, to the extent we become a “controlled company,” we plan to take advantage of the applicable exemption to the corporate governance rules for NASDAQ-listed companies, which could make our Class A common stock less attractive to some investors or otherwise harm our stock price.

Following the IPO-Related Reorganization, we expect that we will qualify as a “controlled company” under the corporate governance rules for NASDAQ-listed companies and expect to take advantage of related exemptions to the corporate governance rules. As a result, we will not be required to have a majority of our board

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of directors be independent, nor will we be required to have a compensation committee or an independent nominating function. Accordingly, should the interests of our controlling stockholder differ from those of other stockholders, the other stockholders may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance rules for NASDAQ-listed companies. Our status as a controlled company could make our Class A common stock less attractive to some investors or otherwise harm our stock price. If fewer shares of Class B common stock are converted into shares of Class A common stock than we expect, Mr. Morken may not control sufficient voting power of our outstanding capital stock for us to qualify as a “controlled company” under the corporate governance rules for NASDAQ-listed companies. If we are not a “controlled company” by the first anniversary of our listing on NASDAQ, we will have to comply with the corporate governance standards applicable to non-controlled companies, including with respect to independent directors, and we may not have a long-lead time to satisfy those standards.

We cannot predict the impact our capital structure may have on our stock price.

In July 2017, S&P Dow Jones, a provider of widely followed stock indices, announced that companies with multiple share classes, such as ours, will not be eligible for inclusion in certain of their indices. As a result, our Class A common stock will likely not be eligible for these stock indices. Additionally, FTSE Russell, another provider of widely followed stock indices, recently stated that it plans to require new constituents of its indices to have at least five percent of their voting rights in the hands of public stockholders. Many investment funds are precluded from investing in companies that are not included in such indices, and these funds would be unable to purchase our Class A common stock if we were not included in such indices. We cannot assure you that other stock indices will not take a similar approach to S&P Dow Jones or FTSE Russell in the future. Exclusion from indices could make our Class A common stock less attractive to investors and, as a result, the market price of our Class A common stock could be adversely affected.

If securities or industry analysts do not publish or 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 will be 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 may cover us change their recommendation regarding our Class A common stock in an adverse manner, or provide more favorable recommendations about our competitors relative to us, the trading price of our Class A common stock would likely decline. If any analyst who may cover 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.

We may invest or spend the proceeds of this offering in ways with which you may not agree or in ways which may not yield a return.

The net proceeds from the sale of our shares of our Class A common stock by us in this offering may be used for general corporate purposes, including sales and marketing activities, including further expansion of our product development and sales and marketing organizations, repayment of indebtedness, working capital, general and administrative matters and capital expenditures. We also may use a portion of the net proceeds to acquire businesses, products, services or technologies. However, we do not have agreements or commitments for any specific acquisitions at this time. Our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. Until the net proceeds are used, they may be placed in investments that do not produce significant income or that may lose value.

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Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price of \$ _____ per share of Class A common stock, which is the midpoint of the price range set forth on the cover page of this prospectus, is substantially higher than the net tangible book value per share of our outstanding Class A common stock immediately after this offering. Therefore, if you purchase our Class A common stock in this offering, you will incur immediate dilution of \$ _____ in the net tangible book value per share of Class A common stock from the price you paid. In addition, purchasers who bought shares of Class A common stock from us in this offering will have contributed _____ % of the total consideration paid to us by our stockholders to purchase shares of our common stock, in exchange for acquiring approximately _____ % of the outstanding shares of our capital stock as of September 30, 2017 after giving effect to this offering. The exercise of outstanding stock options and the vesting of restricted stock units will result in further dilution.

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

Our second amended and restated certificate of incorporation, second amended and restated bylaws and Delaware law contain or will 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 second amended and restated certificate of incorporation and second amended and restated bylaws will 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 will be classified into three classes of directors with staggered three-year terms;
- prohibiting stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- requiring super-majority voting to amend some provisions in our second amended and restated certificate of incorporation and second amended and restated bylaws;
- 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.

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Any provision of our second amended and restated certificate of incorporation, second 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 Class A common stock and could also affect the price that some investors are willing to pay for our Class A common stock.

Our second amended and restated certificate of incorporation and our second amended and restated bylaws will include super-majority voting provisions that will limit your ability to influence corporate matters.

Our second amended and restated certificate of incorporation and our second amended and restated bylaws will include provisions that require the affirmative vote of two-thirds of all of the outstanding shares of our capital stock entitled to vote to effect certain changes. These changes include amending or repealing our second amended and restated bylaws or second amended and restated certificate of incorporation or removing a director from office for cause. Because, following the IPO-Related Reorganization, we expect Mr. Morken will control the majority of the voting power of our outstanding capital stock, he will have the ability to prevent any such changes, which will limit your ability to influence corporate matters.

Our amended and restated bylaws provide, subject to certain exceptions, that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.

Our amended and restated bylaws provide, subject to limited exceptions, that the Court of Chancery of the State of Delaware will, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or stockholder to us or our stockholders; (iii) any action asserting a claim against us that is governed by the internal affairs doctrine; or (iv) any action arising pursuant to any provision of the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws. If a stockholder files an action within the scope of the preceding sentence in any other court than a court located in Delaware, the stockholder shall be deemed to have consented to the provisions of our amended and restated bylaws described above. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision that will be contained in our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially adversely affect our business, financial condition and results of operations.

We may need additional capital in the future and such capital may be limited or unavailable. Failure to raise capital when needed could prevent us from growing in accordance with our plans.

We may require more capital in the future from equity or debt financings to fund our operations, finance investments in equipment and infrastructure, acquire complementary businesses and technologies, and respond to competitive pressures and potential strategic opportunities. If we are required to raise additional funds through further issuances of equity or other securities convertible into equity, our existing stockholders could suffer significant dilution, and any new shares we issue could have rights, preferences or privileges senior to those of the holders of our Class A common stock. The additional capital we may seek may not be available on favorable terms or at all. In addition, our credit facility limits our ability to incur additional indebtedness under certain circumstances. If we are unable to obtain capital on favorable terms or at all, we may have to reduce our operations or forego opportunities, and this may have a material adverse effect on our business, financial condition and results of operations.

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

We have never declared or paid any cash dividends on our Class A common stock and do not intend to pay any cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the development of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. In addition, the terms of our credit facility contain restrictions on our ability to declare and pay cash dividends on our capital stock. Accordingly, investors must 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 investments.

If a large number of shares of our Class A common stock is sold in the public market, the sales could reduce the trading price of our Class A common stock and impede our ability to raise future capital.

We cannot predict what effect, if any, future issuances by us of our Class A common stock will have on the market price of our Class A common stock. In addition, shares of our Class A common stock that we issue in connection with an acquisition may not be subject to resale restrictions. The market price of our Class A common stock could drop significantly if certain large holders of our Class A common stock, or recipients of our Class A common stock in connection with an acquisition, sell all or a significant portion of their shares of Class A common stock or are perceived by the market as intending to sell these shares other than in an orderly manner. In addition, these sales could impair our ability to raise capital through the sale of additional Class A common stock in the capital markets.

THE COMMON STOCK SPLIT AND THE REORGANIZATIONS

Common Stock Split

Prior to this offering, we had three classes of shares: (1) Series A Redeemable Convertible Preferred Stock (“Series A preferred stock”), (2) Class A voting common stock (“Old Class A common stock”) and (3) Class B non-voting common stock (“Old Class B common stock”). Both our Series A preferred stock and our Old Class A common stock had one vote per share and our Old Class B common stock was non-voting. On October 23, 2017, we filed an amendment to our first amended and restated certificate of incorporation that provided for a 2.50-for-1 split of each class of our then existing common stock (the “common stock split”).

Pre-IPO Reorganization

Our board of directors, as well as shareholders representing a majority of our outstanding Series A preferred stock, our outstanding Old Class A common stock and our outstanding Old Class B common stock, each voting as a separate class, are expected to approve our second amended and restated certificate of incorporation prior to the commencement of this offering. Following such approval and prior to the effectiveness of our second amended and restated certificate of incorporation and the pricing of this offering, each of our outstanding shares of Series A preferred stock will convert into 2.50 shares of our Old Class A common stock. Following such conversion of our outstanding Series A preferred stock into Old Class A common stock and immediately prior to the pricing of this offering, we expect to file our second amended and restated certificate of incorporation with the Secretary of State for the State of Delaware. Upon the effectiveness of our second amended and restated certificate of incorporation and the effectiveness of our second amended and restated bylaws, (i) each share of our Old Class A common stock, including those shares of our Old Class A common stock issued upon the conversion of our then outstanding Series A preferred stock, will be reclassified as one share of Class B common stock, with each share of Class B common stock having ten votes per share, (ii) each share of our Old Class B common stock will be reclassified as one share of Class A common stock, with each share of Class A common stock having one vote per share, and (iii) options and warrants exercisable into shares of Old Class A common stock will become exercisable into shares of Class B common stock and options exercisable into shares of Old Class B common stock will be exercisable into shares of Class A common stock (collectively, the “Pre-IPO Reorganization”).

IPO-Related Reorganization

To date, we have received regulatory approval from the FCC and expect to receive regulatory approvals from various state public utility commissions on or prior to January 31, 2018, which would allow us to become a controlled company in the future. Upon receipt of such regulatory approvals, certain holders of our Class B common stock may begin to either (i) voluntarily convert their shares of Class B common stock to shares of Class A common stock on a one-for-one basis or (ii) otherwise dispose of their shares of Class B common stock, which will result in the automatic conversion of the shares of Class B common stock into shares of Class A common stock upon completion of such dispositions. In either case, the voting power of the remaining holders of Class B common stock (including Mr. Morken) will increase (the “IPO-Related Reorganization”). It is expected that each of David A. Morken, John C. Murdock, Henry R. Kaestner, Susan Bowen, Steve Lerner, Leona Toal and Scott and Tamsen Toal will enter into Conversion Lock-up Agreements, pursuant to which those shareholders agree not to convert that portion of their Class B common stock to Class A common stock subject to such lock-up prior to December 31, 2018. See “Certain Relationships and Related Party Transactions—Conversion Lock-up Agreements.”

Upon completion of the IPO-Related Reorganization, we will become a “controlled company” under the corporate governance rules for NASDAQ-listed companies and will be controlled by Mr. Morken, who is expected to hold approximately % of the voting power of our outstanding capital stock, assuming all holders of Class B common stock who are able to do so (other than the shares held or controlled by those subject to the Conversion Lock-Up Agreements, including Mr. Morken) are converted to Class A common stock. Holders of shares of

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Class B common stock are not required to convert their shares of Class B common stock to shares of Class A common stock and therefore, we cannot assure you that a sufficient number of shares of Class B common stock will convert into Class A common stock. If a sufficient number do not convert, we will not become a controlled company under the corporate governance rules for NASDAQ-listed companies. Regardless of whether we become a “controlled company” or not, we will comply with the NASDAQ corporate governance rules.

If and when we become a controlled company, Mr. Morken will have the ability to control the outcome of matters submitted to our stockholders for approval, including the election of our directors and the approval of any change of control transaction. See “Risk Factors—Risks Related to Our Initial Public Offering and Ownership of Our Class A Common Stock—Following the IPO-Related Reorganization, to the extent we become a “controlled company,” we plan to take advantage of the applicable exemption to the corporate governance rules for NASDAQ-listed companies, which could make our Class A common stock less attractive to some investors or otherwise harm our stock price” and “Description of Capital Stock” for more information.

MARKET AND INDUSTRY DATA

The market data and other statistical information used throughout this prospectus are based on independent industry publications, reports by market research firms or other published independent sources. Some market data and statistical information are also based on our good faith estimates, which are derived from management's knowledge of our industry and such independent sources referred to above. Certain market, ranking and industry data included in this prospectus, including the size of certain markets and our size or position and the positions of our competitors within these markets, including our services relative to our competitors, are based on estimates of our management. These estimates have been derived from our management's knowledge and experience in the markets in which we operate, as well as information obtained from surveys, reports by market research firms, our customers, distributors, suppliers, trade and business organizations and other contacts in the markets in which we operate. References herein to our being a leader in a market or service offering refer to our belief that we have a leading market share position in each specified market, unless the context otherwise requires. In addition, the discussion herein regarding our various markets is based on how we define the markets for our services, which services may be either part of larger overall markets or markets that include other types of services.

While we believe the industry, market and competitive position data included in this prospectus is reliable and is based on reasonable assumptions, such data involves risks and uncertainties and are subject to change based on various factors, including those discussed in "Risk Factors." These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us. Information based on estimates, forecasts, projections, market research, or similar methodologies is inherently subject to uncertainties, and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. In some cases, we do not expressly refer to the sources from which data is derived.

Certain monetary amounts, percentages and other figures included in this prospectus have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables or charts may not be the arithmetic aggregation of the figures that precede them, and figures expressed as percentages in the text may not total 100% or, as applicable, when aggregated may not be the arithmetic aggregation of the percentages that precede them.

Certain information in this prospectus is contained in independent industry publications. The source of these independent industry publications is provided below:

- comScore, Inc., *Looking Ahead to the Voice Era*, July 2017.
- Gartner, Inc., *Forecast Snapshot: VPA-Enabled Wireless Speakers, Worldwide, 2016-2021*, Werner Goertz and Ranjit Atwal, August 2017.
- International Data Corporation, *Worldwide Telecommunications Spending*, August 2017.
- International Data Corporation, *Worldwide Voice and Text Messaging Communications Platform-as-a-Service Forecast, 2017-2021*, March 2017.
- Ovum, *Mobile Messaging Traffic and Revenue Forecast: 2016-21*, November 2016.
- Ovum, *OTT VoIP Forecast: 2016-21*, January 2017.

The Gartner Report described herein, (the "Gartner Report") represents research opinions or viewpoints published, as part of a syndicated subscription service, by Gartner, Inc. ("Gartner"), and are not representations of fact. The Gartner Report speaks as of its original publication date (and not as of the date of this prospectus) and the opinions expressed in the Gartner Report are subject to change without notice.

TRADEMARKS

“Bandwidth” and our other registered or common law trade names, trademarks or service marks appearing in this prospectus are our property. We own or otherwise have rights to the trademarks, service marks, copyrights and trade names, including those mentioned in this prospectus, used in conjunction with the marketing and sale of our services. This prospectus includes trademarks, which are protected under applicable intellectual property laws and are our property and the property of our subsidiaries. This prospectus also contains trademarks, service marks, copyrights and trade names of other companies, which are the property of their respective owners. Unless the context otherwise indicates, we do not intend our use or display of other companies’ trademarks, service marks, copyrights or trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies. Solely for convenience, our trademarks, service marks, trade names and copyrights referred to in this prospectus may appear without the ®,™ or © symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these trademarks, service marks, trade names and copyrights.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled “Prospectus Summary,” “Risk Factors,” “Use of Proceeds,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” contains forward-looking statements. In some cases you can identify these statements by forward-looking words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan,” “expect” or the negative or plural of these words or similar expressions. These forward-looking statements include, but are not limited to, statements concerning the following:

- The market in which we participate is highly competitive, and if we do not compete effectively, our business, results of operations and financial condition could be harmed.
- 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.
- The market for some of our services 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 services.
- If we do not develop enhancements to our services and introduce new services that achieve market acceptance, 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.
- If we are not able to maintain and enhance our brand and increase market awareness of our company and services, then our business, results of operations and financial condition may be adversely affected.
- The communications industry faces significant regulatory uncertainties and the resolution of these uncertainties could harm our business, results of operations and financial condition.
- The trading price of our Class A common stock may be volatile, and you could lose all or part of your investment.
- The dual class structure of our common stock will have the effect of concentrating voting control with those stockholders who held our capital stock prior to the completion of this offering, including our directors, executive officers and significant stockholders who will hold in the aggregate % of the voting power of our capital stock following the completion of this offering. This will limit or preclude your ability to influence corporate matters, including the election of directors, amendments to our organizational documents and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval.
- Other risk factors included under “Risk Factors” in this prospectus.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in “Risk Factors.” Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, except as required by law, neither we nor any other person

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assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

You should read this prospectus and the documents that we reference in this prospectus and have filed with the SEC as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of the shares of our Class A common stock offered by us will be approximately \$ million, based upon the initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters' over-allotment option to purchase additional shares in this offering is exercised in full, we estimate that our net proceeds will be approximately \$ million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We will not receive any proceeds from the sale of shares by the selling stockholders pursuant to the exercise by the underwriters of their option to purchase additional shares of our Class A common stock.

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ per share would increase (decrease) the net proceeds that we receive from this offering by approximately \$ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of Class A common stock offered by us would increase (decrease) the net proceeds that we receive from this offering by approximately \$ million, assuming the assumed initial public offering price remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

The principal purposes of this offering are to increase our capitalization and financial flexibility. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to us of this offering. However, we currently intend to use the net proceeds to us from this offering primarily for general corporate purposes, including sales and marketing activities, including further expansion of our product development and sales and marketing organizations, repayment of indebtedness, working capital, general and administrative matters and capital expenditures. We may also use a portion of the net proceeds for the acquisition of, or investment in, technologies, solutions or businesses that complement our business, although we have no present commitments or agreements to enter into any acquisitions or investments. We will have broad discretion over the uses of the net proceeds in this offering. Pending these uses, we intend to invest the net proceeds from this offering in short-term, investment-grade interest-bearing securities such as money market funds, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

KeyBanc Capital Markets Inc. and certain of its affiliates are lenders and/or agents under our credit facility, as well as an underwriter in this offering, and, to the extent proceeds from this offering are used to repay amounts outstanding thereunder, will receive a portion of the net proceeds from this offering in connection with the repayment of our credit facility. Interest for borrowings under our credit facility are determined by reference to (a) the highest of (i) the London interbank offered rate for loans in Eurodollars for a period of one month plus 1.00%, (ii) the Federal Funds Effective Rate plus 0.50% or (iii) the interest rate established by the Administrative Agent as the Administrative Agent's prime rate plus (b) an applicable margin, which ranges from 1.25% to 1.75% per annum based on a leverage ratio. As of June 30, 2017, we had \$41.5 million of outstanding indebtedness under our credit facility, consisting of \$39.0 million outstanding under our term loan facility and \$2.5 million outstanding under our revolving credit facility. Beginning on March 31, 2017, the term loan is payable in consecutive equal quarterly installments with the balance payable in full on November 3, 2021. See Note 7 to our consolidated financial statements included elsewhere in this prospectus for further details. The outstanding indebtedness under our credit facility was incurred for general corporate purposes and to repay existing indebtedness.

DIVIDEND POLICY

We have never declared or paid, and do not anticipate declaring or paying, any cash dividends on our capital stock. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on a number of factors, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant. In addition, the terms of our credit facility contain restrictions on our ability to declare and pay cash dividends on our capital stock.

CAPITALIZATION

The following table shows our cash and cash equivalents and our capitalization as of June 30, 2017 on:

- an actual basis after giving effect to the common stock split;
- a pro forma basis, giving effect to the Pre-IPO Reorganization; and
- a pro forma as adjusted basis, giving effect to the pro forma adjustments set forth above, our receipt of the net proceeds from our sale of shares of Class A common stock in this offering at an assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us and the use of proceeds to repay existing indebtedness.

You should read this table together with our consolidated financial statements and related notes, and the sections titled “Selected Consolidated Financial and Other Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” that are included elsewhere in this prospectus.

	As of June 30, 2017		
	Actual	Pro Forma	Pro Forma as Adjusted
	(In thousands, except share and per share information)		
Cash and cash equivalents	\$ 5,679	\$ 5,679	\$ _____
Total debt	38,714	38,714	_____
Redeemable convertible preferred stock:			
Series A preferred stock; \$0.001 par value; 1,200,000 shares authorized; 710,000 shares issued and outstanding; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	21,818	—	_____
Stockholders’ deficit:			
Old Class A common stock, \$0.001 par value; 25,000,000 ⁽¹⁾ shares authorized; 11,791,420 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	12	—	_____
Old Class B common stock, \$0.001 par value, 5,000,000 ⁽¹⁾ shares authorized; 34,840 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	—	—	_____
Class A common stock, \$0.001 par value; no shares authorized or issued, actual; 25,000,000 shares authorized and 34,840 shares issued and outstanding pro forma; _____ shares authorized and _____ shares issued and outstanding pro forma as adjusted	—	—	_____
Class B common stock, \$0.001 par value; no shares authorized or issued, actual; 5,000,000 shares authorized and 13,566,420 shares issued and outstanding, pro forma; _____ shares authorized and _____ shares issued and outstanding, pro forma as adjusted	—	14	_____
Additional paid-in capital	9,955	31,771	_____
Accumulated deficit	(26,806)	(26,806)	_____
Total stockholders’ deficit	(16,839)	4,979	_____
Total capitalization	\$ 43,693	\$ 43,693	\$ _____

(1) On October 19, 2017, the Company approved and on October 23, 2017 the Company amended its Certificate of Incorporation allowing the Company to change the total number of authorized shares as follows: (i) 30,000,000 shares of Common Stock, \$0.001 par value per

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share of which 25,000,000 shares were designated as Class A Voting Common Stock, and of which 5,000,000 shares were designated as Class B Non-Voting Common Stock and (ii) 1,200,000 shares of Preferred Stock, \$0.001 par value per share.

The table set forth above is based on the number of shares of common stock outstanding as of June 30, 2017. The table does not reflect shares of our Class A common stock reserved for issuance under the 2017 Plan, which we plan to adopt in connection with this offering.

Additionally, the information presented above assumes:

- an initial public offering price of \$ _____ per share, which is the midpoint of the price range set forth on the cover page of this prospectus;
- no exercise of the option to purchase additional shares of our Class A common stock by the underwriters; and
- the adoption of our second amended and restated certificate of incorporation and second amended and restated bylaws prior to the pricing of this offering.

Each \$1.00 increase (decrease) in the assumed public offering price of \$ _____ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, assuming completion of the Pre-IPO Reorganization and the common stock split, would increase (decrease) our pro forma additional paid-in capital and decrease (increase) total stockholders' deficit by approximately \$ _____ million and \$ _____ million, respectively, and would increase (decrease) total capitalization by approximately \$ _____ million, in each case assuming that the number of shares of Class A common stock offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting assumed underwriting discounts and commissions and other estimated offering expenses payable by us. We may also increase (decrease) the number of shares of Class A common stock we are offering. Each increase (decrease) of 1,000,000 shares in the number of shares of Class A common stock offered by us at an assumed offering price of \$ _____ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, assuming completion of the Pre-IPO Reorganization and the common stock split, would increase (decrease) our pro forma additional paid-in capital and decrease (increase) total stockholders' deficit by approximately \$ _____ million and \$ _____ million, respectively, and would increase (decrease) total capitalization by approximately \$ _____ million. The pro forma information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

If the underwriters' option to purchase additional shares of our Class A common stock from us and certain selling stockholders were exercised in full, pro forma as adjusted cash and cash equivalents, additional paid-in capital, total stockholders' deficit and shares of Class A common stock outstanding as of June 30, 2017 would be \$ _____ million, \$ _____ million, \$ _____ million and _____ shares, respectively.

DILUTION

If you invest in our Class A common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our Class A common stock and the pro forma as adjusted net tangible book value per share of our Class A common stock after this offering. Dilution results from the fact that the per share offering price of the Class A common stock is substantially in excess of the book value per share of our Class A common stock after this offering. Our pro forma net tangible book value as of June 30, 2017 was \$ million, or \$ per share of our Class A common stock. Pro forma net tangible book value per share represents our total tangible assets reduced by the amount of our total liabilities, divided by the total number of shares of our Class A common stock outstanding after giving effect to (i) the filing and effectiveness of our second amended and restated certificate of incorporation and the effectiveness of our second amended and restated bylaws, each of which will occur prior to the pricing of this offering and (ii) the automatic conversion of all outstanding shares of our convertible preferred stock into shares of Class B common stock prior to the pricing of this offering.

After giving effect to the sale of shares of Class A common stock that we are offering at an assumed initial public offering price of \$ per share, which is the midpoint of the range listed on the cover page of this prospectus, and after deducting the estimated underwriting discount and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of June 30, 2017 would have been \$ million, or \$ per share of Class A common stock. This amount represents an immediate increase in pro forma net tangible book value of \$ per share of Class A common stock to our existing stockholders before this offering and an immediate dilution in pro forma net tangible book value of \$ per share of Class A common stock to new investors purchasing shares of Class A common stock in this offering. We determine dilution by subtracting the pro forma as adjusted net tangible book value per share of Class A common stock after this offering from the amount of cash that a new investor paid for a share of Class A common stock. The following table illustrates this dilution, assuming the underwriters do not exercise their option to purchase additional shares of Class A common stock:

Assumed initial public offering price per share of Class A common stock	\$
Pro forma net tangible book value per share of Class A common stock as of June 30, 2017	\$
Increase in pro forma net tangible book value per share of Class A common stock attributable to new investors in this offering	
Pro forma as adjusted net tangible book value per share of Class A common stock immediately after this offering	<u> </u>
Dilution in pro forma net tangible book value per share of Class A common stock to new investors in this offering	<u>\$</u>

A \$1.00 increase or decrease in the assumed initial public offering price of \$ per share of Class A common stock, which is the midpoint of the range listed on the cover page of this prospectus, would increase or (decrease) the pro forma as adjusted net tangible book value per share of Class A common stock after this offering by approximately \$, and dilution in pro forma as adjusted net tangible book value per share of Class A common stock to new investors by approximately \$(), assuming that the number of shares of Class A common stock offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us. Similarly, each increase or decrease of 1,000,000 shares of Class A common stock in the number of shares offered by us would increase or decrease, as applicable, our pro forma as adjusted net tangible book value by \$ per share of Class A common stock and increase or (decrease), as applicable, the dilution to new investors by \$ per share of Class A common stock, assuming the assumed initial public offering price remains the same, and after deducting the estimated underwriting discount and estimated offering expenses payable by us.

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If the underwriters' option to purchase additional shares of Class A common stock from us and certain selling stockholders is exercised in full, the pro forma as adjusted net tangible book value per share of Class A common stock, as adjusted to give effect to this offering, would be \$ per share, and the dilution in pro forma net tangible book value per share of Class A common stock to new investors in this offering would be \$ per share.

The following table summarizes, on a pro forma basis as of June 30, 2017, the differences between the number of shares of Class A common stock purchased from us, the total consideration paid to us in cash and the average price per share that existing owners and new investors paid. The calculation below is based on an assumed initial public offering price of \$ per share of Class A common stock, which is the midpoint of the range listed on the cover page of this prospectus, before deducting the estimated underwriting discount and estimated offering expenses payable by us.

	<u>Shares of Class A Common Stock Purchased</u>		<u>Total Consideration</u>		<u>Average Price Per Share of Class A Common Stock</u>
	<u>Number</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>	
Existing stockholders		%	\$	%	\$
New investors					
Total		100.0%	\$	100.0%	

The foregoing tables and calculations are based on the number of shares of our Class A common stock outstanding as of June 30, 2017 after the completion of the common stock split and after giving effect to the Pre-IPO Reorganization, and excludes:

- 3,237,397 shares of our Class A common stock issuable upon the exercise of outstanding options as of June 30, 2017 at a weighted-average exercise price of \$6.70 per share;
- 367,462 shares of our Class B common stock issuable upon the exercise of outstanding options as of June 30, 2017 at a weighted-average exercise price of \$5.74 per share;
- 0 shares of our Class B common stock reserved for future issuance under our 2001 Stock Option Plan, 69,037 shares of our Class A common stock reserved for future grant or issuance under our 2010 Equity Compensation Plan and shares of our Class A common stock reserved for future grant or issuance under our 2017 Incentive Award Plan, each as of June 30, 2017; and
- 64,691 shares of our Class B common stock issuable upon the exercise of outstanding warrants as of June 30, 2017 at a weighted-average exercise price of \$2.31 per share.

To the extent any of these outstanding options or warrants are exercised, there will be further dilution to new investors. To the extent all of such outstanding options and warrants had been exercised as of June 30, 2017, the pro forma as adjusted net tangible book value per share of Class A common stock after this offering would be \$, and total dilution per share of Class A common stock to new investors would be \$.

Except as otherwise indicated, the above discussion and tables assume no exercise of the underwriters' option to purchase additional shares of our Class A common stock from us and the selling stockholders. If the underwriters' option to purchase additional shares of our Class A common stock were exercised in full, our existing stockholders would own % and our new investors would own % of the total number of shares of our Class A common stock outstanding upon completion of this offering.

SELECTED CONSOLIDATED FINANCIAL AND OTHER DATA

The following selected consolidated financial data should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the consolidated financial statements and related notes included within this prospectus. The consolidated statements of operations data for the years ended December 31, 2015 and 2016 and the consolidated balance sheets as of December 31, 2015 and 2016, are derived from our audited consolidated financial statements included elsewhere in this prospectus. The consolidated statements of operations data for the six months ended June 30, 2016 and 2017 and the consolidated balance sheet data as of June 30, 2017, are derived from our unaudited consolidated financial statements included elsewhere in this prospectus. We have prepared the unaudited consolidated financial statements on the same basis as the audited consolidated financial statements and have included all adjustments, consisting only of normal recurring adjustments that, in our opinion, are necessary to state fairly the financial information set forth in those statements. Our historical results are not necessarily indicative of our future results, and the results of operations for the six months ended June 30, 2017, are not necessarily indicative of the results to be expected for the full year or any other period. The selected consolidated financial data in this section are not intended to replace our consolidated financial statements and the related notes, and are qualified in their entirety by the consolidated financial statements and related notes included elsewhere in this prospectus.

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
(In thousands, except share and per share amounts)				
Consolidated Statements of Operations Data:				
Revenue:				
CPaaS revenue	\$101,502	\$117,078	\$56,651	\$63,194
Other revenue	36,299	35,057	18,118	15,957
Total revenue	137,801	152,135	74,769	79,151
Cost of revenue:				
CPaaS cost of revenue	64,760	71,218	35,379	37,147
Other cost of revenue	14,482	14,000	7,283	6,713
Total cost of revenue	79,242	85,218	42,662	43,860
Gross profit	58,559	66,917	32,107	35,291
Operating expenses:				
Research and development	7,375	8,520	3,767	5,091
Sales and marketing	8,620	9,294	4,458	4,971
General and administrative	34,602	33,859	15,672	15,894
Total operating expenses	50,597	51,673	23,897	25,956
Operating income	7,962	15,244	8,210	9,335
Other expense:				
Interest expense, net	(589)	(908)	(369)	(859)
Change in fair value of shareholders’ anti-dilutive arrangement	—	—	—	(553)
Total other expense	(589)	(908)	(369)	(1,412)
Income from continuing operations before income taxes	7,373	14,336	7,841	7,923
Income tax (provision) benefit	(408)	11,094	(269)	(2,987)
Income from continuing operations	6,965	25,430	7,572	4,936
Loss from discontinued operations, net of income taxes	(13,665)	(3,072)	(3,011)	—
Net (loss) income	<u>\$ (6,700)</u>	<u>\$ 22,358</u>	<u>\$ 4,561</u>	<u>\$ 4,936</u>

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	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands, except share and per share amounts)			
Income from continuing operations attributable to common stockholders	\$ 6,034	\$ 22,075	\$ 6,565	\$ 4,291
Income from continuing operations attributable to participating securities	931	3,355	1,007	645
Net income from continuing operations per share attributable to common stockholders, basic	\$ 0.52	\$ 1.89	\$ 0.57	\$ 0.36
Weighted-average outstanding shares used in computing net income from continuing operations per share attributable to common stockholders, basic	11,497,727	11,678,568	11,580,783	11,806,619
Net income from continuing operations per share attributable to common stockholders, diluted	\$ 0.48	\$ 1.72	\$ 0.51	\$ 0.33
Weighted-average outstanding shares used in computing net income from continuing operations per share attributable to common stockholders, diluted	12,456,540	12,870,632	12,820,334	12,977,606
Pro forma income from continuing operations per share attributable to common stockholders, basic ⁽²⁾	\$ 0.52	\$ 1.89	\$ 0.57	\$ 0.36
Weighted-average outstanding shares used in computing pro forma income from continuing operations per share attributable to common stockholders, basic ⁽²⁾	13,272,727	13,453,568	13,355,783	13,581,619
Pro forma income from continuing operations per share attributable to common stockholders, diluted ⁽²⁾	\$ 0.49	\$ 1.74	\$ 0.52	\$ 0.33
Weighted-average outstanding shares used in computing pro forma income from continuing operations per share attributable to common stockholders, diluted ⁽²⁾	14,231,540	14,645,632	14,595,334	14,572,606

	As of December 31,		As of June 30,
	2015	2016	2017
	(In thousands)		
Consolidated Balance Sheets Data:			
Cash and cash equivalents	\$ 10,059	\$ 6,788	\$ 5,679
Working capital	(26,972)	(2,427)	4,449
Property and equipment, net	10,257	11,180	11,562
Total assets	63,146	69,973	68,238
Total stockholders' deficit	(19,074)	(22,374)	(16,839)

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the consolidated financial statements and related notes that are included elsewhere in this prospectus. This discussion contains forward-looking statements 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 "Risk Factors" and in other parts of this prospectus. Our fiscal year ends on December 31.

Overview

We are a leading cloud-based communications platform for enterprises in the United States. Our solutions include a broad range of software APIs for voice and text functionality and our owned and managed, purpose-built IP voice network, one of the largest in the nation. Our sophisticated and easy-to-use software APIs allow enterprises to enhance their products and services by incorporating advanced voice and text capabilities. Companies use our platform to more frequently and seamlessly connect with their end users, add voice calling capabilities to residential IoT devices, offer end users new mobile application experiences and improve employee productivity, among other use cases. By owning and operating a capital-efficient, purpose-built IP voice network, we are able to offer advanced monitoring, reporting and analytics, superior customer service, dedicated operating teams, personalized support, and flexible cost structures. Over the last ten years, we have pioneered the CPaaS space through our innovation-rich culture and focus on empowering enterprises with end-to-end communications solutions.

Our voice software APIs allow enterprises to make and receive phone calls and create advanced voice experiences. Integration with our purpose-built IP voice network ensures enterprise-grade functionality and secure, high-quality connections. Our messaging software APIs provide enterprises with advanced tools to connect with end users via messaging. Our customers also use our solutions to enable 911 response capabilities, real-time provisioning and activation of phone numbers and toll-free number messaging.

We are the only CPaaS provider in the industry with our own nationwide IP voice network, which we have purpose-built for our platform. Our network is capital-efficient and custom-built to support the applications and experiences that make a difference in the way enterprises communicate. Since a communications platform is only as strong as the network that backs it, we believe our network provides a significant competitive advantage in the control, quality, pricing power and scalability of our offering. We are able to control the quality and provide the support our customers expect, as well as efficiently meet scalability and cost requirements.

Segments

Our business is organized into two segments:

CPaaS Segment. Our CPaaS segment includes our software-powered platform, which empowers customers with highly sophisticated yet easy-to-use software APIs to customize and scale their communications solutions rapidly and securely in a seamless manner. We define and calculate our CPaaS business as all voice and text communications services we provide customers through our software API or web-based user interfaces and our IP voice network infrastructure. For the years ended December 31, 2015 and 2016 and the six months ended June 30, 2016 and 2017, CPaaS revenue accounted for 74%, 77%, 76% and 80% of our total revenue, respectively.

Other Segment. Our Other segment consists of all revenue other than that generated from our CPaaS segment. This includes our legacy services—SIP trunking, data resale and hosted voice—which require limited resources to operate and minimal to no expected investment in the future. Our Other segment also includes revenue from the carrier access billing system, SMS registration fees and other miscellaneous product lines, which we expect will continue to generate revenue even as our legacy services revenue declines.

Factors Affecting Our Performance

Our financial performance will be affected by our ability to grow our business, as well as the impact of seasonality from period-to-period. We believe that the growth of our business and our future success are dependent upon a number of factors, including our ability to acquire new CPaaS customers, grow our existing CPaaS customer base and make investments for growth and scale. While each of these areas presents significant opportunities for us, they also pose important challenges that we must successfully address in order to sustain the growth of our business and improve our results of operations. Our future growth and profitability will depend upon many variables, including the success of our growth strategies and the timing and size of investments and expenditures that we choose to undertake, as well as market growth and other factors that are not within our control. We expect to use the proceeds from this offering to fund these growth strategies and to continue to expand our business.

Acquiring New CPaaS Customers

We believe that the shift from legacy communications solutions to a modern software-driven cloud-based communications platform is in its early stages. We intend to target our CPaaS solutions to large enterprises and fast-growing businesses that want to leverage our platform as a part of their service offering by continuing to invest in expanding our sales organization. We target these enterprises because they capture a substantial part of the demand for advanced communications capabilities in the United States and we believe these enterprises are likely to realize the greatest value from our enterprise-grade platform. We are also committed to supporting our expanded sales team with more robust marketing programs to improve our brand awareness.

Our business and results of operations will depend on our ability to continue to add new enterprises as CPaaS customers. In some instances, we may acquire enterprise customers that may scale their usage of our platform rapidly and may cause fluctuations in our results of operations and financial metrics and make forecasting our future results of operations and financial metrics more difficult.

Expanding Penetration Within Our Existing CPaaS Customer Base

Our CPaaS customers often start with small deployments on our platform and then expand their usage significantly as they derive value from using our platform. Our business and results of operations will depend on our ability to expand our existing customers' use of our platform services. We believe that there is a significant opportunity to drive additional sales to existing customers, and expect to invest in sales, marketing and customer support to achieve additional revenue growth from existing customers.

Investments in Future Growth

We believe that we are only beginning to penetrate our market opportunity with large enterprises, and we intend to continue to invest to grow our customer base. We expect to continue to make significant investments in R&D activities, including by further developing our platform features to support new use cases. We also plan to continue to invest in operational and administrative functions to support our expected growth and our transition to a public company.

Investments for Scale

As our business grows, we plan to continue to invest in our IP voice network and platform optimization efforts. Ultimately, we expect to realize cost savings through economies of scale, but we may incur costs during phases of expansion and optimization. Historically, we have made minimal investments to maintain our network and platform. The majority of our investments for scale have been success-based capital expenditures fueled by customer demand, and we expect this to continue in the future.

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Seasonality

Although we have not historically experienced significant seasonality with respect to our revenue throughout the year, we have seen seasonality related to the usage-based revenue from our enterprise customers. Usage from our customers is affected by the number of business days in a month. Traditionally, seasonality in the fourth quarter results in lower usage revenue due to the amount of business days and number of holidays in November and December. Historically, the impact of fewer business days in the fourth quarter is consistent from year-to-year. However, to the extent this seasonality is more pronounced in the future, it may cause fluctuations in our results of operations and financial metrics. Monthly recurring charges associated with phone numbers and 911-enabled phone numbers are not dependent upon the number of business days in a month, and are therefore not subject to the seasonality related to our usage-based revenue.

Key Performance Indicators

We monitor the following KPIs to help us evaluate our business, identify trends affecting our business, formulate business plans, and make strategic decisions. We believe the following KPIs are useful in evaluating our business:

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(Dollars in thousands)			
Number of active CPaaS customer accounts (as of balance sheet date)	704	798	756	865
Dollar-based net retention rate	115%	111%	112%	107%
Adjusted EBITDA	\$18,912	\$23,470	\$12,269	\$12,655
Free cash flow	\$13,549	\$10,881	\$ 7,185	\$ 2,285

Number of Active CPaaS Customer Accounts

We believe that the number of active CPaaS customer accounts is an important indicator of the growth of our business, the market acceptance of our platform and our future revenue trends. We define an active CPaaS 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 \$100 of revenue in the last month of the period. We believe that the use of our platform by active CPaaS customer accounts at or above the \$100 per month threshold is a stronger indicator of potential future engagement than trial usage of our platform at levels below \$100 per month. A single organization may constitute multiple unique active CPaaS customer accounts if it has multiple unique account identifiers, each of which is treated as a separate active CPaaS customer account. As of June 30, 2017, with the exception of two active CPaaS customer accounts that were part of the same organization, all other active CPaaS customer accounts were related to unique organizations. Customers who pay after using our platform and customers that have credit balances are included in the number of active CPaaS customer accounts. Customers from our Other segment are excluded in the number of active CPaaS customer accounts, unless they are also CPaaS customers. In each of the years ended December 31, 2015 and 2016 and the six months ended June 30, 2017, revenue from active CPaaS customer accounts represented approximately 99% of total CPaaS revenue.

Dollar-based Net Retention Rate

Our ability to drive growth and generate incremental revenue depends, in part, on our ability to maintain and grow our relationships with our existing customers that generate CPaaS revenue and seek to increase their use of our platform. We track our performance in this area by measuring the dollar-based net retention rate for our customers who generate CPaaS revenue. Our dollar-based net retention rate compares the CPaaS revenue from customers in a quarter to the same quarter in the prior year. To calculate the dollar-based net retention rate, we first identify the cohort of customers that generate CPaaS revenue and that were customers in the same quarter of

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the prior year. The dollar-based net retention rate is obtained by dividing the CPaaS revenue generated from that cohort in a quarter, by the CPaaS revenue generated from that same cohort in the corresponding quarter in the prior year. When we calculate dollar-based net retention rate for periods longer than one quarter, we use the average of the quarterly dollar-based net retention rates for the quarters in such period.

Our dollar-based net retention rate increases when such customers increase usage of a product, extend usage of a product to new applications or adopt a new product. Our dollar-based net retention rate decreases when such customers cease or reduce usage of a product or when we lower prices on our solutions. As our customers grow their business and extend the use of our platform, they sometimes create multiple customer accounts with us for operational or other reasons. As such, when we identify a significant customer organization (defined as a single customer organization generating more than 1% of CPaaS revenue in a quarterly reporting period) that has created a new CPaaS customer, this new customer is tied to, and CPaaS revenue from this new customer is included with, the original CPaaS customer for the purposes of calculating this metric. For the six months ended June 30, 2017, our dollar-based net retention rate was 107%, compared to 112% in the same period in 2016. The primary driver of this decrease was our decision to curtail services to strategic competitors. For the year ended December 31, 2016, our dollar-based net retention rate was 111%, compared to 115% for the year ended December 31, 2015. This decrease was driven by the decision to lower pricing in exchange for contract extensions with certain of our key customers.

Non-GAAP Financial Measures

We use adjusted EBITDA, adjusted gross profit, adjusted gross margin and free cash flow for financial and operational decision making and to evaluate period-to-period differences in our performance. Adjusted EBITDA, adjusted gross profit, adjusted gross margin and free cash flow are non-GAAP financial measures, which we believe are useful for investors in evaluating our overall financial performance. We believe these measures provide useful information about operating results, enhance the overall understanding of past financial performance and future prospects and allow for greater transparency with respect to key performance indicators used by management in its financial and operational decision making. For a reconciliation of each of the non-GAAP financial measures described below, see “—Reconciliation of Non-GAAP Financial Measures.”

Adjusted EBITDA

We define adjusted EBITDA as net income or losses from continuing operations, adjusted to reflect the addition or elimination of certain income statement items including, but not limited to:

- income tax expense (benefit);
- interest expense, net;
- depreciation and amortization expense;
- stock-based compensation expense;
- impairment of intangible assets;
- loss (gain) from disposal of property and equipment; and
- change in fair value of financial instruments, including any change in shareholders’ anti-dilutive arrangements.

Adjusted EBITDA is a key measure used by management to understand and evaluate our core operating performance and trends, to generate future operating plans and to make strategic decisions regarding the allocation of capital. In particular, the exclusion of certain expenses in calculating adjusted EBITDA facilitates comparisons of our operating performance on a period-to-period basis.

Adjusted Gross Profit and Adjusted Gross Margin

GAAP defines gross profit as revenue less cost of revenue. Cost of revenue includes all expenses associated with our various service offerings as more fully described under the caption “—Key Components of Statement of Operations—Cost of Revenue and Gross Margin.” We define adjusted gross profit as gross profit after adding back the following items:

- depreciation and amortization; and
- stock-based compensation.

We add back depreciation and amortization and stock-based compensation because they are non-cash items. We eliminate the impact of these non-cash items because we do not consider them indicative of our core operating performance. Their exclusion facilitates comparisons of our operating performance on a period-to-period basis. Therefore, we believe that showing gross margin, as adjusted to remove the impact of these non-cash expenses, such as depreciation, amortization and stock-based compensation, is helpful to investors in assessing our gross profit and gross margin performance in a way that is similar to how management assesses our performance.

We calculate adjusted gross margin by dividing adjusted gross profit by revenue, expressed as a percentage of revenue.

Management uses adjusted gross profit and adjusted gross margin to evaluate operating performance and to determine resource allocation among our various service offerings. We believe that adjusted gross profit and adjusted gross margin provide useful information to investors and others to understand and evaluate our operating results in the same manner as our management and board of directors and allows for better comparison of financial results among our competitors. Adjusted gross profit and adjusted gross margin may not be comparable to similarly titled measures of other companies because other companies may not calculate adjusted gross profit and adjusted gross margin or similarly titled measures in the same manner as we do.

Adjusted Net (Loss) Income

We define adjusted net (loss) income as net income adjusted for certain items affecting period to period comparability. Adjusted net (loss) income excludes:

- stock-based compensation;
- change in fair value of stockholders’ antidilutive arrangement;
- amortization of acquired intangible assets related to the Dash acquisition;
- impairment charges of intangibles assets;
- loss (gain) on disposal of property and equipment; and
- estimated tax impact of above adjustments.

We believe that adjusted net (loss) income is a meaningful measure because by removing certain non-recurring charges and non-cash expenses we present our operating results directly associated with the period’s performance. We believe the use of adjusted net (loss) income 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.

Free Cash Flow

Free cash flow represents net cash provided by (used in) operating activities from continuing operations less net cash used in investing activities from continuing operations. We believe that free cash flow is a useful

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indicator of liquidity and provides information to management and investors about the amount of cash generated from our core operations that can be used for investing in our business. Free cash flow has certain limitations in that it does not represent the total increase or decrease in the cash balance for the period, nor does it represent the residual cash flows available for discretionary expenditures. Therefore, it is important to evaluate free cash flow along with our consolidated statements of cash flows.

Acquisitions and Dispositions

Republic Wireless

On April 20, 2015, we created a wholly owned subsidiary, Republic Wireless, Inc., which was incorporated in Delaware. On November 30, 2016, we completed a pro-rata distribution of the common stock of Republic Wireless to our shareholders of record in a tax-free spin-off. In connection with the Spin-Off, we entered into a number of services agreements with Republic Wireless (the "Transition Services Agreements"). See "Certain Relationships and Related Party Transactions—Transactions with Republic Wireless."

Dash

On February 22, 2011, we acquired substantially all of the assets of Dash Carrier Services, LLC and related entities, together a provider of 911 services, for total consideration of \$21.1 million. We used substantially all of the proceeds of our only institutional equity financing to finance the acquisition. In connection with the acquisition, we recorded \$6.9 million of goodwill.

Key Components of Statements of Operations

Revenue

We derive a majority of our revenue from our CPaaS segment. For the years ended December 31, 2015 and 2016 and the six months ended June 30, 2016 and 2017 we generated 74%, 77%, 76% and 80%, respectively, of our total revenue from our CPaaS customers. CPaaS revenue is derived from voice usage, phone number services, 911-enabled phone number services, messaging services and other services. For the year ended December 31, 2016, our voice usage, phone number services, 911-enabled phone number services, messaging service and other services accounted for 53%, 22%, 18%, 4% and 3% of our CPaaS revenue, respectively. We expect voice minutes and messaging services to increase as a percentage of CPaaS revenue in the future. We derive a portion of our CPaaS revenue from usage-based fees which includes voice calling and messaging services. For the years ended December 31, 2015 and 2016 and the six months ended June 30, 2016 and 2017 we generated 55%, 56%, 56% and 57% of our CPaaS revenue, respectively, from usage-based fees. We also earn monthly fees from services such as phone number services and 911 access service. We generated 42% of our CPaaS revenue in 2015 and 41% of our CPaaS revenue in 2016 and for the six months ended June 30, 2016 and June 30, 2017 from monthly per unit fees. The remaining 2-3% of our CPaaS revenue is generated from other miscellaneous services.

The remainder of our revenue is generated by our Other segment. Other revenue made up 26%, 23%, 24% and 20% of our total revenue in the years ended December 31, 2015 and 2016 and the six months ended June 30, 2016 and 2017, respectively. Other revenue is composed of revenue earned from our legacy services and indirect revenue. For the years ended December 31, 2015 and 2016 and the six months ended June 30, 2016 and 2017 we generated \$24.3 million, \$20.1 million, \$10.5 million and \$8.9 million in revenue from our legacy services and \$12.0 million, \$15.0 million, \$7.6 million and \$7.0 million from indirect revenue, respectively. Other revenue as a percentage of total revenue is expected to continue to decline over time.

Customers typically pay for usage in arrears and pay one month in advance for monthly recurring fees and set up fees. The majority of our customers enter into contracts which specify the product they are purchasing and the rates for each product. Customers sometimes have minimum monthly usage commitments through a specified ramp-up period. Larger customers receive volume discounts in the form of monthly tiered pricing.

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We recognize accounts receivable at the time the customer is invoiced. Additionally, we record a receivable and revenue for unbilled revenue if the services have been delivered and are billable in subsequent periods. Unbilled revenue made up 47%, 44% and 46% of outstanding accounts receivable, net of allowance for doubtful accounts as of December 31, 2015, December 31, 2016 and June 30, 2017, respectively.

Cost of Revenue and Gross Margin

CPaaS cost of revenue consists primarily of fees paid to other network service providers from whom we buy services such as minutes of use, phone numbers, messages, porting of customer numbers and network circuits. Cost of revenue also contains costs related to support of our IP voice network, web services, cloud infrastructure, capacity planning and management, rent for network facilities, software licenses, hardware and software maintenance fees and network engineering services. Personnel costs (including non-cash stock-based compensation expenses) associated with personnel who are responsible for the delivery of services, operation and maintenance of our communications network, and customer support as well as, third-party support agreements and depreciation of network equipment, amortization of internally developed software and gain (loss) on disposal of property and equipment are also included in cost of revenue.

Other cost of revenue consists of costs supporting non-CPaaS services including leased circuit costs paid to third party providers, internet connectivity expenses, minutes of use, direct operations, contractors, regulatory fees, surcharges and other pass-through costs and software and hardware maintenance fees.

Gross margin is calculated by subtracting cost of revenue from revenue, divided by total revenue, expressed as a percentage. Our cost of revenue and gross margin have been, and will continue to be, affected by several factors, including the timing and extent of our investments in our network, our ability to manage off-network minutes of use and messaging costs, the product mix of revenue, the timing of amortization of capitalized software development costs and the extent to which we periodically choose to pass on any cost savings 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, bonuses, and stock-based compensation expenses. We also incur other non-personnel costs related to our general overhead expenses, including facility expenses, software licenses, web services, depreciation and amortization of assets unrelated to delivery of our services. We expect that our operating expenses will increase in absolute dollars.

Research and Development

R&D expenses consist primarily of personnel costs (including non-cash stock-based compensation expenses), outsourced software development and engineering service and cloud infrastructure fees for staging and development of outsourced engineering services. We capitalize the portion of our software development costs in instances where we invest resources to develop software for internal use. We plan to use a portion of the net proceeds from this offering to increase our investment in R&D to enhance current product offerings and develop new services.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel costs, including commissions for our sales employees and non-cash stock-based compensation expenses. Sales and marketing expenses also include expenditures related to advertising, marketing, our brand awareness activities, sales support and professional services fees.

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We focus our sales and marketing efforts on creating sales leads and establishing and promoting our brand. We plan to use a portion of the net proceeds from this offering to increase the investment in sales and marketing in order to expand our CPaaS customer base by growing headcount, driving our go-to-market strategies, building brand awareness, advertising and sponsoring additional marketing events.

General and Administrative

General and administrative expenses consist primarily of personnel costs, including stock-based compensation, for our accounting, finance, legal, human resources and administrative support personnel and executives. General and administrative expenses also include costs related to product management and reporting, customer billing and collection functions, information services, professional services fees, credit card processing fees, rent associated with our headquarters in Raleigh, North Carolina and our other offices, and depreciation and amortization. We expect that we will incur increased costs associated with supporting the growth of our business and to meet the increased compliance requirements associated with our transition to, and operation as, a public company.

Income Taxes

Our income tax expense and effective tax rate are impacted by the establishment or release of deferred tax asset valuation allowances. For example, in the fourth quarter of 2016, as a result of the Spin-Off, our evaluation of available positive and negative evidence resulted in a judgment that the realization of the tax benefits for deferred tax assets did meet the “more likely than not” standard and therefore we recognized a \$14.1 million benefit due to the release of the deferred tax asset valuation allowance subsequent to the Spin-Off. Additionally, we have federal and state net operating loss carryforwards that expire at various dates beginning in 2035 and 2020, respectively. The federal credit carryforwards begin to expire in 2030. Our future utilization of net operating losses and credits may be limited if certain changes in ownership occur.

Results of Operations

Consolidated Results of Operations

The following table sets forth the consolidated statements of operations for the periods indicated.

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Revenue				
CPaaS revenue	\$101,502	\$117,078	\$56,651	\$63,194
Other revenue	36,299	35,057	18,118	15,957
Total revenue	<u>137,801</u>	<u>152,135</u>	<u>74,769</u>	<u>79,151</u>
Cost of revenue				
CPaaS cost of revenue	64,760	71,218	35,379	37,147
Other cost of revenue	14,482	14,000	7,283	6,713
Total cost of revenue	<u>79,242</u>	<u>85,218</u>	<u>42,662</u>	<u>43,860</u>
Gross profit				
CPaaS	36,742	45,860	21,272	26,047
Other	21,817	21,057	10,835	9,244
Total gross profit	<u>58,559</u>	<u>66,917</u>	<u>32,107</u>	<u>35,291</u>
Operating expenses				
Research and development	7,375	8,520	3,767	5,091
Sales and marketing	8,620	9,294	4,458	4,971
General and administrative	34,602	33,859	15,672	15,894
Total operating expenses	<u>50,597</u>	<u>51,673</u>	<u>23,897</u>	<u>25,956</u>
Operating income	7,962	15,244	8,210	9,335
Other expense				
Interest expense, net	(589)	(908)	(369)	(859)
Change in fair value of shareholders' anti-dilutive arrangement	—	—	—	(553)
Income from continuing operations before income taxes	7,373	14,336	7,841	7,923
Income tax (provision) benefit	(408)	11,094	(269)	(2,987)
Income from continuing operations	6,965	25,430	7,572	4,936
(Loss) from discontinued operations, net of income tax	(13,665)	(3,072)	(3,011)	—
Net (loss) income	<u>\$ (6,700)</u>	<u>\$ 22,358</u>	<u>\$ 4,561</u>	<u>\$ 4,936</u>

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The following table sets forth our results of operations as a percentage of our total revenue for the periods presented.

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
Revenue				
CPaaS revenue	74%	77%	76%	80%
Other revenue	26%	23%	24%	20%
Total revenue	100%	100%	100%	100%
Cost of revenue				
CPaaS cost of revenue	64%	61%	62%	59%
Other cost of revenue	40%	40%	40%	42%
Total cost of revenue	58%	56%	57%	55%
Gross profit				
CPaaS	36%	39%	38%	41%
Other	60%	60%	60%	58%
Total gross profit	42%	44%	43%	45%
Operating expenses				
Research and development	5%	6%	5%	6%
Sales and marketing	6%	6%	6%	6%
General and administrative	25%	22%	21%	20%
Total operating expenses	37%	34%	32%	33%
Operating income	6%	10%	11%	12%
Other expense				
Interest expense, net	0%	(1)%	0%	(1)%
Change in fair value of shareholders' anti-dilutive arrangement	—	—	—	(1)%
Income from continuing operations before income taxes	5%	9%	10%	10%
Income tax provision (benefit)	0%	(7)%	0%	4%
Income from continuing operations	5%	17%	10%	6%
Loss from discontinued operations, net of income tax	(10)%	(2)%	(4)%	—
Net (loss) income	(5)%	15%	6%	6%

Comparison of the Six Months Ended June 30, 2016 and 2017

Revenue

	Six months ended June 30,		Change	
	2016	2017		
(In thousands)				
CPaaS revenue	\$56,651	\$63,194	\$ 6,543	12%
Other revenue	18,118	15,957	(2,161)	(12)%
Total revenue	<u>\$74,769</u>	<u>\$79,151</u>	<u>\$ 4,382</u>	6%

For the six months ended June 30, 2017, total revenue increased by \$4.4 million, or 6%, compared to the same period in 2016. CPaaS revenue increased by \$6.5 million, or 12%, compared to the same period in 2016. As a percentage of total revenue, CPaaS revenue increased from 76% to 80% from the six months ended June 30,

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2016 to June 30, 2017. The increase in CPaaS revenue was primarily attributable to an increase in the usage of all our service offerings, particularly our voice and messaging usage, which accounted for \$7.4 million of the increase in CPaaS revenue, and additionally our phone number services and 911-enabled phone number services, which accounted for \$1.8 million of the increase in CPaaS revenue. This overall increase in CPaaS revenue was partially offset by \$2.6 million related to pricing decreases that we have implemented over time with our customers in the form of lower usage prices to increase the reach and scale of our platform. The changes in usage and price in the six months ended June 30, 2017 were reflected in our dollar-based net retention rate of 107%. The decline in the dollar-based net retention rate in the six months ended June 30, 2017 was primarily due to a strategic decision to no longer service a particular customer. The increase in usage was also attributable to a 14% increase in the number of active CPaaS customer accounts, from 756 as of June 30, 2016 to 865 as of June 30, 2017. In addition, revenue from new CPaaS customers contributed \$2.6 million, or 5%, to CPaaS revenue for the six months ended June 30, 2017 compared to \$2.1 million, or 4%, to CPaaS revenue in the same period in 2016. Other revenue decreased by \$2.2 million, driven by the expected decline in legacy services of \$1.6 million and decreases in indirect revenue of \$0.6 million.

Cost of Revenue and Gross Margin

	Six months ended June 30,		Change	
	2016	2017		
	(In thousands)			
Cost of revenue:				
CPaaS cost of revenue	\$35,379	\$37,147	\$1,768	5%
Other cost of revenue	7,283	6,713	(570)	(8)%
Total cost of revenue	<u>\$42,662</u>	<u>\$43,860</u>	<u>\$1,198</u>	3%
Gross profit	<u>\$32,107</u>	<u>\$35,291</u>	<u>\$3,184</u>	10%
Gross margin:				
CPaaS	38%	41%		
Other	60%	58%		
Total gross margin	43%	45%		

For the six months ended June 30, 2017, total cost of revenue increased by \$1.2 million and total gross margin increased by 2% due to improved CPaaS gross margin. CPaaS cost of revenue increased by \$1.8 million, or 5%. This increase in cost of revenue was attributable to increased customer usage, partially offset by a decline in unit costs for 911, phone numbers and voice services. CPaaS cost of revenue increases were comprised of a \$0.3 million increase in network costs, a \$0.4 million increase in cost of phone numbers, a \$0.5 million increase in cost of messaging and a \$0.4 million increase in cost of voice minutes. CPaaS gross margin increased from 38% for the six months ended June 30, 2016 to 41% for the six months ended June 30, 2017. Without taking into account the impact of depreciation of \$2.3 million for the six months ended June 30, 2016 and depreciation of \$2.1 million for the six months ended June 30, 2017, CPaaS adjusted gross margin would have been 42% and 45% for the six months ended June 30, 2016 and 2017, respectively, and total gross margin would have been 46% and 47% for the six months ended June 30, 2016 and 2017, respectively.

Cost of Other revenue decreased by \$0.6 million as the churn in legacy services drove lower overall costs from our third-party carriers. Other gross margin declined by 2% due to revenue churn and the reduction of indirect revenue.

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	Six months ended June 30,		Change	
	2016	2017		
	(In thousands)			
Research and development	\$ 3,767	\$ 5,091	\$1,324	35%
Sales and marketing	4,458	4,971	513	12%
General and administrative	15,672	15,894	222	1%
Total operating expenses	<u>\$23,897</u>	<u>\$25,956</u>	<u>\$2,059</u>	9%

For the six months ended June 30, 2017, research and development expenses increased by \$1.3 million, or 35%, compared to the same period in 2016. This increase is due primarily to an increase in research and development headcount and contracted development.

For the six months ended June 30, 2017, sales and marketing expenses increased by \$0.5 million, compared to the same period in 2016, also due primarily to additional headcount in the sales organization to accelerate CPaaS revenue growth.

General and administrative expenses increased by \$0.2 million for the six months ended June 30, 2017 compared to the same period in 2016. This increase was due to an increase in consulting costs partially offset by billing of transition service expenses for corporate support provided to Republic Wireless under the Transition Services Agreements.

Interest Expense, Net

For the six months ended June 30, 2017 interest expense increased by \$0.5 million, compared to the same period in 2016 due to increased borrowings under our credit facility that we entered into in November 2016.

Income Tax Expense

For the six months ended June 30, 2017 income tax expense increased by \$2.7 million compared to the same period in 2016 due to the valuation allowance release in 2016 subsequent to the Spin-Off. The effective tax rate for the six months ended June 30, 2017 was 37.7% compared to 3.4% for the six months ended June 30, 2016.

Loss from Discontinued Operations, Net of Income Taxes

For the six months ended June 30, 2017 loss from discontinued operations decreased by \$3.0 million, compared to the same period in 2016 due to the Spin-Off which occurred on November 30, 2016.

Comparison of the Years Ended December 31, 2015 and 2016**Revenue**

	Year ended December 31,		Change	
	2015	2016		
	(In thousands)			
CPaaS revenue	\$101,502	\$117,078	\$15,576	15%
Other revenue	36,299	35,057	(1,242)	(3)%
Total revenue	<u>\$137,801</u>	<u>\$152,135</u>	<u>\$14,334</u>	10%

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In 2016, total revenue increased by \$14.3 million, or 10%, compared to 2015. CPaaS revenue increased by \$15.6 million, or 15%, compared to the prior year. As a percentage of total revenue, CPaaS revenue increased from 74% to 77% year over year. The increase in CPaaS revenue was primarily attributable to an increase in the usage of all our service offerings, particularly our voice and messaging usage, which accounted for \$8.6 million of the increase in CPaaS revenue, and additionally our phone number services and 911-enabled phone number services, which accounted for \$7.4 million of the increase in CPaaS revenue. This overall increase in CPaaS revenue was partially offset by \$0.4 million related to pricing decreases that we have implemented over time with our customers in the form of lower usage prices to increase the reach and scale of our platform, as well as in exchange for contract renewals for certain key customers. The changes in usage and price for the year ended December 31, 2016 were reflected in our dollar-based net retention rate of 111%. The increase in usage was also attributable to a 13% increase in the number of active CPaaS customer accounts, from 704 as of December 31, 2015 to 798 as of December 31, 2016. In addition, revenue from new CPaaS customers contributed \$4.2 million, or 4%, to CPaaS revenue year over year. Other revenue decreased by \$1.2 million, or 3%, due to declines in our legacy services of \$4.2 million, partially offset by a \$3.0 million increase in indirect revenue related to new messaging and toll-free number registration fees.

Cost of Revenue and Gross Margin

	Years ended December 31,		Change	
	2015	2016		
	(In thousands)			
Cost of revenue:				
CPaaS cost of revenue	\$64,760	\$71,218	\$6,458	10%
Other cost of revenue	14,482	14,000	(482)	(3)%
Total cost of revenue	<u>\$79,242</u>	<u>\$85,218</u>	<u>\$5,976</u>	8%
Gross profit	<u>\$58,559</u>	<u>\$66,917</u>	<u>\$8,358</u>	14%
Gross margin:				
CPaaS	36%	39%		
Other	60%	60%		
Total gross margin %	42%	44%		

Total gross profit increased by \$8.4 million in 2016 as compared to 2015 and total gross margin increased from 42% to 44% from 2015 to 2016. CPaaS cost of revenue increased by \$6.5 million, or 10%, in 2016. All CPaaS services saw an increase in cost of revenue but the overall increase was largely driven by the cost for minutes of use, which increased by \$3.4 million due to growth in minutes used by customers, partially offset by a slight decrease in the cost per minute. Network costs increased by \$2.0 million and cost of messaging increased by \$0.5 million. Cost of phone numbers increased by \$0.4 million due to an increase in phone numbers used by customers, partially offset by decreased cost per phone number. 911 costs remained constant due to an increase 911-enabled phone numbers used by customers, partially offset by decreased cost per record. CPaaS gross margin increased from 36% for the year ended December 31, 2015 to 39% for the year ended December 31, 2016. Without taking into account the impact of depreciation of \$5.2 million and stock-based compensation of \$0.1 million for the year ended December 31, 2015 and depreciation of \$4.5 million, stock-based compensation expenses of \$0.1 million for the year ended December 31, 2016, CPaaS adjusted gross margin would have been 41% and 43% for the years ended December 31, 2015 and 2016, respectively, and total gross margin would have been 46% and 47% for the same periods.

Cost of Other revenue decreased by \$0.5 million, which was due to a \$2.1 million decrease as a result of churn in legacy services, partially offset by a \$1.6 million increase in cost of indirect revenue from 2015 to 2016 related to new required messaging and toll-free number registration fees. Total gross margin was affected by churn and a reduction in indirect margins.

Operating Expenses

	Years ended December 31,		Change	
	2015	2016		
	(in thousands)			
Research and development	\$ 7,375	\$ 8,520	\$1,145	16%
Sales and marketing	8,620	9,294	674	8%
General and administrative	34,602	33,859	(743)	(2)%
Total operating expenses	<u>\$50,597</u>	<u>\$51,673</u>	<u>\$1,076</u>	2%

For the year ended December 31, 2016, R&D expenses increased by \$1.1 million, or 16%, compared to the year ended December 31, 2015. This increase was due primarily to increases in hosting software costs and increased headcount.

For the year ended December 31, 2016, sales and marketing expenses increased by \$0.7 million, or 8%, compared to the year ended December 31, 2015 due to an overall increase in sales headcount.

General and administrative expenses decreased by \$0.7 million for the year ended December 31, 2016, or 2%, compared to the year ended December 31, 2015 mostly due to a decrease in stock-based compensation expenses. This decrease was partially offset by increases in headcount, increases from gains on fixed asset disposals, increases in consulting fees and increased rent.

Interest Expense, Net

For the year ended December 31, 2016 interest expense increased by \$0.3 million compared to the same period in 2015 due to increased borrowings on our credit facility that we entered into in November 2016.

Income Tax Expense

For the year ended December 31, 2016 income tax expense decreased by \$11.5 million compared to the same period in 2015 due to the release of the valuation allowance in 2016 subsequent to the Spin-Off. The effective tax rate for the year ended December 31, 2016 was (77.4)% compared to 5.5% for the year ended December 31, 2015.

Loss from Discontinued Operations, Net of Income Tax

For the year ended December 31, 2016, loss from discontinued operations decreased by \$10.6 million compared to the same period in 2015 due to the Spin-Off in December 2016.

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Quarterly Results

The following tables set forth our unaudited quarterly statements of operations data for each of the six quarters ended June 30, 2017. The information for each quarter has been prepared on a basis consistent with our audited consolidated financial statements included in this prospectus, 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.

	Three months ended					
	March 31, 2016	June 30, 2016	Sept. 30, 2016	Dec. 31, 2016	March 31, 2017	June 30, 2017
	(In thousands)					
Revenue:						
CPaaS revenue	\$ 27,735	\$28,916	\$30,249	\$30,178	\$ 31,647	\$31,547
Other revenue	9,204	8,914	8,354	8,585	7,978	7,979
Total revenue	36,939	37,830	38,603	38,763	39,625	39,526
Cost of revenue:						
CPaaS cost of revenue	17,220	18,159	18,197	17,642	18,228	18,919
Other cost of revenue	3,792	3,491	3,317	3,400	3,338	3,375
Total cost of revenue	21,012	21,650	21,514	21,042	21,566	22,294
Gross profit:						
CPaaS gross profit	10,515	10,757	12,052	12,536	13,419	12,628
Other gross profit	5,412	5,423	5,037	5,185	4,640	4,604
Total gross profit	15,927	16,180	17,089	17,721	18,059	17,232
Operating expenses:						
Research and development	1,854	1,913	2,390	2,363	2,682	2,409
Sales and marketing	2,189	2,269	2,418	2,418	2,558	2,413
General and administrative	7,455	8,217	7,898	10,289	7,637	8,257
Total operating expenses	11,498	12,399	12,706	15,070	12,877	13,079
Operating income	4,429	3,781	4,383	2,651	5,182	4,153
Change in fair value of shareholders' anti-dilutive arrangement	—	—	—	—	—	(553)
Interest expense	(184)	(185)	(229)	(310)	(421)	(438)
Income from continuing operations before income taxes	4,245	3,596	4,154	2,341	4,761	3,162
Income tax (provision) benefit	(182)	(87)	(137)	11,500	(1,772)	(1,215)
Income from continuing operations	4,063	3,509	4,017	13,841	2,989	1,947
(Loss) income from discontinued operations, net of income tax	(1,028)	(1,983)	(728)	667	—	—
Net income	<u>\$ 3,035</u>	<u>\$ 1,526</u>	<u>\$ 3,289</u>	<u>\$14,508</u>	<u>\$ 2,989</u>	<u>\$ 1,947</u>

Liquidity and Capital Resources

To date, our principal sources of liquidity have been the free cash flow driven by payments received from customers using our services, as well as borrowings under our senior secured credit facility. We believe that our cash and cash equivalents balances, our credit facility and 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.

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Statement of Cash Flows

The following table summarizes our cash flows from continuing operations for the periods indicated:

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Net cash provided by operating activities from continuing operations	\$18,651	\$16,942	\$10,553	\$ 5,080
Net cash used by investing activities from continuing operations	(5,102)	(6,061)	(3,368)	(2,795)
Net cash provided by (used in) financing activities from continuing operations	11,038	(1,053)	(659)	(3,394)
Net increase (decrease) in cash and cash equivalents	<u>\$24,587</u>	<u>\$ 9,828</u>	<u>\$ 6,526</u>	<u>\$(1,109)</u>

Cash Flows from Operating Activities

For the six months ended June 30, 2017, cash provided by operating activities from continuing operations was \$5.1 million, which primarily consisted of net income of \$4.9 million, depreciation and amortization of \$2.8 million, deferred taxes of \$2.5 million, change in fair value of shareholders' anti-dilutive arrangement of \$0.6 million and stock-based compensation expenses of \$0.5 million, partially offset by a decrease in working capital of \$6.2 million. Working capital consisted primarily of decreases in accounts payable of \$2.9 million, accrued liabilities of \$2.2 million and an increase in prepaid expenses and other assets of \$1.2 million.

For the six months ended June 30, 2016, cash provided by operating activities from continuing operations was \$10.6 million, which primarily consisted of net income of \$4.6 million, depreciation and amortization of \$3.2 million, discontinued operations of \$3.0 million and \$0.9 million of stock-based compensation expenses, partially offset by a decrease in working capital of \$1.3 million. Working capital consisted primarily of increases in accounts receivable of \$2.5 million, deferred revenue of \$1.7 million, accounts payable of \$1.7 million, offset by a decrease in accrued expenses and other liabilities of \$1.0 million, an increase in prepaid expenses and other assets of \$0.7 million and increase in deferred costs of \$0.6 million.

For the year ended December 31, 2016, cash provided by operating activities from continuing operations was \$16.9 million, which primarily consisted of net income of \$22.4 million, depreciation and amortization of \$6.1 million, \$1.4 million of stock-based compensation expenses, a decrease in working capital of \$5.7 million, discontinued operations of \$3.1 million, and impairment of intangible asset of \$0.7 million, partially offset by \$11.1 million in deferred taxes. Working capital consisted primarily of increases in accounts receivable of \$4.0 million, prepaid expenses of \$0.8 million, deferred costs of \$1.0 million and deferred revenue of \$0.5 million.

For the year ended December 31, 2015, cash provided by operating activities from continuing operations was \$18.7 million due to net loss of \$6.7 million and \$13.7 million of cash provided by discontinued operations, depreciation and amortization of \$7.1 million, \$3.5 million of stock-based compensation expenses, loss on disposal of property and equipment of \$0.4 million, deferred taxes of \$0.3 million and an increase in working capital of \$0.4 million. Working capital consisted of a decrease in deferred costs of \$2.9 million, an increase in accounts payable of \$1.0 million and a decrease in accrued expenses and other liabilities of \$2.5 million, and increases in prepaid expenses of \$0.6 million and accounts receivable of \$0.5 million.

We have an ongoing dispute and litigation with MCI Communications Services, Inc. d/b/a Verizon Business and Verizon Select Services, Inc. (collectively, "Verizon"), which is a carrier access billing ("CABS") customer. Billings to Verizon were approximately \$6.8 million and \$10.4 million for the year ended December 31, 2015 and 2016, respectively, and \$2.9 million and \$4.7 million for the six months ended June 30, 2016 and 2017, respectively. We recognize revenue for this customer only to the extent to which payments have been made and/

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or billings are not disputed. These outstanding amounts represent disputed and unpaid billings and are fully reserved within our allowance for doubtful accounts. We have not recognized revenue related to the outstanding and disputed balances. Only if and when we reach an agreement with Verizon to settle the outstanding and disputed billings which results in a payment for any or all amounts outstanding, will we recognize any revenue. Recognition of revenue as a result of a settlement of disputed balances will result in an increase in cash flows from operating activities for the relevant period.

Cash Flows from Investing Activities

For the six months ended June 30, 2017, cash used in investing activities from continuing operations was \$2.8 million from the purchase of property, plant and equipment and capitalized internally developed software costs.

For the six months ended June 30, 2016, cash used in investing activities from continuing operations was \$3.4 million used to purchase property, plant and equipment and capitalized internally developed software costs.

For the year ended December 31, 2016, cash used in investing activities from continuing operations was \$6.1 million used to purchase property, plant and equipment and capitalized internally developed software costs.

For the year ended December 31, 2015, cash used in investing activities from continuing operations was \$5.1 million used to purchase property, plant and equipment and capitalized internally developed software costs.

Cash Flows from Financing Activities

For the six months ended June 30, 2017, cash used in financing activities from continuing operations was \$3.4 million consisting primarily of net repayments of \$2.5 million on our line of credit and \$1.0 million in payments on our term loan.

For the six months ended June 30, 2016, cash used in financing activities from continuing operations was \$0.7 million consisting primarily of net repayments of \$1.5 million on our line of credit, partially offset by \$0.9 million in proceeds from issuance of common stock.

For the year ended December 31, 2016, cash used in financing activities from continuing operations was \$1.1 million consisting primarily of \$30.0 million in cash distribution to Republic Wireless as part of the Spin-Off, net repayments of \$12.0 million on our line of credit, partially offset by \$40.0 million in borrowings on our term loan and \$1.0 million in proceeds from issuance of common stock.

For the year ended December 31, 2015, cash provided from financing activities from continuing operations was \$11.0 million due to the net \$11.0 million in borrowings under our line of credit.

Debt

On November 4, 2016, we entered into a Credit and Security Agreement with a syndicate of four banks. The agreement includes a \$40 million term loan, and a \$25 million revolving loan, which includes a swing line of up to \$1 million and limits letters of credit commitments to a maximum of \$2.5 million. Substantially all assets of the Company are pledged as security to the Credit and Security Agreement. The term of the Credit and Security Agreement is five years and matures on November 3, 2021. The interest rate used for the debt is based on our election to either apply the Federal Funds Effective Rate or LIBOR plus a stated margin, as defined in the Credit and Security Agreement. This agreement requires us to meet a certain leverage ratio and minimum debt service coverage ratio each quarter on a trailing 12-month basis.

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As of June 30, 2017, the Company has \$39 million outstanding on the term loan and \$2.5 million on the revolving loan and was in compliance with all financial covenants. The availability under the Credit and Security Agreement was \$22.5 million as of June 30, 2017. Beginning on March 31, 2017, the term loan is payable in consecutive equal quarterly payment installments with the balance payable in full on the maturity date.

KeyBanc Capital Markets Inc. and certain of its affiliates are lenders and/or agents under our credit facility, as well as an underwriter in this offering, and, to the extent proceeds from this offering are used to repay amounts outstanding thereunder, will receive a portion of the net proceeds from this offering in connection with the repayment of our credit facility.

Contractual Obligations and Other Commitments

The following table summarizes our non-cancelable contractual obligations as of December 31, 2016:

	<u>Total</u>	<u>Less Than 1 Year</u>	<u>1 to 2 Years</u>	<u>3 to 5 Years</u>	<u>More Than 5 Years</u>
	(In thousands)				
As of December 31, 2016:					
Term loan	\$40,000	\$2,000	\$3,000	\$35,000	\$ —
Interest expense ⁽¹⁾	5,198	1,224	1,148	2,826	—
Operating leases ⁽²⁾	19,933	2,992	3,632	11,417	1,892
Capital leases	165	101	64	—	—
Purchase obligations ⁽³⁾	5,700	1,625	1,675	2,400	—
Total	\$70,996	\$7,942	\$9,519	\$51,643	\$1,892

(1) Interest has been calculated on the term loan based on an interest rate of 3.125% which was the rate in effect as of December 31, 2016. Actual cash flows may differ significantly due to changes in underlying estimates.

(2) Operating leases represent total future minimum rent payments under non-cancellable operating lease agreements.

(3) Purchase obligations represent total future minimum payments under contracts to various service providers. Purchase obligations exclude agreements that are cancellable without penalty.

We lease office space under operating lease agreements in several locations within the United States, including our headquarters, which are located at 900 Main Campus Drive in Raleigh, NC. These operating lease agreements expires on various dates through 2022. These leases contain escalation clauses and various landlord. We recognize the total minimum lease payments on a straight-line basis over the term of the lease. On September 26, 2016, we amended the operating lease agreement for our headquarters with one of our landlords. The sixty-three month lease, began on April 14, 2017 and provided for an additional 40,657 square feet of office space, as well as an extension of the termination date of the lease for approximately 128,200 square feet of office space.

In conjunction with the Spin-Off, we entered into a Facilities Service Agreement with Republic Wireless in which it agrees to sub-lease 40,657 square feet of office space also in Raleigh, NC. The sub-lease is non-cancellable and extends to May 2022. We account for these receipts as a reduction to rent expense, which is included in operating expenses in the consolidated statements of operations. See “Certain Relationships and Related Party Transactions—Transactions with Republic Wireless—Facilities Sharing Agreement.”

Off-Balance Sheet Arrangements

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

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue, costs and expenses during the reported periods. In accordance with GAAP, we base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstance, including the terms of our existing contracts, our evaluation of trends in the industry, information provided by our clients and information available from outside sources as appropriate. Actual results may differ from those estimates under different assumptions or conditions, and to the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected.

While our significant accounting policies are more fully described in Note 2 to our consolidated financial statements on page F-8, we believe the following accounting policies are critical to the process of making significant judgments and estimates in the preparation of our consolidated financial statements.

Revenue Recognition and Deferred Revenue

We generate revenue primarily from the sale of communication services to enterprise customers. We recognize revenue when all of the following criteria are met (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred; (iii) the fee is fixed or determinable; and (iv) collection is reasonably assured. If collection is not reasonably assured, we defer revenue recognition until collectability becomes reasonably assured. Our arrangements do not contain general rights of return. We generally enter into arrangements with customers that are typically 2 to 3 years in length. Incremental direct costs incurred related to the acquisition of a customer contract are expensed as incurred.

Stock-Based Compensation

Stock options awarded to employees, directors and non-employee third parties are measured at fair value on each grant date. Options subject to service-based vesting generally vest annually over a four-year period. The determination of the fair value of stock-based compensation arrangements on the grant date requires judgment. We recognize stock-based compensation expense using the Black-Scholes option-pricing model, net of estimated forfeitures, in order to determine the fair value of stock options, the output of which is affected by a number of variables. These variables include the fair value of our common stock, expected term of the options, expected stock price volatility, risk-free interest rate and expected dividends, which are estimated as follows:

- *Fair value of our common stock.* The fair value of the shares of our common stock underlying stock options has historically been established by our board of directors with the assistance of an independent third-party valuation firm. Because there has been no public market for our common stock, our board of directors has relied on this independent valuation and other factors to establish the fair value of our common stock at the time of grant of the option. The determination of the fair value of our common stock is discussed further below.
- *Expected term.* The expected term was estimated using the simplified method allowed under SEC guidance as we do not have sufficient historical data to use any other method to estimate the expected term.
- *Expected volatility.* The expected volatility is derived from an average of the historical volatilities of the common stock of several entities with characteristics similar to ours, such as the size, and operational and economic similarities to our principle business operations. We use this method because we have limited information on the volatility of our common stock.

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- *Risk-free interest rate.* The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options for each option group.
- *Expected dividends.* The expected dividend is assumed to be zero as we have never paid dividends and have no current plans to pay any dividends on our common stock.

In addition to the assumptions used in the Black-Scholes option-pricing model, we must also determine a forfeiture rate to calculate the stock-based compensation for awards. Through June 30, 2017, we recognized compensation for only the portion of options expected to vest using an estimated forfeiture rate that was derived from historical employee termination behavior.

Determination of the Fair Value of Common Stock

We are a private company with no active public market for our common stock, and therefore we have periodically determined for financial reporting purposes the estimated per share fair value of our common stock at various dates using contemporaneous valuations performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants Practice Aid, "Valuation of Privately-Held Company Equity Securities Issued as Compensation." In conducting the contemporaneous valuations, we considered all objective and subjective factors that we believed to be relevant for each valuation conducted, including the following:

- contemporaneous unrelated third-party valuations of our common stock;
- the rights, preferences and privileges of our redeemable convertible preferred stock relative to those of our common stock;
- our results of operations, financial position and capital resources;
- current business conditions and projections;
- the lack of marketability of our common stock;
- the hiring of key personnel and the experience of our management;
- the introduction of new products;
- the risk inherent in the development and expansion of our products;
- the fact that the option grants involve illiquid securities in a private company;
- the likelihood of achieving a liquidity event, such as an initial public offering or a sale of our company, given the prevailing market conditions;
- industry trends and competitive environment; and
- overall economic indicators, including gross domestic product, employment, inflation and interest rates.

In valuing our common stock, we have historically determined the equity value of our Company using both the income and the market approach valuation methods:

- The income approach estimates value based on the expectation of future cash flows that a company will generate. These future cash flows are discounted to their present values using a discount rate derived from an analysis of the cost of capital of comparable publicly traded companies in our industry as of each valuation date and is adjusted to reflect the risks inherent in our cash flows.
- The market approach estimates value based on a comparison of the subject company to comparable public companies in a similar line of business. From the comparable companies, a representative market value multiple is determined and then applied to the subject. The estimated value for our common stock is then discounted by a non-marketability factor (discount for lack of marketability) due to the fact that stockholders of private companies do not have access to trading markets similar to those enjoyed by stockholders of public companies, which affects liquidity.

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As a result of the recent determination to potentially pursue strategic financing through an IPO, in June 2017, we began using the Probability-Weighted Expected Return Method (“PWERM”) in order to estimate the value of our common stock based on various outcomes. Using the PWERM, the value of our common stock is estimated based upon a probability-weighted analysis of varying values for our common stock assuming possible future events for the company, including an initial public offering and a stay private company scenario in which operations continue as a privately held company. Application of this approach involves the use of estimates, judgment and assumptions that are highly complex and subjective, such as those regarding our expected future revenue, expenses and future cash flows, discount rates, market multiples, the selection of comparable companies and the probability of possible future events. Changes in any or all of these estimates and assumptions or the relationships between those assumptions impact our valuations as of each valuation date and may have a material impact on the valuation of our common stock.

The dates of our contemporaneous valuations have not always coincided with the dates of our stock-based compensation grants. In such instances, management’s estimates have been based on the most recent contemporaneous valuation of our shares of common stock and our assessment of additional objective and subjective factors we believed were relevant as of the grant date. The additional factors considered when determining any changes in fair value between the most recent contemporaneous valuation and the grant dates included our stage of development, our operating and financial performance, current business conditions and the market performance of comparable publicly traded companies. Following this offering, we will rely on the closing price of our common stock traded in the public market on the date of grant to determine the fair value of our common stock.

Goodwill and Intangible Assets

Goodwill

Goodwill represents the excess of the aggregate fair value of consideration transferred in a business combination, over the fair value of assets acquired, net of liabilities assumed. Goodwill is not amortized, but is subject to an annual impairment test. We test goodwill for impairment annually on December 31 of each calendar year or more frequently if events or changes in business circumstances indicate the asset might be impaired. Goodwill is tested for impairment at the reporting unit level. In evaluating the recoverability of goodwill, we perform a qualitative analysis to determine whether events and circumstances exist that indicate that it is more likely than not that goodwill is impaired. The qualitative factors we consider include but are not limited to, macroeconomic conditions, industry and market conditions, company-specific events and changes in circumstances. We completed our annual goodwill impairment analysis in each of the years ended December 31, 2015 and 2016 and no impairment charges were recorded. As of June 30, 2017 goodwill was \$6.9 million.

Long-Lived Assets

Long-lived assets, including intangible assets with definite lives, are amortized over their estimated useful lives and are reviewed for impairment if indicators of impairment arise.

We evaluate the recoverability of our long-lived assets for impairment whenever events or circumstances indicate that the carrying amount of the assets may not be recoverable. Recoverability of long-lived assets are measured by comparison of the carrying amount of the asset to the future undiscounted cash flows the asset is expected to generate. If the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired asset. As of June 30, 2017, intangible assets, net of accumulated amortization, were \$8.1 million, which consists primarily of client relationships and client contracts. As part of our annual evaluation of intangibles, we re-evaluated our marketing and trade name assets and concluded that there was no further benefit to a trade name acquired in the Dash acquisition. As a result, we impaired the intangible asset and recognized a loss of \$695. No indicators of impairment were identified for the year ended December 31, 2015 or the six months ended June 30, 2017.

Internal-Use Software Development Costs

We capitalize qualifying internal-use software development costs that are incurred during the application development stage. Capitalization of costs begins when two criteria are met: (i) the preliminary project stage is completed and (ii) it is probable that the software will be completed and used for its intended function. Capitalization ceases when the software is substantially complete and ready for its intended use, including the completion of all significant testing. We also capitalize costs related to specific upgrades and enhancements when it is probable the expenditures will result in additional functionality and expense costs incurred for maintenance and minor upgrades and enhancements. Costs related to preliminary project activities and post-implementation operating activities are 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, which is recorded in cost of revenue in the statement of operations. We evaluate the useful life of these assets on an annual basis and test for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets.

Income Taxes

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

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

We account for uncertain tax positions by recognizing the financial statement effects of a tax position only when, based upon technical merits, it is more likely than not that the position will be sustained upon examination. The tax benefit recognized is measured as the largest amount of benefit determined on a cumulative probability basis that we believe is more likely than not to be realized upon ultimate settlement of the position. We recognize potential accrued interest and penalties associated with unrecognized tax positions in income tax expense.

Other Contingencies

We are subject to legal proceedings and litigation arising in the ordinary course of business. Periodically, we evaluate the status of each legal matter and assess our potential financial exposure. If the potential loss from any legal proceeding or litigation is considered probable and the amount can be reasonably estimated, we accrue a liability for the estimated loss. Significant judgment is required to determine the probability of a loss and whether the amount of the loss is reasonably estimable. The outcome of any proceeding is not determinable in advance. As a result, the assessment of a potential liability and the amount of any accruals recorded are based only on the information available to us at the time. As additional information becomes available, we reassess the potential liability related to the legal proceeding or litigation, and may revise our estimates. Any revisions could have a material effect on our results of operations.

We conduct operations in many tax jurisdictions throughout the United States. In many of these jurisdictions, non-income-based taxes and fees, such as sales and use taxes, telecommunications taxes, and regulatory fees including those associated with (or potentially associated with) VoIP telephony services or 911

services, are assessed or may be assessed on our operations. We are subject to indirect taxes, and may be subject to certain other taxes and surcharges in some of these jurisdictions. We generally bill and collect from our customers these taxes and surcharges. We record a liability for tax collected from customers but not yet paid to the appropriate jurisdiction. In addition, we record a provision for non-income based taxes and fees in jurisdictions where it is both probable that liability has been incurred and the amount of the exposure can be reasonably estimated. As a result, we have recorded a liability of \$4.6 million and \$2.8 million and \$2.6 million as of December 31, 2015 and 2016 and for the six months ended June 30, 2017, respectively. These estimates are based on several key assumptions, including the taxability of our services, the jurisdictions in which we believe we have nexus and the sourcing of revenue to those jurisdictions. In the event these jurisdictions challenge our assumptions and analysis, our actual exposure could differ materially from our current estimates.

Recent Accounting Pronouncements

Recently Adopted

In March 2016, the Financial Accounting Standards Board (“FASB”) issued ASU 2016-09, *Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. The effective date of ASU 2016-09 for public business entities is for fiscal years beginning after December 15, 2016. Early adoption is permitted and the Company adopted the amendments in ASU 2016-09 effective January 1, 2016. This standard simplifies several aspects of the accounting for equity-based payment awards, including the income tax consequences and classification on the statement of cash flows. Certain changes implemented by this standard are required to be applied retrospectively, while other changes are required to be applied prospectively. The Company elected to continue to estimate forfeitures when recording stock-based compensation expense.

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes (Topic 740)*, which requires that all deferred tax assets and liabilities, including any related valuation allowance, be classified as noncurrent on the balance sheet. ASU 2015-17 is effective for fiscal years beginning after December 15, 2016 for public entities, and early adoption is permitted. We elected to early adopt ASU 2015-17 beginning with our year ended December 31, 2015.

Not Yet Adopted

In May 2017, the FASB issued ASU 2017-09, *Scope of Modification Accounting*, which amends the scope of modification accounting for share-based payment arrangements. ASU 2017-09 provides guidance on the types of changes to terms or conditions of share-based payment awards to which an entity would be required to apply modification accounting under ASC 718, *Compensation—Stock Compensation*. ASU 2017-09 is effective for fiscal years and interim periods within those years beginning after December 15, 2017, and early adoption is permitted. We are evaluating the impact of this guidance on our consolidated financial statements and related disclosures.

In February 2016, the FASB issued ASU 2016-02, *Leases*. The standard will affect all entities that lease assets and will require lessees to recognize a lease liability and a right-of-use asset for all leases (except for short-term leases that have a duration of less than one year) as of the date on which the lessor makes the underlying asset available to the lessee. For lessors, accounting for leases is substantially the same as in prior periods. ASU 2016-02 is effective for fiscal years beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020, and early adoption is permitted. For leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, lessees and lessors must apply a modified retrospective transition approach. While we expect the adoption of this standard to result in an increase to the reported assets and liabilities, we have not yet determined the full impact that the adoption of this standard will have on our financial statements and related disclosures.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers*. This new guidance will replace most existing GAAP guidance on this topic. The new revenue recognition standard

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provides a unified model to determine when and how revenue is recognized. The core principle is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration for which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU 2015-14 “*Revenue from Contracts with Customers: Deferral of the effective date*”, which deferred by one year the effective date for the new revenue reporting standard for entities reporting under GAAP. In accordance with the deferral, this guidance will be effective for us beginning January 1, 2019. This guidance can be applied either retrospectively to each period presented or as a cumulative effect adjustment as of the date of adoption. Early adoption is permitted beginning on January 1, 2017. In December 2016, the FASB issued ASU 2016-20, “*Revenue from Contracts with Customers, Technical Corrections and Improvements to Topic 606*,” which made 12 additional technical corrections and improvements to the new revenue standard. In March 2016, the FASB issued ASU 2016-08, “*Revenue from Contracts with Customers, Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*” clarifying the implementation guidance on principal versus agent considerations. Specifically, an entity is required to determine whether the nature of a promise is to provide the specified good or service itself (that is, the entity is a principal) or to arrange for the good or service to be provided to the customer by the other party (that is, the entity is an agent). The determination influences the timing and amount of revenue recognition. In April 2016, the FASB issued ASU 2016-10, “*Revenue from Contracts with Customers, Identifying Performance Obligations and Licensing*”, clarifying the implementation guidance on identifying performance obligations and licensing. Specifically, the amendments reduce the cost and complexity of identifying promised goods or services and improve the guidance for determining whether promises are separately identifiable. The amendments also provide implementation guidance on accounting for an entity’s promise to grant a license. In May 2016, the FASB issued ASU 2016-12, “*Revenue from Contracts with Customers, Narrow-Scope Improvements and Practical Expedients*,” clarifying guidance on assessing collectability, presentation of sales taxes, noncash consideration, completed contracts and contract modifications. The effective date and transition requirements for ASU 2016-20, ASU 2016-08 and ASU 2016-10 are the same as the effective date and transition requirements for ASU 2014-09, which will be effective for us beginning January 1, 2019.

We are still assessing all potential impacts of the new standard on our consolidated financial statements. Given the comprehensive nature of the standard, we have already taken steps to identify the impact on our consolidated financial results. We have completed a diagnostic which highlighted differences between current accounting policies and the new standard. Additionally, we have engaged a third-party service provider to assist in our evaluation of customer contracts to identify the attributes that could result in a different accounting treatment under ASU 2014-09. From an information technology perspective, we have identified the business requirements and required functionality of a new technology solution and are in the process of meeting with third-party software providers to determine which technology to implement. We have not yet reached a conclusion as to whether the quantitative effect of the adoption of the new standard on our revenue will be material. We will continue to monitor and assess the impact of the changes of the new standard and the related interpretations of its application as they become available.

JOBS Act Accounting Election

We are an emerging growth company, as defined in the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

Quantitative and Qualitative Disclosures about Market Risk

We are exposed to certain market risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily the result of fluctuations in interest rates and, to a lesser extent, foreign currency exchange rates and inflation:

Interest Rate Risk

Our primary exposure to market risk relates to interest rate changes. We had cash and cash equivalents totaling \$5.7 million as of June 30, 2017, which were held for working capital purposes. Our cash and cash equivalents are comprised primarily of interest bearing checking accounts.

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.

We had debt totaling \$41.5 million as of June 30, 2017. Our debt is comprised of \$2.5 million outstanding under our revolving line of credit account and \$39 million outstanding under our term loan. The revolving line of credit had an interest rate based on the 1-month LIBOR rate plus 225 basis points as of June 30, 2017. The term loan had an interest rate based on the 3-month LIBOR rate plus 225 basis points. A one-eighth percentage point increase or decrease in the applicable rate for our credit facility (assuming the revolving portion of the credit facility is fully drawn) would have an annual impact of \$0.1 million on cash interest expense.

Foreign Currency Risk

Our customers consume our services primarily in the United States. Our revenue and expenses are denominated in U.S. dollars and as a result we have no foreign currency risk.

Inflation

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. We continue to monitor the impact of inflation in order to minimize its effects through pricing strategies, productivity improvements and cost reductions. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

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Reconciliation of Non-GAAP Financial Measures

Reconciliations of the above mentioned non-GAAP financial measures to the most directly comparable GAAP financial measures are presented in the tables below (in thousands):

Adjusted EBITDA

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Income from continuing operations	\$ 6,965	\$ 25,430	\$ 7,572	\$ 4,936
Income tax provision (benefit) ⁽¹⁾	408	(11,094)	269	2,987
Interest expense, net	589	908	369	859
Depreciation	6,167	5,251	2,775	2,401
Amortization	908	891	446	420
Stock-based compensation	3,493	1,370	854	490
Impairment of intangible assets ⁽²⁾	—	695	—	—
Loss (gain) on disposal of property and equipment	382	19	(16)	9
Change in fair value of shareholders' anti-dilutive arrangement ⁽³⁾	—	—	—	553
Adjusted EBITDA	<u>\$18,912</u>	<u>\$ 23,470</u>	<u>\$12,269</u>	<u>\$12,655</u>

(1) Income tax benefit was \$11,094 for the year ended December 31, 2016. This benefit was primarily the result of \$14,138 of benefit being recognized due to the release of the deferred tax asset valuation allowance subsequent to the Spin-Off.

(2) The impairment of intangible assets was \$695 for the year ended December 31, 2016 and was due to the Company's evaluation that a trade name acquired during the Dash acquisition provided no further benefit.

(3) Change in fair value of shareholders' anti-dilutive arrangement was \$553 for the six months ended June 30, 2017 and relates to an antidilutive agreement which allows certain principal non-founder shareholders the ability to purchase additional shares of common stock. See Note 2, *Summary of Significant Accounting Policies, Fair Value of Financial Instruments*, for further explanation.

	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Net (loss) income	\$ (6,700)	\$ 22,358	\$ 4,561	\$ 4,936
Stock-based compensation	3,493	1,370	854	490
Change in fair value of stockholders' anti-dilutive arrangement ⁽¹⁾	—	—	—	553
Amortization of acquired intangibles	520	520	260	260
Impairment of intangible assets ⁽²⁾	—	695	—	—
Loss (gain) on disposal of property and equipment	382	19	(16)	9
Estimated tax effects of adjustments ⁽³⁾	—	(994)	—	(501)
Adjusted net (loss) income	<u>\$(2,305)</u>	<u>\$23,968</u>	<u>\$5,659</u>	<u>\$5,747</u>

(1) Change in fair value of shareholders' anti-dilutive arrangement was \$553 for the six months ended June 30, 2017 and relates to an anti-dilutive agreement which allows certain principal non-founder shareholders the ability to purchase additional shares of common stock. See Note 2, *Summary of Significant Accounting Policies, Fair Value of Financial Instruments*, for further explanation.

(2) The impairment of intangible assets was \$695 for the year ended December 31, 2016 and was due to the Company's evaluation that a trade name acquired during the Dash acquisition provided no further benefit.

(3) The Company recorded a full valuation allowance on its net deferred tax assets as of December 31, 2015 and June 30, 2016. The income tax expense recorded in the Company's consolidated statement of operations for the aforementioned periods relates to the change in deferred tax liability for indefinite lived intangibles and various state minimum taxes. The non-GAAP adjustments would not be impacted by these tax expenses and as a result, no tax effect has been recorded for the year ended December 31, 2015 and the six months ended June 30, 2016. The valuation allowance was released in the fourth quarter of 2016 in connection with the spin-off of Republic Wireless. For periods following the valuation

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allowance release, including the year ended December 31, 2016 and the six months ended June 30, 2017, the Company has calculated the income tax effect of the non-GAAP adjustments using the blended U.S. federal and state statutory rate of approximately 38.2%.

Adjusted Gross Profit and Adjusted Gross Margin

<i>Consolidated</i>	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Gross profit	\$58,559	\$66,917	\$32,107	\$35,291
Depreciation	5,258	4,574	2,359	2,083
Stock-based compensation	45	61	28	41
Adjusted gross profit	<u>\$63,862</u>	<u>\$71,552</u>	<u>\$34,494</u>	<u>\$37,415</u>
Adjusted gross margin	<u>46%</u>	<u>47%</u>	<u>46%</u>	<u>47%</u>

By Segment

<u>CPaaS</u>	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Gross profit	\$36,742	\$45,860	\$21,272	\$26,047
Depreciation	5,258	4,574	2,359	2,083
Stock-based compensation	45	61	28	41
Adjusted gross profit	<u>\$42,045</u>	<u>\$50,495</u>	<u>\$23,659</u>	<u>\$28,171</u>
Adjusted gross margin	<u>41%</u>	<u>43%</u>	<u>42%</u>	<u>45%</u>

Other

There are no non-GAAP adjustments to gross profit for the Other segment.

Free Cash Flow	Year ended December 31,		Six months ended June 30,	
	2015	2016	2016	2017
	(In thousands)			
Net cash provided by operating activities from continuing operations	\$18,651	\$16,942	\$10,553	\$ 5,080
Net cash used in investing activities from continuing operations ⁽¹⁾	(5,102)	(6,061)	(3,368)	(2,795)
Free cash flow	<u>\$13,549</u>	<u>\$10,881</u>	<u>\$ 7,185</u>	<u>\$ 2,285</u>

(1) Represents the acquisition cost of property, equipment and capitalized development costs for software for internal use.

LETTER FROM THE COFOUNDER

Dear Investors,

Thank you for considering investing in Bandwidth. My name is David Morken and I'm the Cofounder, Chairman and CEO of our 338-person software company based near Research Triangle Park in Raleigh, North Carolina.

As of June 30, 2017 we served 865 active CPaaS customer accounts that use our software platform and network to add voice calls, text messages and 911 services to their applications and devices. These creative teams spend an average of more than \$150,000 each year with us. We love working with them and the feeling seems mutual—once they find us (which hasn't always been easy) they almost never leave. You might use Bandwidth today if you use Google Voice, Microsoft Office 365 Skype for Business, Ring Central or smartphone apps like Pinger, GrubHub and ZipRecruiter.

So why raise capital now? We believe we are entering a golden age of communications heralded by the rise of massive and accessible computing power and intelligent devices. We are honored to serve many of the leading companies who are ushering in this grand, new era. Our software, network and amazing team give companies like Google, Microsoft and others the powerful tools they need to deliver the highest quality voice, messaging and emergency services for any application, website or device. Simply put, we develop and deliver the power to communicate.

As we look forward, we believe the dramatic rise of voice as an interface for everything from search, to music, to calling smartphones will drive more demand for our services in the future than ever before. Amazon's Alexa, Google Assistant, Apple's Siri, Microsoft's Cortana, and Facebook M are all examples of voice as an interface, the first new user interface since the mouse and touchscreen. And if the past is prologue, we are well-positioned to succeed in the future.

Over the last 12 months we've reached several major milestones. We've grown our platform and network to support 52 million active phone numbers, 27 billion minutes of calls, 10 billion text messages and 8 million 911-enabled phone numbers.

These milestones are consistent with our progress over the last 18 remarkable years. We've been fortunate to grow during economic highs and lows. Founded in 1999, we survived the tech bubble and by 2007 were ranked as the 4th Fastest Growing Privately Held Company from 2002 to 2007 by the Inc. 500. In 2008, we built one of the fastest growing all-IP voice networks and in 2010 were among the first to offer cloud-based business voice.

In 2011, we launched Republic Wireless, a nationwide cellular smartphone service that pioneered calling and texting over Wi-Fi. We signed up over 100,000 people for service in our first week and grew Republic Wireless annual revenue to \$90 million dollars in five years before spinning it out as a separate company last year.

We have historically focused on growing profitably. When deploying capital, we follow the courage of our convictions but are impatient for profits. We have grown the business primarily out of profits and have raised a total of only \$33.5 million of equity capital. For our early funding we relied on cofounders, friends and family. Since then, we funded one acquisition but fueled our organic growth with free cash flows.

How we work together is important to our success in the future. We define our culture with three Ps—Purpose, People and Principles. Our purpose is to accomplish our mission and it is our top priority. Second are our people, who are essential to accomplishing our mission. As a result, we invest heavily and happily in our people. We do this through our Whole Person framework: programs and policies designed to strengthen our

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body, mind and spirit. At the very heart of our company culture is our desire to grow from strength to strength through every season. Our third P stands for our principles. We are committed to strong principles which we define and share across the entire company. More importantly, we live by them.

As you consider investing with us, please allow me to thank those who have been most responsible for our success. To our many customers and our investors, thank you! To our team, you are the best—everyone should have the opportunity to work with a group of people as talented, fun, disciplined and committed to each other and to serving customers as you are. Henry Kaestner is the greatest friend and cofounder anyone could pray for, which is exactly what I did the day before we met. We would both like to thank our amazing brides, children and parents for always supporting our business. And as we have always done, Henry and I give God the glory for our work together. We know it is only because of his providence, our team's perspiration, and our customers' success that we can invite you to invest in Bandwidth.

Thank you,

David Morken
Cofounder, Chairman, and CEO

BUSINESS

Overview

We are a leading cloud-based communications platform for enterprises in the United States. Our solutions include a broad range of software APIs for voice and text functionality and our owned and managed, purpose-built IP voice network, one of the largest in the nation. Our sophisticated and easy-to-use software APIs allow enterprises to enhance their products and services by incorporating advanced voice and text capabilities. Companies use our platform to more frequently and seamlessly connect with their end users, add voice calling capabilities to residential IoT devices, offer end users new mobile application experiences and improve employee productivity, among other use cases. By owning and operating a capital-efficient, purpose-built IP voice network, we are able to offer advanced monitoring, reporting and analytics, superior customer service, dedicated operating teams, personalized support, and flexible cost structures. Over the last ten years, we have pioneered the CPaaS space through our innovation-rich culture and focus on empowering enterprises with end-to-end communications solutions.

As technologies evolve and new mobile applications and connected devices proliferate, enterprises must adapt and innovate their communications solutions to create a “connected” experience anywhere, anytime, on any device. Enterprises looking to capitalize on trends such as voice as an interface and A2P messaging need solutions that are reliable, secure, scalable and cost-efficient. Most software-powered communications providers rely heavily on leased networks and cannot provide enterprise-grade service and support. We believe traditional large-scale network providers lack the capabilities to build robust software platforms for agile development of communications solutions. Enterprises focus on their core businesses and lack the technical know-how or strategic flexibility to build the customized solutions they require in-house. As a result, enterprises need a third-party, end-to-end, cloud-based software solution that eliminates the complexity and expense of building and maintaining their own communications platform.

Our solutions address enterprises’ communications needs, and we believe they are shaping the future of how enterprises connect through embedded voice and text for applications and devices. At the core of our solutions are our communications software APIs, which allow companies to build products and services on top of our cloud-based, out-of-the-box software. Our software APIs include pre-defined functions that are easily customizable for specific use cases without the challenge and expense of building and deploying complex code. Moreover, our platform collects and analyzes terabytes of call and messaging data records in real-time and provide a seamless integration to CRM and Business Intelligence analytics tools to provide meaningful data driven actionable insights for critical business decisions. Customers can then launch and scale applications and solutions with reliability using our own nationwide IP voice network. Our voice software APIs allow enterprises to make and receive phone calls and create advanced voice experiences. Integration with our purpose-built IP voice network ensures enterprise-grade functionality and secure, high-quality connections. Our messaging software APIs provide enterprises with advanced tools to connect with end users via messaging. Our customers also use our solutions to enable 911 response capabilities, real-time provisioning and activation of phone numbers, and toll-free number messaging.

We are the only CPaaS provider in the industry with our own nationwide IP voice network, which we have purpose-built for our platform. Our network is capital-efficient and custom-built to support the applications and experiences that make a difference in the way enterprises communicate. Since a communications platform is only as strong as the network that backs it, we believe our network provides a significant competitive advantage in the control, quality, pricing power and scalability of our offering. We are able to control the quality and provide the support our customers expect, as well as efficiently meet scalability and cost requirements.

Our customers currently include only enterprises, which includes large enterprises, small and medium-sized businesses, emerging technology companies and any other business. Our customers operate in a diverse set of industries, including technology, communications, hospitality and services, that need to launch and scale robust

communications experiences. Our customers choose Bandwidth because we empower them to embed seamless communications within their products and services in a reliable, flexible, scalable and cost-efficient manner. Our customers include Google Voice, Microsoft Office 365 Skype for Business, Dialpad, GoDaddy, Kipsu, Rover and ZipRecruiter, among many others. We do not currently have any consumer or residential customers, although our enterprise customers may utilize our solutions to serve their own consumer or residential customers or end users.

Our usage-based revenue model allows us to grow with our customers and increase our revenue base as our customers deepen their usage of our solutions. Our CPaaS customers increased use of our platform from no minutes or messages in 2008 to 27 billion minutes and 10 billion messages in the twelve months ended June 30, 2017. Our dollar-based net retention rate, which measures our customers' increased utilization of our platform, was 115%, 111% and 107% for the year ended December 31, 2015 and 2016 and the six months ended June 30, 2017, respectively.

We have continued growing our business in recent periods. For the years ended December 31, 2015 and 2016 and the six months ended June 30, 2017, our revenue was \$137.8 million, \$152.1 million and \$79.2 million, respectively, and our net (loss) income was \$(6.7) million, \$22.4 million and \$4.9 million, respectively.

Industry Background

Communications are the Heartbeat of How Enterprises Operate, Drive Growth and Innovate

Communications have reached a tipping point as enterprises are embedding mission-critical communications functions in their products and services. With the unprecedented growth of mobile technologies and connected devices that comprise the IoT, enterprises compete to provide real-time value to their customers across a myriad of devices. Enterprises seeking to effectively operate, drive growth and innovate must navigate the convergence of software-powered communications and the proliferation of mobile applications and smart devices that create a "connected" experience. For instance, providing enterprise customer support with automated real-time text-based messaging is the "new normal". Enterprises such as Rover and ZipRecruiter provide a stream of real-time updates to their end users, and Ovum estimates 181 billion messages will be sent A2P in 2017 in the United States.

Additionally, voice-first user interfaces built on AI technology are becoming a natural extension of existing voice-enabled devices such as mobile phones. According to comScore, as of Q2 2017, one in two smartphone users in the United States uses voice technology on their smartphones. Of those smartphone users, 49% use it weekly and 34% use it daily. Additionally, as of March 2017, smart speakers, such as Amazon Echo or Google Home, were in 8% of connected homes in the United States. According to Gartner, by 2018, more than 2 billion people will use conversational AI to interact with VPAs, virtual customer assistants and other AI-enabled smartphones and connected devices on a regular basis. By 2019, all languages spoken in the major VPA speaker markets will be supported, increasing adoption by 25%. By 2020, more than 50% of cloud interactions in homes with VPA speakers will be conversational. Additionally, according to Gartner, enterprise use cases will start in several vertical industries over the next two to three years.

Software, in the form of APIs, plays a critical role in laying the foundation of communications across core business disciplines, from product development to customer support. The reliability, security and scalability of software-powered communications are vital for enterprise success.

Enterprises Today Operate in Real-Time with Distributed Architectures

Successful enterprises today are focused on innovating their core product offerings and building a strategic advantage to reach and empower their customers. Enterprises are adopting a distributed approach in deploying cloud-based third-party software solutions. As a result, rapidly proliferating mobile technologies, big data and

cloud-based software services have transformed how these enterprises can run their businesses. Additionally, organizations can customize their offerings to customers by building on top of cloud-based, out-of-the-box software APIs. Third-party, cloud-based solutions eliminate the complexity and cost of building and maintaining their own communications solution. Enterprises are empowered by software APIs, which include pre-defined functions that are easily customizable for specific use cases without the challenge and expense of building and deploying complex code.

Communications Solutions are Still a Challenge for Enterprises

Large enterprises and small and medium-sized businesses struggle to build, deploy and manage their own software-powered communications platforms. As communications have grown more sophisticated and complex, software-based APIs have become the backbone for core communications functions such as provisioning and porting phone numbers, A2P voice and messaging services, and 911 services at scale. Enterprises focus on their core businesses and lack the technical know-how or strategic flexibility to build, customize and scale these software APIs from the ground up.

Enterprises seeking to embed end-to-end communications solutions can turn to other software-powered communications providers or traditional large-scale network providers. Neither fully addresses the complex needs of the enterprise.

Software-powered communications providers that rely heavily on third-party networks act as “middlemen” between the enterprise and third-party network providers and cannot fulfill critical communications requirements, such as full service-level agreements, guaranteed levels of uptime and reliability and real-time visibility into network performance. Moreover, the lack of network ownership often makes them less cost-competitive and vulnerable to third-party price increases. Additionally, such software-powered communications providers address fewer use cases and do not provide a comprehensive, cloud-based end-to-end communications suite, including voice, text, 911 and phone number provisioning.

Similarly, traditional large-scale network providers have not evolved with today’s enterprises in mind. They have heavily invested in infrastructure and hardware, but have failed to adapt to a software-first world. We believe these incumbents lack the capabilities to build robust software platforms for agile development of communications solutions. As a result, they are unable to offer their enterprise customers scalable software-based voice and text experiences in those enterprise customers’ applications and devices.

Enterprises require the versatility of a cloud-based software platform coupled with the reliability of a network provider to address their end-to-end communications requirements.

Our Market Opportunity

To establish and maintain their competitive advantage, enterprises need to be able to leverage cloud-based software that enables superior communications products and experiences. Software is redefining communications, and CPaaS solutions are becoming critical to business communications. CPaaS allows enterprises to leverage the latest software-based tools without significant investments in their own communications solution or the need to maintain relationships with large-scale network providers. These solutions enable enterprises to embed voice, chat or messaging services within their business or consumer applications and, we believe, are the foundation for next-generation communications.

The CPaaS market is large and rapidly growing. According to IDC, the global CPaaS market will be \$8.2 billion in 2021. We focus on the CPaaS market in the United States, which comprises the majority of the market opportunity in the near term. Ovum estimates that there will be 348 billion minutes of over-the-top VoIP calls in the United States in 2017 and 742 billion in 2021. Ovum also estimates that 181 billion A2P messages will be sent in the United States in 2017 and 179 billion in 2021. Assuming our current market pricing, we estimate our

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addressable market of minutes of over-the-top VoIP calls and messages to be \$3.3 billion for those services in 2017 and \$6.2 billion in 2021, a compound annual growth rate of 17%. Market growth will be driven by enterprise demand for cloud applications and the need to integrate communications services into any workflow, customer-facing application or business process.

In addition to addressing the API-driven CPaaS market, we are also disrupting network-centric telecom incumbents, which, according to IDC, together generated \$1.4 trillion of revenue in 2016. Software-powered communications are displacing network-centric telecom incumbents by enabling more phone calls and messages to be generated and received within applications, and by provisioning numbers through IP voice networks.

Furthermore, we believe the rapid evolution of technologies, which is delivering new and innovative messaging and voice solutions, will bolster the need for our software-powered communications platform in a variety of new use cases:

- **Rise of Voice as an Interface.** We believe that the shift from a text-driven interface to an increasingly voice-driven interface will further expand our total addressable market. VPAs such as Amazon's Alexa, Google's Assistant, Microsoft's Cortana, Apple's Siri and Facebook's M are examples of the first widely adopted user interface since the keyboard, mouse and touchscreen. We believe this new interface will further drive our growth as users increasingly rely on voice to communicate, including calling, messaging or using 911 services.
- **Integration of Voice Within Applications.** Over the last decade, voice calling has migrated away from single-purpose devices such as a desk phone or a smartphone to a fully integrated solution within enterprise applications such as Google Suites, Microsoft Office 365, Facebook Workplace and Slack. Enterprise users communicate and collaborate using these applications, which use software-powered communications platforms such as our Bandwidth Communications Platform to carry out the calling and messaging functionalities.

Our Platform

Our Bandwidth Communications Platform empowers enterprises to create and scale voice or text communications services across any application and device. Our software platform and IP voice network enable our enterprise customers to rapidly develop and deploy real-time and mission-critical, software-powered communications solutions. Our sophisticated and easy-to-use software APIs allow enterprises to enhance their products and services by incorporating advanced voice and text capabilities. By owning and operating a capital-efficient, purpose-built IP voice network, we are able to offer advanced monitoring, reporting and analytics, superior customer service, dedicated operating teams, personalized support and flexible cost structures.

Our cloud-based platform is a proprietary CPaaS offering consisting of voice and messaging solutions:

Voice Software API. We provide flexible software APIs that are used to build voice calling within applications, innovative call flows between users or machines, call recording, text-to-speech for interactive voice response, call detail records, conference calling or bridging and more. We provide the ability to have customized high-quality call routing for business voice use cases and global reach. Our voice quality monitoring service provides tools and processes for network quality tests and proactive tuning. While we provide a wide range of functionalities, some of the common use cases are:

- **Enabling local and toll-free numbers via software API:** Our platform empowers enterprises with a capability to activate and manage phone numbers instantly and at scale. On our network, we have provisioned approximately 52 million active U.S. numbers, including 3 million toll-free numbers. Using our easy to use software APIs, our enterprise customers can easily add additional lines to their business as well as for their end users.
- **Automating voice communication while preserving privacy:** Our software APIs enable voice communication capabilities from a mobile application to an individual or a group with or without disclosing personal identity

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- **Embedding ‘click-to-call’ communication feature:** We enhance our enterprise customers mobile and web marketing capabilities by embedding click-to-call functionality in their customer outreach, including advertising campaigns that enables them to connect with consumers instantly
- **Real-time call analytics:** We provide our enterprise customers with real-time call analytics through our dashboard that correlates the raw data from calls with CRM records, including the call duration, customer sentiment and other attributes, in order to provide meaningful contextual sales and other business insights

Messaging API. Our software APIs for messaging deliver a complete wireless experience, including: delivery receipts, SMS, MMS, long text support, emoji support and bi-directional unicode (international characters) and short codes interoperability. While we provide a wide range of functionalities, some of the common use cases are:

- **Automated real-time notification and alerts:** Our software APIs empower our enterprise customers with predefined functionalities to send and receive text messages to and from an application to an individual or a group. Our customers often build more customized use cases on top of our predefined use cases. For instance, ZipRecruiter uses this functionality to update job seekers of available jobs in real time via automated text alerts
- **Two-factor authentication:** We enable enterprises to verify the identity and maintain security of end users through our software-based SMS verification service that sends unique codes to end users in order to log in to mobile and web applications
- **Group messaging:** Enterprises utilize our platform to collaborate with their end users on a real-time basis by enabling group messaging within their user community to share messages, videos, carry out polls and surveys amongst other uses without leaving the application

911 Software API. We are the only software platform that provides complete communications solutions with integrated 911 services. We can instantly connect numbers or applications to emergency services with reliable and accurate emergency routing. Our Dynamic Geospatial Routing uses geocoding to enable real-time routing based on X,Y coordinates of the caller and defined Public Safety Access Point boundaries. Our Advanced “Next Generation 911” “i3”-ready NENA i2 “Enhanced” service network covers approximately 98% of the U.S.

Key Benefits of Our Software Platform

Our Bandwidth Communications Platform provides the following benefits to the enterprises we serve:

- **Easy to Build and Deploy.** Our easy-to-use, intuitive software APIs are ready to launch and scale from day one. We enable enterprises to rapidly and easily scale communications functionalities to a vast range of applications and devices. Our technology requires minimal lines of code to build customized applications, which allows for rapid composition of customized solutions and seamless embedding within other applications.
- **Easy to Scale.** We enable enterprises to easily scale nationwide at launch, without sacrificing quality, while meeting the most stringent requirements. We can deliver full end-to-end automation for even the largest of enterprises using our IP voice network, which is the largest of any CPaaS provider based on the number of rate centers, a measure for the footprint covered by our IP voice network. We are able to support high user volumes without impacting deliverability. Our software, built on our own IP voice network, removes complexity, eliminates performance degradation and increases cost efficiencies at scale.
- **Flexibility.** Our software APIs are easy to deploy and use and allow for the creation of solutions to address a broad array of use cases. Our software can be implemented directly into product workflow for a variety of custom solutions such as creation of virtual call centers, group messaging and dynamic call location routing. We enable developers to easily and rapidly innovate with our platform.

Key Benefits of Our Network

Our owned and managed IP voice network provides the following benefits to the enterprises we serve:

- *Enhanced Quality and Reliability.* We offer greater levels of quality and delivery assurance than providers offering services across the public Internet or through partnerships. As a result, the enterprises we serve have enjoyed 99.9% network uptime since January 1, 2017 and we have not experienced any material system failures in the past three years.
- *Total Accountability.* The ability to vertically integrate our software platform with our own IP voice network provides us with a differentiated ability to continuously monitor, report and resolve any software- or network-related issues on a real-time basis. For our enterprise customers, having a single platform solution for their entire communications requirements, including software and network, provides tremendous value with respect to time and financial resources. Our service-level agreements with our enterprise customers assures that we provide high quality service and gives them peace of mind and confidence in our service.
- *Lower Total Cost to Our Customers.* The differentiated pairing of our software combined with owning the delivery capability through our IP voice network leads to significant savings for the enterprises we serve as compared to our competitors. Our IP voice network lowers total cost to our customers as compared to our competitors because of our reduced capital expenditure requirements and lower marginal costs at scale, which we are able to pass on to our customers.
- *Scale.* At peak times, over 200,000 concurrent calls traverse our network. We have grown from zero phone numbers used by end users in 2008 to approximately 52 million active numbers nationwide today, representing 7.7% of the total according to the North American Number Plan Administration. Our IP voice network supported approximately 27 billion minutes and 10 billion text messages in the twelve months ended June 30, 2017 and served approximately 8 million 911-enabled phone numbers, as of June 30, 2017.

Our Competitive Strengths

In our 18 years of business, we have prided ourselves on maintaining a start-up culture and our focus on continuous innovation. We have innovated on our CPaaS offerings to empower our enterprise customers with the most comprehensive software-powered communications platform that integrates seamlessly with one of the largest IP voice networks in the U.S. that we have built and operate. Our innovation-rich culture, customer-centric solutions and track record of successful execution provide us with the following competitive strengths:

- *Highly Scalable Platform Built for the Enterprise.* We built our Bandwidth Communications Platform from the ground up as an enterprise-grade cloud application. As a result, our deployment is fast, our software APIs are flexible and easy-to-use, and we enable enterprises to launch and scale on day one. Our software APIs allow the enterprise customers we serve to grow with flexibility and seamlessly embed communications in their applications or devices. Our scalable platform allows us to serve large-scale Internet companies and cloud service providers.
- *Broadest, Most Complete Solutions in the Industry.* We provide enterprises the broadest, most complete communications services solutions in the industry through our integrated software and IP voice network. Our large library of voice and text APIs enables our customers to incorporate into their products and services a broad range of capabilities not otherwise attainable.
- *Purpose-Built IP Voice Network.* Our Bandwidth Communications Platform's IP voice network, which we own and operate nationwide, supports our ability to scale at a reliable and consistent quality for the enterprises we serve. The control and scale we have over our own IP voice network integrated with our Bandwidth Communications Platform provides us distinct competitive advantages that include consistent high quality, in-depth enterprise support, real-time network visibility and economies of scale. Our IP voice network supported approximately 27 billion minutes and 10 billion messages for

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the twelve months ended June 30, 2017 and approximately 52 million active phone numbers and 8 million 911-enabled phone numbers as of June 30, 2017.

- *Deep Experience and Expertise in Voice and Messaging.* The combination of our versatile software API platform and our IP voice network control allows us to offer not just best efforts, but best-in-class voice and messaging solutions for enterprises. Our senior leadership team has a combined 135 years of industry experience and an average tenure with Bandwidth of almost 10 years. Additionally, we have approximately 80 full-time software developers and engineers focused on voice and messaging, which represents approximately 25% of our employees.
- *Growing, Long-Term Relationships with Low Customer Churn.* We deliver comprehensive solutions that address the unique and complex needs of the enterprises we serve. As a result, these enterprises have continued to innovate and grow with our platform over extended timeframes. Our relationship with each of the enterprises we serve often expands across different product suites, divisions and use cases over time. Our customers include large enterprises and small and medium-sized businesses across various industries, and we rarely lose customers that have been on our platform for more than three months. For example, our largest enterprise customer has been on our platform for more than ten years. Based on surveys conducted after customer interactions, since January 1, 2017, our customers have expressed a 97% satisfaction rate.
- *CPaaS-Based 911 Network Capabilities.* We believe we are the only CPaaS software provider with 911 capabilities. We believe our 911 capabilities provide a significant advantage as compared to software platform providers that are enabling residential voice services through new connected device experiences. Moreover, our dynamic geospatial routing capability routes 911 calls based on a real-time location of the caller to produce industry-leading results.

Our Growth Strategy

- *Grow Our Enterprise Customer Base.* We believe there is a substantial opportunity to increase our enterprise customer base across a broad range of industries and companies. Building on our strong sales and marketing efficiency foundation of 181% in 2016, we plan to continue to grow and invest in our direct sales force and marketing to increase our enterprise customer base. Sales and marketing efficiency is calculated by taking CPaaS revenue for the year ended December 31, 2016 less CPaaS revenue for the equivalent period in the prior year and dividing it by sales and marketing expenses for the year ended December 31, 2015.
- *Expand Existing Enterprise Relationships.* We will continue to expand our relationships with our existing enterprise customers. For example, enterprises often initially purchase only our voice solution and later expand to also purchase our messaging and 911 services. Additionally, we are able to help enterprises scale efficiently and offer their solutions to more of their customers as they grow.
- *Continue to Innovate Our Platform.* We are committed to building on our track record of leveraging our innovative product capabilities to meet our customers' needs, just as we have done for 18 years, through dramatic waves of change in communications technology. We were early to deploy software-based networks and to offer hosted cloud-based voice services, while building out one of the fastest growing IP voice networks over the last ten years. Our team has continued to adapt to a dynamic environment to grow our business, and we intend to invest in continued development of our platform and product features to support new use cases such as VPAs and help our enterprise customers succeed as communications technologies evolve.
- *Continue Our Focus on Enterprise Customer Satisfaction.* We intend to continue focusing on delivering world-class services and support to the enterprises we serve to ensure a high level of satisfaction. We believe that satisfied customers provide vital product feedback, purchase additional services, renew contracts at a high rate and provide broad advocacy and new customer referrals for our business.

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- *Explore the Development and Growth of Our International Offerings.* Today, our international services are limited to outbound international calling and outbound international messaging. Some of our enterprise customers operate globally or have plans to so. While we do not have specific expansion plans, we are actively exploring opportunities, including those where we might have a cost or quality advantage in serving our customers.
- *Pursue Acquisitions and Strategic Investments Selectively.* We may selectively pursue acquisitions and strategic investments in businesses and technologies that strengthen our platform.

Our Customers

We have a broad and diversified customer base. We benefit from longstanding relationships with well-recognized enterprise customers, as well as small and medium-sized businesses. Our relationships with our top 20 customers average five years, with no single customer representing more than 8% of CPaaS revenue for the twelve months ended June 30, 2017, and our top ten customers accounting for less than 30% of CPaaS revenue for the same time period. As of June 30, 2017, two active CPaaS customer accounts were part of the same organization, otherwise all active CPaaS customer accounts were related to unique organizations active CPaaS customer accounts.

Our management is highly focused on creating and maintaining strategic partnerships beyond standard transactional customer relationships. We empower enterprises to create, scale and operate voice or text communications services across any mobile application or connected device and this reinforces our customer relationships.

The majority of our customers sign master service agreements (“MSAs”) that contain standard terms and conditions, including billing and payment, default, termination, limitations of liability, confidentiality, assignment and notification, and other key terms and conditions. Customers order specific services in separate service order forms that incorporate the applicable MSA. Each service order form details the minimum contract duration, any applicable monthly recurring charge and applicable non-recurring charges. The terms and conditions for each order are also specified in the applicable service order form.

Customer Case Studies

ZipRecruiter

Challenge: Hiring platform, ZipRecruiter, wanted to be able to scale their new high-performing SMS Job Alerts feature, but their current provider could not offer the right support package and price structure to fit their large user base. Being able to scale effectively and efficiently was their top priority.

Solution: Bandwidth’s team worked hand-in-hand with ZipRecruiter to migrate the SMS Job Alerts feature seamlessly and scale at a much faster rate due to fewer cost complexities, reliable APIs, high-quality message deliverability and lower cost.

Dialpad

Challenge: Dialpad’s enterprise customers need to replace on-premises private branch exchange systems, which require physical infrastructure, regular maintenance and people to manage and which tie employees to desk phones, limiting their ability to collaborate on-the-go.

Solution: Dialpad integrates with our Bandwidth Communications Platform to deliver high-quality voice and messaging services for today’s anywhere enterprise employee. Fast, scalable and entirely cloud-based, Dialpad relies on us to enable enterprises to connect their employees and provide them with the freedom to work anywhere.

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Rover

Challenge: Rover.com connects pet parents with the nation's largest network of pet sitters and dog walkers. Through Rover, pet parents can discover, book and manage personalized care for their dogs, including pet sitting, dog walking, in-home dog boarding and doggy day care. Rover's initial communication was web-based, and users were notified via email when they had a new message. Rover wanted to add SMS and voice-calling functionality but found that its communications partner lacked the volume pricing it needed to scale with growing consumer demand.

Solution: We helped Rover to allow pet owners and sitters to communicate without disclosing their personal phone numbers. As a result, Rover now has access to a sufficient quantity of phone numbers nationwide, delivered through simple and flexible software APIs. Pet owners can check in with their pet sitter and schedule an appointment by phone call or text message, and pet sitters can send picture messages of pets to owners, all using anonymous phone numbers on their own mobile phones.

Kipsu

Challenge: Kipsu wanted to make it easier for both guests and hotel management to keep in touch throughout a guest's visit.

Solution: Kipsu chose Bandwidth's APIs for scalable, full-featured texting that could be incorporated quickly and easily into their existing application. Hotel guests benefit from the frictionless ease of texting to order room service, book transportation or request local restaurant recommendations. Hotels see increased engagement, and Kipsu was able to scale immediately to accommodate the needs of their major hospitality brand customers.

Sales and Marketing

Our sales and marketing teams work together to identify and establish relationships with prospects, acquire new enterprise customers, expand relationships with existing enterprises and integrate them with our Bandwidth Communications Platform. Our marketing staff generates leads through our website, online marketing campaigns, webinars, sponsored events, white papers, public relations and other outbound lead development efforts. Our marketing staff also targets companies with products that could use our services for the first time or to displace our competitors. Our marketing initiatives enhance awareness and adoption of our services.

We engage potential customers and existing customers through an enterprise sales approach. Our sales executives directly engage C-level executives and other senior business, product and technical decision makers responsible for the end user experience and financial results at their enterprises. Our sales executives work to educate these decision makers and their teams about the benefits of using our Bandwidth Communications Platform to launch and scale robust communications experiences. Our sales team includes sales development, inside sales, field sales and sales engineering personnel.

As of June 30, 2017, we had 48 employees in our sales and marketing organization, 27 of which were sales representatives and all of whom were inside sales. All inside sales representatives have incentivized sales quota requirements and are thus compensated and evaluated in terms of achieving prescribed levels of sales performance during specified periods. As of December 31, 2016, we had 38 individuals in our sales and marketing organization, of which 23 were inside sales representatives. As of December 31, 2015, we had 30 individuals in our sales and marketing organization, of which 19 were inside sales representatives.

Research and Development

Our ability to compete depends in large part on our continuous commitment to R&D. We also seek to continuously enhance our existing services and develop new products and services. Our product and network

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teams are responsible for the design, development, testing and release of our platform. These teams closely coordinate with our executive management, which is responsible for creating a vision for our platform, and with our sales and marketing teams, which relay enterprise demands and possible new use cases or enhancements. Our development efforts focus on the availability and resiliency of our Bandwidth Communications Platform and our IP voice network, including infrastructure, ease-of-use and flexibility, end-user experience and ability to integrate with other enterprise systems. R&D expense totaled \$7.4 million, \$8.5 million and \$5.1 million for the years ended December 31, 2015 and 2016 and the six months ended June 30, 2017, respectively.

Competition

The CPaaS market is rapidly evolving and increasingly competitive. We believe that the principal competitive factors in our market are:

- platform scalability, reliability and performance;
- network control and quality;
- completeness of offering;
- ease of integration and programmability;
- product features;
- customer support;
- ability to deliver measurable value and savings;
- the cost of deploying and using our service offerings;
- the strength of sales and marketing efforts;
- brand awareness and reputation; and
- credibility with product executives and developers.

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

Our competitors fall into two primary categories:

- CPaaS companies, such as Twilio and Nexmo, that offer a narrower set of software APIs, less robust customer support and fewer other features while relying on third-party networks and physical infrastructure; and
- network service providers that offer limited developer functionality on top of their own networks and physical infrastructure, such as AT&T, Level 3 and Verizon.

Some of our competitors have greater financial, technical and other resources, greater geographic reach, 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 enterprise 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 services 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 registered and unregistered trademarks to protect our brand.

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As of June 30, 2017, we had eight U.S. patents and six U.S. patent applications pending. In addition, as of June 30, 2017, we had 20 registered trademarks and one pending trademark application in the United States.

We 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. 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. In the future, we may face allegations that we have infringed the intellectual property rights of third parties, including our competitors and non-practicing entities.

Employees

As of June 30, 2017, we had a total of 338 employees, all of whom are located in the United States. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We have not experienced any work stoppages, and we consider our relations with our employees to be good.

Facilities

Our principal executive office is in Raleigh, NC and consists of approximately 125,000 square feet of space, including approximately 35,000 square feet of space subject to a facilities sharing agreement with Republic Wireless, under a lease that expires in July 2022. In addition to our headquarters, we lease space in Denver, CO and Rochester, NY, each of which are used for both our CPaaS and Other segments. We also maintain data centers located in Raleigh, NC (including our network operations center); Los Angeles, CA; Dallas, TX; Atlanta, GA; and New York, NY.

We lease all our facilities and do not own any real property. We may procure additional space in the future as we continue to add employees or 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.

Regulatory

General

We and the communications services that we provide through our software APIs are subject to many U.S. federal and state and foreign laws and regulations. These laws and regulations may involve telecommunications, as well as privacy, data protection, intellectual property, competition, consumer protection, taxation or other subjects. Many of the laws and regulations to which we and the communications services that we provide through our software APIs are subject are still evolving and being tested in courts 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 laws and regulations have continued to develop and evolve rapidly, it is possible that we may not be, or may not have been, compliant with each such applicable law or regulation.

Federal Telecommunications Regulation

The FCC has jurisdiction over interstate and international telecommunications services. We have obtained FCC authorization to provide services on a facilities and resale basis, as well as via a wireless telecommunications license.

Under the Communications Act of 1934, as amended by the Telecommunications Act of 1996 (the “1996 Act”), any entity, including cable television companies and electric and gas utilities, may enter any telecommunications market, subject to reasonable state regulation of safety, quality and consumer protection. The industry continues to evolve toward new services built upon IP technologies. With these technological advances, there have been challenges to the traditional regulatory structure under the 1996 Act. One of the challenges that has arisen is fraud and abuse in the form of illegal robocalling and unwanted text messaging. The FCC has initiated several proceedings to understand and address fraud and abuse, illegal robocalling and unwanted text messaging. Much of the FCC’s efforts to thwart illegal robocalling involve or relate to the TCPA, which restricts telemarketing calls and the use of automatic text messages without the recipient’s proper consent. The scope and interpretation of these laws and regulations continue to evolve and develop. 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 the recipient’s proper consent, we could face direct liability.

VoIP Regulation. Some of our communications services provided through our software APIs may qualify as VoIP. The FCC has imposed various regulatory requirements on VoIP providers that previously applied only to traditional telecommunications providers, such as obligations to provide 911 functionality, to contribute to the federal universal service fund, to comply with regulations relating to local number portability, to abide by the FCC’s service discontinuance rules, to contribute to the Telecommunications Relay Services fund and to abide by the regulations concerning Customer Proprietary Network Information, outage reporting, access for persons with disabilities and the Communications Assistance for Law Enforcement Act. In some instances, these regulations indirectly affect us because they directly apply to our customers. Several state public utility commissions are conducting regulatory proceedings that could affect our rights and obligations, or the rights and obligations of our customers, with respect to IP-based voice applications. Specifically, some states have taken the position that the “local” component of VoIP service is subject to traditional regulations applicable to local telecommunications services, such as the obligation to pay intrastate universal service fees. We cannot predict whether the FCC or state public utility commissions will impose additional requirements, regulations or charges upon our provision of services related to IP communications.

Universal Service. Some of our services are subject to federal and state regulations that implement universal service support for access to communications services in rural and high-cost areas and to low-income consumers at reasonable rates; and access to advanced communications services by schools, libraries and rural health care providers. In some instances, these regulations indirectly affect us because they directly apply to our customers. The FCC assesses us a percentage of interstate and international revenue we receive from retail customers as our contribution to the Federal Universal Service Fund, which assessments we generally pass on to our customers. Additionally, the FCC has ruled that states may assess contributions to their state Universal Service Funds on VoIP providers’ intrastate revenue. Any change in the assessment methodology may affect our revenue and expenses, but at this time it is not possible to predict the extent we would be affected, if at all.

Intercarrier Compensation. Telecommunications carriers compensate one another for traffic carried on each other’s networks. Interexchange carriers pay access charges to local telephone companies for long distance calls that originate and terminate on local networks. Local telephone companies historically have charged one another for local and Internet-bound traffic terminating on each other’s networks. The methodology by which carriers have compensated one another for exchanged traffic, whether it be for local, intrastate or interstate traffic, has been under review by the FCC for over a decade and continues to be subject to on-going reform efforts.

In November 2011, the FCC released its Universal Service Fund/Intercarrier Compensation Transformation Order (the “USF/ICC Transformation Order”). Along with addressing other matters, the USF/ICC

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Transformation Order established a prospective intercarrier compensation framework for terminating switched access and VoIP traffic. Under the USF/ICC Transformation Order and subsequent related FCC orders, most terminating switched access charges and all reciprocal compensation charges were capped at then-current levels, and will be reduced to zero over, as relevant to us, generally a six-year transition period that began July 1, 2012.

Pursuant to the USF/ICC Transformation Order, VoIP, while remaining unclassified as either an information or a telecommunications service, was prospectively categorized as either local or non-local traffic. If “local”, then VoIP traffic is subject to reciprocal compensation; if “non-local”, then it is subject to interstate rates, thus eliminating any intrastate access rate applicable to VoIP. The USF/ICC Transformation Order did not address the treatment of VoIP retroactively. During 2015, the FCC issued clarifications concerning the rating of VoIP traffic that were favorable to us. Those clarifications were appealed, and in November 2016 the appellate court vacated the FCC’s 2015 clarification and ruled that additional action by the FCC is required. At this time, we cannot predict the outcome of the FCC actions.

State Telecommunications Regulation

The 1996 Act intended to increase competition in the telecommunications industry, especially in the local market. With respect to local services, incumbent local exchange carriers (or “ILECs”) such as AT&T are required to allow interconnection to their incumbent networks and to provide access to network facilities, as well as several other pro-competitive measures.

State regulatory agencies have jurisdiction when our facilities and services are used to provide intrastate telecommunications services. A portion of our traffic may be classified as intrastate telecommunications and therefore subject to state regulation. We are authorized to provide competitive local exchange telecommunications services in 49 states and the District of Columbia, and thus are subject to these additional regulatory regimes. Changes in applicable state regulations could affect our business.

In addition, we need to maintain interconnection agreements with ILECs where we wish to provide service, which are subject to approval by individual states and subject to state arbitration in the event of disputes. We expect that we should be able to negotiate or otherwise obtain renewals or successor agreements through adoption of others’ contracts or through arbitration proceedings, although the rates, terms and conditions applicable to interconnection and the exchange of traffic with certain ILECs could change significantly in certain cases.

Legal Proceedings

In April 2014, Phone Recovery Services, LLC (“Phone Recovery Services”) filed a complaint against us in the Superior Court of the District of Columbia. The complaint alleges that we failed to bill, collect and remit certain taxes and surcharges associated with the provision of 911 services pursuant to applicable laws of the District of Columbia. In November 2015, the Superior Court of the District of Columbia dismissed Phone Recovery Services’ complaint with prejudice. Phone Recovery Services subsequently appealed, and we are currently awaiting a decision regarding Phone Recovery Services’ appeal.

Phone Recovery Services, acting or purporting to act on behalf of applicable jurisdictions, or the applicable county or city itself, has filed similar lawsuits against us and/or one of our subsidiaries in the Superior Court of the State of Rhode Island, the Court of Common Pleas of Allegheny County, Pennsylvania and the District Court of Ramsey County, Minnesota that are currently in various stages of litigation. The case in Ramsey County, Minnesota was dismissed in November 2016; in August 2017, the Minnesota Court of Appeals affirmed that dismissal. On September 5, 2017, Phone Recovery Services filed a notice of appeal to the Minnesota Supreme Court. To date, we have not received any material adverse decision in connection with those matters.

We face similar lawsuits brought directly by various state and local governments alleging underpayment of 911 taxes and surcharges, although we understand that Phone Recovery Services is working in conjunction with

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each state or local government as a consultant on a contingency basis. The following county or municipal governments have named us in lawsuits associated with the collection and remittance of 911 taxes and surcharges: Birmingham Emergency Communications District, Alabama; Clayton County, Cobb County, DeKalb County, Fulton County, Gwinnett County, Macon-Bibb County, Georgia and Columbus Consolidated Government, Georgia (collectively, the “Georgia Cases”); Cook County and Kane County Illinois; City of Chicago, Illinois; the State of Illinois (collectively, the “Illinois Case”); Beaver County, Berks County, Bucks County, Butler County, Chester Co., Clarion County, Cumberland County, Dauphin County, Delaware County, Lancaster County, Lebanon County, Mercer County, Somerset County, Washington County, Westmoreland County, and York County, Pennsylvania (collectively, the “Pennsylvania Cases”); and Charleston County, South Carolina. The complaints allege that we failed to bill, collect and remit certain taxes and surcharges associated with 911 service pursuant to applicable laws. The Georgia Cases have been closed administratively during the appeal of a related case in the Georgia courts; the Georgia Cases may be reopened. We understand that Augusta-Richmond County, Bartow County, Chatham County, Cherokee County, City of Atlanta, City of Savannah, Forsyth County, Houston County and Spalding County, Georgia each intends to initiate legal proceedings against us with allegations substantially similar to those in the Georgia Cases. The Pennsylvania Case in Butler County, Pennsylvania was dismissed in August 2016; the Pennsylvania Cases have been stayed until the appeal of the dismissal of the Butler County, Pennsylvania Case is resolved. The Illinois Case was dismissed in December 2016; Phone Recovery Services timely filed a notice of appeal and the appeal is underway.

In August 2016, we received a Civil Investigative Demand from the Consumer Protection Division of the North Carolina Department of Justice, though no formal complaint has been filed in connection with that investigation. The North Carolina Department of Justice is investigating the billing, collection and remission of certain taxes and surcharges associated with 911 service pursuant to applicable laws of the State of North Carolina.

We also have ongoing litigations against MCI Communications Services, Inc. d/b/a Verizon Business and Verizon Select Services, Inc. (collectively, “Verizon”) in the United States District Court for the Northern District of Texas. In April 2016, we filed counterclaims against Verizon. We are pursuing collection of unpaid intercarrier compensation charges for providing switched access services related to the exchange of telecommunications traffic with Verizon entities across the United States. Verizon has filed a motion to permit it to assert a counterclaim against us. We intend to contest any such counterclaim vigorously. Verizon’s prior September 2014 complaint against us and other defendants regarding intercarrier compensation charges for providing switched access services related to the exchange of telecommunications traffic has been dismissed without prejudice, but remains subject to appeal.

MANAGEMENT

Executive Officers and Directors

The following table provides information regarding our executive officers and directors as of October 23, 2017:

<u>Name</u>	<u>Age</u>	<u>Position</u>
David A. Morken	48	Cofounder, Chief Executive Officer and Chairman
John C. Murdock	52	President and Director
Jeff Hoffman	48	Chief Financial Officer
W. Christopher Matton	47	General Counsel
Henry R. Kaestner	47	Cofounder and Director
Brian D. Bailey	51	Director
Douglas A. Suriano	56	Director

David A. Morken is the Cofounder, Chairman and CEO of Bandwidth. Mr. Morken is also the Cofounder, Chairman and former CEO of Republic Wireless. Mr. Morken is the Cofounder of Durham Cares. Prior to founding Bandwidth in 1999, Mr. Morken served on active duty in the Marine Corps as a Judge Advocate and Headquarters Company Commander. Mr. Morken received a B.A. in Political Science from Oral Roberts University and a J.D. from the University of Notre Dame Law School. We believe that Mr. Morken is qualified to serve on our board of directors as our Cofounder and due to his knowledge of our company and our business.

John C. Murdock joined Bandwidth in 2008 and serves as President and board member. Mr. Murdock previously served as Bandwidth's General Counsel. Additionally, Mr. Murdock serves as a board member of Republic Wireless. Prior to joining Bandwidth, Mr. Murdock founded a specialized law firm with a national level complex civil litigation practice. As a Marine officer, Mr. Murdock served on active duty, including combat service in Operation Desert Shield/Storm. Mr. Murdock obtained a B.S. in Finance from Miami University of Ohio, with an NROTC scholarship and a J.D. from the University of Notre Dame Law School. We believe that Mr. Murdock is qualified to serve on our board of directors due to his knowledge of our company and our business.

Jeff Hoffman joined Bandwidth in 2011 and serves as Chief Financial Officer. Mr. Hoffman oversees all financial operations for Bandwidth, including accounting, treasury, tax, financial analysis and reporting and is responsible for developing and implementing financial systems and reporting structures. Mr. Hoffman brings more than 18 years of financial management experience and has held senior positions with public and leading private equity sponsored companies. Before joining Bandwidth, he served as Vice President of Financial Planning & Analysis for Hawaiian Telcom where he led the company's budgeting, financial modeling and management reporting functions. In addition, Jeff was a key contributor to Hawaiian Telcom's capital restructuring and listing on NASDAQ in 2010. Prior to Hawaiian Telcom, Mr. Hoffman served as the Director of Finance and Planning for Madison River Communications where he was instrumental in many mergers and acquisitions throughout the company's history including its eventual acquisition by CenturyLink in 2007. Jeff earned a B.A. in Economics and International Relations from the University of Wisconsin at Madison and an MBA from the Kellogg Graduate School of Management at Northwestern University.

W. Christopher Matton has served as General Counsel of Bandwidth since 2010. As General Counsel, Mr. Matton provides support and counsel for corporate, human resources, intellectual property, legal and regulatory matters. Prior to joining Bandwidth, Mr. Matton was a partner at Kilpatrick Stockton LLP. Mr. Matton also previously served on the founding team and board of managers of Veritas Collaborative, an eating disorder treatment hospital system. Mr. Matton has worked with companies ranging from early stage to publicly traded

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companies and has represented clients in connection with venture capital financings, private equity financings, mergers and acquisitions, public and private offerings of securities and other corporate matters. Mr. Matton earned a B.S. in Economics from the Wharton School of the University of Pennsylvania and a J.D. from Wake Forest University where he also served as the Executive Editor of the Wake Forest Law Review.

Henry R. Kaestner joined David Morken as Cofounder in 2001 when he merged Bandwidth International into Bandwidth.com and subsequently served as CEO until early 2008. Mr. Kaestner has served as a director of Bandwidth since 2001 and also serves as a director of Republic Wireless. Mr. Kaestner is a Cofounder and Managing Principal of Sovereign's Capital, a private investment firm headquartered in Raleigh, North Carolina with offices in Jakarta, Indonesia and Los Gatos, California. Mr. Kaestner previously served as the CEO of Bandwidth International, an international wholesale telecommunications broker based in London, England. Mr. Kaestner was also a founder of Chapel Hill Broadband, a U.S.-based consultant and broker that specialized in dark fiber and large wholesale transactions that was sold to Cantor Fitzgerald. In addition, Mr. Kaestner was a Founder and former President and CEO of Chapel Hill Brokers, an energy broker which achieved more than \$50 million in daily trade volume on more than 150 transactions, for clients including Morgan Stanley and Merrill Lynch. Chapel Hill Brokers was sold to APB Energy (now ICAP Energy) in 1999. Mr. Kaestner received a B.A. in international relations from the University of Delaware. We believe that Mr. Kaestner is qualified to serve on our board of directors as our Cofounder and due to his experience in the private equity industry and as an executive officer in other businesses.

Brian D. Bailey has served as a director of Bandwidth since February 2013. Mr. Bailey is a Cofounder and Managing Partner of Carmichael Partners, a private investment firm based in Charlotte, North Carolina. Prior to forming Carmichael Partners, he worked in private equity at The Carlyle Group in Washington, Forstmann Little & Co. in New York and Carousel Capital in Charlotte. In addition to his private equity background, Mr. Bailey previously held investment banking positions at Bowles Hollowell Conner & Co. in Charlotte and CS First Boston in New York and served in several government positions in Washington including Special Assistant to the President in the Office of the White House Chief of Staff and Director of Strategic Planning and Policy at the U.S. Small Business Administration. Mr. Bailey currently serves on the boards of Bandwidth, Bluerock Residential Growth REIT, Republic Wireless and the TDF Foundation. He has previously served on the boards of a number of private, public and nonprofit organizations. Mr. Bailey holds a B.A. degree from the University of North Carolina at Chapel Hill and an M.B.A. degree from the Stanford Graduate School of Business. We believe that Mr. Bailey is qualified to serve on our board of directors due to his experience in the private equity industry and as a director of public and private companies.

Douglas A. Suriano has served as a director of Bandwidth since October 2017. Mr. Suriano is senior vice president and general manager of Oracle Communications. Mr. Suriano joined Oracle Communications in 2013 as vice president of products following Oracle Communications' acquisition of Tekelec, Inc. At Tekelec, Inc., Mr. Suriano served as chief technology officer and vice president of engineering. Prior to Tekelec, Inc., Mr. Suriano served as the vice president of engineering at dynamicsoft, Inc. and chief information officer for QAD, Inc. Before QAD, Inc., Mr. Suriano managed the information technology division for the United States Marine Corps. Mr. Suriano holds a B.S. degree from the U.S. Naval Academy and an M.S. in information technology from the U.S. Naval Postgraduate School. We believe that Mr. Suriano is qualified to serve on our board of directors due to his business experience in the information technology and communications industries.

Family Relationships

There are no family relationships among any of our directors or executive officers.

Director Independence

Under the listing requirements and rules of the NASDAQ Global Select Market, independent directors must comprise a majority of a listed company's board of directors within a specified period of the completion of this

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offering. In addition, the rules of the NASDAQ Global Select Market require that, subject to specified exceptions, each member of a listed company's audit, compensation and governance and nominating committees be independent.

Our board of directors has undertaken a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that Messrs. Bailey and Suriano, representing two of our five directors, 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 applicable rules and regulations of the SEC and the listing requirements and rules of the NASDAQ Global Select Market. In making this determination, 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.

Board Composition

Our board of directors consists of five directors, which we expect to increase to six directors within one year of this offering. In accordance with our second amended and restated certificate of incorporation, our board of directors will be divided into three classes with staggered three-year terms. At each annual general meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors are divided among the three classes as follows:

- The Class I directors are Messrs. Bailey and Kaestner, and their terms will expire at the annual general meeting of stockholders to be held in 2018;
- The Class II directors are Messrs. Murdock and Suriano, and their terms will expire at the annual general meeting of stockholders to be held in 2019; and
- The Class III director is Mr. Morken and his term will expire at the annual general meeting of stockholders to be held in 2020.

We expect that additional directorships resulting from an increase 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 the directors.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Board Oversight of Risk

One of the key functions of our board of directors is informed oversight of our risk management process. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure. Our executive officers are responsible for the day-to-day management of the material risks we face. Our board of directors administers its oversight function directly as a whole, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. For example, our audit committee is responsible for overseeing the management of risks associated with our financial reporting, accounting and auditing matters; our compensation committee oversees the management of risks associated with our compensation policies and programs.

Controlled Company

Following the IPO-Related Reorganization, we expect that Mr. Morken will control a majority of our outstanding voting power and we will be a "controlled company" under the corporate governance rules of the

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NASDAQ Global Select Market. Therefore, we will not be required to have a majority of our board of directors be independent, nor will we be required to have a compensation committee or an independent nominating function. Additionally, as described in the section entitled “Description of Capital Stock—Anti-Takeover Provisions,” so long as the outstanding shares of our Class B common stock represent a majority of the combined voting power of our common stock, Mr. Morken will be able to effectively control all matters submitted to our stockholders for a vote, as well as the overall management and direction of our company.

Board Committees

Our board of directors has established the following committees: an audit committee and a compensation committee. The composition and responsibilities of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors.

Audit Committee

Our audit committee provides oversight of our accounting and financial reporting process, the audit of our consolidated financial statements and our internal control function. Among other matters, the audit committee assists the board of directors in oversight of the independent auditors’ qualifications, independence and performance; is responsible for the engagement, retention and compensation of the independent auditors; reviews the scope of the annual audit; reviews and discusses with management and the independent auditors the results of the annual audit and the review of our quarterly consolidated financial statements including the disclosures in our annual and quarterly reports filed with the SEC; reviews our risk assessment and risk management processes; establishes procedures for receiving, retaining and investigating complaints received by us regarding accounting, internal accounting controls or audit matters; approves audit and permissible non-audit services provided by our independent auditor; and reviews and approves related party transactions under Item 404 of Regulation S-K. In addition, our audit committee oversees our internal audit function.

The current members of our audit committee are Mr. Bailey, who is the chair of the committee, and Messrs. Suriano and Murdock. Our board of directors has determined that all members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and the NASDAQ Global Select Market. Our board of directors has determined Mr. Bailey is an audit committee financial expert as defined under the applicable rules of the SEC and has the requisite financial sophistication as defined under the rules and regulations of the NASDAQ Global Select Market. Two of the members of our audit committee are independent directors as defined under the applicable rules and regulations of the SEC and the NASDAQ Global Select Market.

Compensation Committee

Our compensation committee adopts and administers the compensation policies, plans and benefit programs for our executive officers and all other members of our executive team. In addition, among other things, our compensation committee annually evaluates, in consultation with the board of directors, the performance of our CEO, reviews and approves corporate goals and objectives relevant to compensation of our CEO and other executives and evaluates the performance of these executives in light of those goals and objectives. Our compensation committee also adopts and administers our equity compensation plans. The current members of our compensation committee are Mr. Bailey, who is the chair of the committee, and Messrs. Suriano and Morken. Two of the members of our compensation committee are independent under the applicable rules and regulations of the SEC, the NASDAQ Global Select Market, Section 16 of the Exchange Act and Section 162(m) of the Code.

Director Nominations

We do not have a standing nominating committee. In accordance with Rule 5605(e) of the NASDAQ rules and subject to the phase-in schedules for initial public offerings pursuant to Rule 5615(b)(1) of the NASDAQ

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rules, a majority of the independent directors may recommend a director nominee for selection by our board of directors. Our board of directors believes that the independent directors can satisfactorily carry out the responsibility of properly selecting or approving director nominees without the formation of a standing nominating committee. The directors who will participate in the consideration and recommendation of director nominees are Messrs. Bailey and Suriano. Following the IPO-Related Reorganization, we expect to become a “controlled company” within the meaning of NASDAQ’s corporate governance standards, and at such time we will be exempt from the requirement that director nominees be selected by our independent directors and will instead be decided by our full board.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee is or has at any time during the past year been one of our officers or employees. 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 of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Code of Business Conduct and Ethics

Prior to the completion of this offering, we expect to adopt a code of business conduct and ethics that will be applicable to all of our employees, officers and directors, including our principal executive officer, principal financial officer and principal accounting officer. The code of business conduct and ethics will be available on our website prior to the closing of this offering. The board of directors will be responsible for overseeing the code of business conduct and ethics and must approve any waivers for employees, executive officers and directors. We expect that any amendments or waivers will be disclosed on our website or in a current report on Form 8-K.

Director Compensation

Prior to this offering, we have generally not provided any cash compensation to our non-employee directors for their service on our board. We have a policy of reimbursing all of our non-employee directors for their reasonable out-of-pocket expenses in connection with attending board of directors and committee meetings.

Prior to the pricing of this offering, we intend to implement a formal policy pursuant to which our non-employee directors will be eligible to receive the following cash retainers.

<u>Annual Retainer for Board Membership</u>	
Annual service on the board of directors	\$50,000
<u>Annual Retainer for Committee Membership</u>	
Annual service as member of the audit committee (other than chair)	\$ 5,000
Annual service as chair of the audit committee	\$10,000
Annual service as member of the compensation committee (other than chair)	\$ 2,500
Annual service as chair of the compensation committee	\$ 5,000

EXECUTIVE COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the “2016 Summary Compensation Table” below. In 2016, our “named executive officers” and their positions were as follows:

- David Morken, Chief Executive Officer;
- John Murdock, President;
- Chris Matton, General Counsel; and
- Jeff Hoffman, Chief Financial Officer.

We are an “emerging growth company,” within the meaning of the JOBS Act, and have elected to comply with the reduced compensation disclosure requirements available to emerging growth companies under the JOBS Act.

2016 Summary Compensation Table

Name and Principal Position	Year	Salary (\$)	Bonus (\$)(1)	Non-Equity Incentive Plan Compensation (\$)(2)	All Other Compensation (\$)(3)	Total
David Morken, Chief Executive Officer	2016	375,000	100,000	450,000	250	925,250
John Murdock, President	2016	304,890	100,000	208,580	—	613,470
Chris Matton, General Counsel	2016	289,877	75,000	173,955	7,950	546,782
Jeff Hoffman, Chief Financial Officer	2016	289,877	75,000	173,955	7,950	546,782

(1) Amounts shown represent discretionary cash bonuses paid based on our Spin-Off in November 2016. For additional information, refer to the discussion in the “Narrative Disclosure to 2016 Summary Compensation Table” below under the heading “—2016 Transaction Bonus Awards.”

(2) Amounts shown represent annual cash performance bonuses earned for 2016. For additional information, refer to the discussion in the “Narrative Disclosure to 2016 Summary Compensation Table” below under the heading “—2016 Annual Incentive Compensation.”

(3) Amount shown represents 401(k) matching contributions. For additional information, refer to the discussion in the “Narrative Disclosure to 2016 Summary Compensation Table” below under the heading “—Retirement, Health, Welfare and Additional Benefits.”

Narrative Disclosure to 2016 Summary Compensation Table

The primary elements of compensation for our named executive officers are base salary, annual performance bonuses and long-term equity-based compensation awards. The named executive officers also generally participate in employee benefit plans and programs that we offer to our other full-time employees on the same basis.

Base Salaries

We pay our named executive officers a base salary that is intended to provide a fixed component of compensation reflecting the executive’s skill set, experience, role and responsibilities. Base salaries for our

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named executive officers have generally been set at levels deemed necessary to attract and retain the named executive officers and were originally established in each named executive officer's employment agreement or offer letter. The following table shows the annual base salaries for 2016 and 2017 of our named executive officers.

<u>Name</u>	<u>2016 Annual Base Salary (\$)</u>	<u>2017 Annual Base Salary (\$)</u>
David Morken	375,000	375,000
John Murdock	304,890	340,000
Chris Matton	289,877	304,000
Jeff Hoffman	289,877	304,000

2016 Annual Incentive Compensation

Our named executive officers have the opportunity to earn annual cash bonuses to compensate them for attaining certain company and individual performance goals. The 2016 target bonus amounts for our named executive officers were 100% of annual base salary for Mr. Morken, and 50% of annual base salary for Mr. Hoffman, Mr. Matton and Mr. Murdock. Actual payout levels were determined in early 2017 based on overall 2016 performance, taking into account the Company's achievement of its financial objectives for revenue, gross margin and adjusted EBITDA and the named executive officer's achievement of personal objectives established by the Company relating to the strategic, tactical and functional objectives of his respective business unit or of the Company as a whole. The actual cash bonuses earned by our named executive officers for 2016 are reported under the "Non-Equity Incentive Plan Compensation" column of the 2016 Summary Compensation Table above.

2016 Transaction Bonus Awards

As part of their compensation for 2016, each of our named executive officers received a one-time discretionary transaction-related bonus based on the successful Spin-Off of Republic Wireless, Inc. in November 2016. These bonus amounts were earned as of November 2016 and were paid in December 2016. The amounts awarded to our named executive officers are reported under the "Bonus" column of the 2016 Summary Compensation Table above.

Equity Compensation

We generally offer stock options to our employees, including our named executive officers, as the long-term incentive component of our compensation program. We typically grant options to employees when they commence employment with us and may thereafter grant additional options in the discretion of our board of directors. Our stock options generally allow employees to purchase shares of our common stock at a price equal to the fair market value of our common stock on the date of grant, as determined by the board of directors, and may be intended to qualify as "incentive stock options" under the Internal Revenue Code.

Our stock options typically vest in equal annual installments over a four-year period, with the first such installment occurring on the first anniversary of the grant date (or an earlier vesting commencement date, if determined by the board of directors), subject to the holder's continued employment with us as of each applicable vesting date. From time to time, our board of directors may also construct alternate vesting schedules as it determines are appropriate to motivate particular employees. We did not award any stock options to our named executive officers during 2016.

In connection with this offering, we intend to adopt a 2017 Incentive Award Plan, referred to below as the 2017 Plan, in order to facilitate the grant of cash and equity incentives to directors, employees (including our named executive officers) and consultants of our company and certain of its affiliates and to enable our company and certain of its affiliates to obtain and retain services of these individuals, which is essential to our long-term success. For additional information about the 2017 Plan, please see the section entitled "2017 Incentive Award Plan" below.

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Retirement, Health, Welfare and Additional Benefits

Our named executive officers are eligible to participate in our employee benefit plans and programs, including medical and dental benefits, flexible spending accounts, long-term care benefits, and short- and (other than Mr. Morken) long-term life insurance, to the same extent as our other full-time employees, subject to the terms and eligibility requirements of those plans. Our named executive officers are also eligible to participate in a separate long-term disability plan which we maintain for our senior executives. Mr. Morken also participates in a separate life insurance plan that we maintain.

We sponsor a 401(k) defined contribution plan in which our named executive officers may participate, subject to limits imposed by the Internal Revenue Code, to the same extent as our other full-time employees. Currently, we match 3% of contributions made by participants in the 401(k) plan up to a maximum company match of . All matching contributions are subject to vesting at the rate of approximately 33% per year of service.

Outstanding Equity Awards at 2016 Fiscal Year-End

Name	Grant Date	Option Awards			
		Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date
David Morken	4/13/2012	337,500(1)	0	5.80	4/13/2022
John Murdock	10/2/2008	114,262(1)	0	5.80	10/2/2018
	10/2/2008	39,000(1)	0	5.80	10/2/2018
	7/26/2010	40,000(2)	0	5.80	7/26/2020
	3/15/2011	300,000(1)	0	5.80	3/15/2021
Chris Matton	7/26/2010	62,500(3)	0	5.80	7/26/2020
	7/26/2010	25,000(4)	0	5.80	7/26/2020
	3/15/2011	75,000(1)	0	5.80	3/15/2021
Jeff Hoffman	11/1/2011	81,522(1)	0	5.80	11/1/2021
	6/4/2014	59,205(4)	19,735	9.16	6/4/2024

(1) The options vested in equal annual installments over a four-year period, with the first such installment occurring on the first anniversary of the grant date.

(2) The options were fully vested as of the grant date.

(3) The options vested in annual installments over a four-year period, commencing on July 6, 2010, with the first such installment occurring on the second anniversary of the vesting commencement date and the subsequent installments occurring on the third and fourth anniversaries of the vesting commencement date.

(4) The options vest in equal annual installments over a four-year period, with the first such installment occurring on the first anniversary of the grant date, provided that in the event of a change in control or corporate reorganization, in either case, following the occurrence of any underwritten public offering by our company of its equity securities (including this offering), any unvested portion of the options shall vest and become exercisable immediately prior to such event, subject to Mr. Hoffman's continued service to us.

Employment Arrangements

We have entered into employment agreements or offer letters with each of our named executive officers. Certain key terms of these agreements are described below.

David Morken

We entered into an employment agreement with David Morken as of January 1, 2015 (as amended on March 9, 2017), which has an initial term until January 1, 2018 and which will automatically renew for additional

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one year periods unless either Mr. Morken or we give at least 60 days' notice of non-renewal to the other party. This agreement entitled Mr. Morken to receive an initial base salary of \$375,000 and the opportunity to earn an annual performance-based bonus, with a target of 100% of base salary, subject to the achievement of individual and company performance goals to be mutually agreed by our board and Mr. Morken at the beginning of each calendar year. Mr. Morken is also entitled to receive a cash bonus of \$750,000 upon the occurrence of our first firm commitment underwritten public offering resulting in gross proceeds of at least \$35 million that occurs during the term of the employment agreement, which we expect will be paid in connection with this offering. Upon a liquidity event in which there is a change of control of our company with a value of at least \$750 million (calculated on an enterprise basis) and the transaction commences during the term of the employment agreement and closes on or prior to December 31, 2023, Mr. Morken will additionally be entitled to receive a liquidity bonus as shown in the table below (the "Liquidity Bonus"), subject to Mr. Morken's continued employment through the date of such liquidity event (or his earlier termination by us for any reason or his resignation for "Good Reason" (as defined in his employment agreement) following the commencement of negotiations regarding the potential transaction).

<u>Value Calculated on Enterprise Basis</u>	<u>Liquidity Bonus</u>
\$750,000,000—\$999,999,999	\$ 5,000,000
\$1,000,000,000—\$1,249,999,999	\$ 10,000,000
\$1,250,000,000—\$1,499,999,999	\$ 12,500,000
\$1,500,000,000—\$1,749,999,999	\$ 15,000,000
\$1,750,000,000—\$1,999,999,999	\$ 17,500,000
\$2,000,000,000 or more	\$ 20,000,000

If payments to Mr. Morken from us would constitute an "excess parachute payment" within the meaning of Section 280G of the Code, and would be subject to the excise tax imposed by Section 4999 of the Code, then such payments (including the Liquidity Bonus) would be reduced to the extent necessary to avoid the payment of any excess parachute payments and to avoid Mr. Morken being subject to the excise tax imposed by Section 4999 of the Code.

The employment agreement with Mr. Morken provides that any then outstanding and unvested stock options or shares of restricted stock will immediately vest, and the options will be exercisable for the remainder of their full original term, upon the earliest of (i) Mr. Morken's death during the term of the agreement, (ii) a change in control of our company, or (iii) the termination of Mr. Morken's employment by us other than for "Cause" (as defined in his employment agreement and including our decision to not renew the term of the employment agreement) or by Mr. Morken for Good Reason. If Mr. Morken's employment is terminated (i) by us other than for Cause, (ii) by Mr. Morken for Good Reason, or (iii) by Mr. Morken for any reason within 12 months following a change of control of our company that is not approved by at least a majority of our board of directors, then, subject to his execution of a general release of claims in our favor, Mr. Morken is entitled to receive 150% of his then-current base salary plus 150% of his target bonus for the year of termination, payable over an 18 month period following the termination. If Mr. Morken is terminated by us other than for Cause, he will also be entitled to receive company-paid basic medical insurance premiums for 18 months following his termination and a lump sum equal to 18 months of premiums for the term life insurance coverage then in effect. Mr. Morken has agreed to refrain from disclosing our confidential information during or at any time following his employment with us and from competing with us or soliciting our employees or customers during his employment and for twelve months following termination of his employment.

John Murdock

We entered into an employment agreement with John Murdock, effective October 1, 2008, which has a current term that will expire on January 1, 2018 and which will automatically renew for additional one year periods unless either Mr. Murdock or we give at least 90 days' notice of non-renewal to the other party. This agreement entitled Mr. Murdock to receive an initial base salary of \$250,000 and the opportunity to earn a

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performance-based bonus, with an initial target of \$100,000, which will be considered and paid in 4 quarterly installments, subject to the achievement of individual and company performance goals.

The employment agreement provides that if we terminate Mr. Murdock without cause (as generally described in his employment agreement), Mr. Murdock will be entitled to receive 12 months of his then-current base salary. If Mr. Murdock terminates the employment agreement, he is entitled to receive six months of his then-current base salary. In the event of a termination of the employment agreement without cause, Mr. Murdock will be eligible to vest on a prorated basis in the portion of his stock options that would have otherwise vested in the twelve months following such termination.

Chris Matton

We entered into an employment agreement with Chris Matton, effective as of May 3, 2010, which has a current term that will expire on July 6, 2018, and which will automatically renew for additional one year periods unless either Mr. Matton or we give at least 90 days' notice of non-renewal to the other party. This agreement entitled Mr. Matton to receive an initial base salary of \$250,000 and the opportunity to earn an annual performance-based bonus, with an initial target of \$125,000, subject to the achievement of individual and company performance goals.

The employment agreement provides that if Mr. Matton's employment is terminated (i) by us without Cause or (ii) by Mr. Matton for "Good Reason" (as such capitalized terms are defined in his employment agreement), then Mr. Matton will be entitled to receive 12 months of base salary continuation. In the event of a termination of his employment without Cause, Mr. Matton will be eligible to vest on a prorated basis in the portion of his stock options that would have otherwise vested in the twelve months following such termination. Upon a sale or merger of our company, a stock exchange listing or public trading of our company's stock (including this offering), or other similar material event, all stock options shall vest in full.

Jeff Hoffman

We entered into an offer letter agreement with Mr. Hoffman, dated as of September 16, 2011, which provides for at-will employment. This agreement entitled Mr. Hoffman to an initial base salary of \$250,000 and the opportunity to earn an annual performance-based bonus, with a target of 50% of Mr. Hoffman's base salary, subject to the achievement of management by objective performance goals. Pursuant to the terms of his offer letter agreement, if Mr. Hoffman's employment is terminated (i) by us without "Cause," or (ii) by Mr. Hoffman for "Good Reason," (as such capitalized terms are defined in his employment agreement), then, subject to his execution of a general release of claims in our favor, Mr. Hoffman is entitled to receive six months of base salary continuation.

Incentive Plans

Our 2017 Incentive Award Plan

Effective prior to the first public trading date of our Class A common stock, we expect to have adopted and, our stockholders are expected to have approved, the 2017 Incentive Award Plan (the "2017 Plan"), under which we may grant cash and equity-based incentive awards to eligible service providers in order to attract, retain and motivate the persons who make important contributions to our company. The material terms of the 2017 Plan are summarized below.

Eligibility and Administration. Our employees, consultants and directors, and employees and consultants of our subsidiaries, will be eligible to receive awards under the 2017 Plan. The 2017 Plan will be administered by our board of directors, which may delegate its duties and responsibilities to one or more committees of our directors and/or officers (referred to collectively as the plan administrator below), subject to the limitations

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imposed under the 2017 Plan, Section 16 of the Exchange Act, stock exchange rules and other applicable laws. The plan administrator will have the authority to take all actions and make all determinations under the 2017 Plan, to interpret the 2017 Plan and award agreements and to adopt, amend and repeal rules for the administration of the 2017 Plan as it deems advisable. The plan administrator will also have the authority to determine which eligible service providers receive awards, grant awards and set the terms and conditions of all awards under the 2017 Plan, including any vesting and vesting acceleration provisions, subject to the conditions and limitations in the 2017 Plan.

Shares Available for Awards. An aggregate of _____ shares of our Class A common stock will initially be available for issuance under the 2017 Plan. No more than _____ shares of Class A common stock may be issued under the 2017 Plan upon the exercise of incentive stock options. Shares of Class A common stock issued under the 2017 Plan may be authorized but unissued shares, shares purchased on the open market or treasury shares.

If an award under the 2017 Plan expires, lapses or is terminated, exchanged for cash, surrendered, repurchased, canceled without having been fully exercised or forfeited, any unused shares subject to the award will again be available for new grants under the 2017 Plan. Awards granted under the 2017 Plan in substitution for any options or other stock or stock-based awards granted by an entity before the entity's merger or consolidation with us or our acquisition of the entity's property or stock will not reduce the shares of Class A common stock available for grant under the 2017 Plan, but will count against the maximum number of shares of Class A common stock that may be issued upon the exercise of incentive stock options.

In addition, the maximum aggregate grant date fair value as determined in accordance with FASB ASC Topic 718 (or any successor thereto), of awards granted to any non-employee director for services as a director pursuant to the 2017 Plan during any fiscal year may not exceed \$ _____ (or, in the fiscal year of any director's initial service, \$ _____). The plan administrator may, however, make exceptions to such limit on director compensation in extraordinary circumstances, subject to the limitations in the 2017 Plan.

Awards. The 2017 Plan provides for the grant of stock options, including incentive stock options ("ISOs") and nonqualified stock options ("NSOs"), stock appreciation rights ("SARs"), restricted stock, dividend equivalents, restricted stock units, ("RSUs"), and other stock or cash based awards. Certain awards under the 2017 Plan may constitute or provide for payment of "nonqualified deferred compensation" under Section 409A of the Code. All awards under the 2017 Plan will be set forth in award agreements, which will detail the terms and conditions of awards, including any applicable vesting and payment terms and post-termination exercise limitations. A brief description of each award type follows.

- *Stock Options and SARs.* Stock options provide for the purchase of shares of our Class A common stock in the future at an exercise price set on the grant date. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding period and other requirements of the Code are satisfied. SARs entitle their holder, upon exercise, to receive from us an amount equal to the appreciation of the shares subject to the award between the grant date and the exercise date. The plan administrator will determine the number of shares of Class A common stock covered by each option and SAR, the exercise price of each option and SAR and the conditions and limitations applicable to the exercise of each option and SAR. The exercise price of a stock option or SAR will not be less than 100% of the fair market value of the underlying share on the grant date (or 110% in the case of ISOs granted to certain significant stockholders), except with respect to certain substitute awards granted in connection with a corporate transaction. The term of a stock option or SAR may not be longer than ten years (or five years in the case of ISOs granted to certain significant stockholders). The maximum aggregate number of shares of Class A common stock with respect to one or more options or SARs that may be granted to any one person during any fiscal year of the company will be _____.
- *Restricted Stock and RSUs.* Restricted stock is an award of nontransferable shares of our Class A common stock that remain forfeitable unless and until specified conditions are met and which may be

subject to a purchase price. RSUs are contractual promises to deliver shares of our Class A common stock in the future, which may also remain forfeitable unless and until specified conditions are met and may be accompanied by the right to receive the equivalent value of dividends paid on shares of our Class A common stock prior to the delivery of the underlying shares. The plan administrator may provide that the delivery of the shares of Class A common stock underlying RSUs will be deferred on a mandatory basis or at the election of the participant. The terms and conditions applicable to restricted stock and RSUs will be determined by the plan administrator, subject to the conditions and limitations contained in the 2017 Plan.

- *Other Stock or Cash Based Awards.* Other stock or cash based awards are awards of cash, fully vested shares of our Class A common stock and other awards valued wholly or partially by referring to, or otherwise based on, shares of our Class A common stock or other property. Other stock or cash based awards may be granted to participants and may also be available as a payment form in the settlement of other awards, as standalone payments and as payment in lieu of compensation to which a participant is otherwise entitled. The plan administrator will determine the terms and conditions of other stock or cash based awards, which may include any purchase price, performance goal, transfer restrictions and vesting conditions.

Performance Criteria. The plan administrator may select performance criteria for an award to establish performance goals for a performance period. Performance criteria under the 2017 Plan may include, but are not limited to, the following: net earnings or losses (either before or after one or more of interest, taxes, depreciation, amortization, and non-cash equity-based compensation expense); gross or net sales or revenue or sales or revenue growth; net income (either before or after taxes) or adjusted net income; profits (including but not limited to gross profits, net profits, profit growth, net operation profit or economic profit), profit return ratios or operating margin; budget or operating earnings (either before or after taxes or before or after allocation of corporate overhead and bonus); cash flow (including operating cash flow and free cash flow or cash flow return on capital); return on assets; return on capital or invested capital; cost of capital; return on stockholders' equity; total stockholder return; return on sales; costs, reductions in costs and cost control measures; expenses; working capital; earnings or loss per share; adjusted earnings or loss per share; price per share or dividends per share (or appreciation in or maintenance of such price or dividends); regulatory achievements or compliance; implementation, completion or attainment of objectives relating to research, development, regulatory, commercial, or strategic milestones or developments; market share; economic value or economic value added models; division, group or corporate financial goals; customer satisfaction/growth; customer service; employee satisfaction; recruitment and maintenance of personnel; human resources management; supervision of litigation and other legal matters; strategic partnerships and transactions; financial ratios (including those measuring liquidity, activity, profitability or leverage); debt levels or reductions; sales-related goals; financing and other capital raising transactions; cash on hand; acquisition activity; investment sourcing activity; and marketing initiatives, any of which may be measured in absolute terms or as compared to any incremental increase or decrease. Such performance goals also may be based solely by reference to the company's performance or the performance of a subsidiary, division, business segment or business unit of the company or a subsidiary, or based upon performance relative to performance of other companies or upon comparisons of any of the indicators of performance relative to performance of other companies. When determining performance goals, the plan administrator may provide for exclusion of the impact of an event or occurrence which the plan administrator determines should appropriately be excluded, including, without limitation, non-recurring charges or events, acquisitions or divestitures, changes in the corporate or capital structure, events unrelated to the business or outside of the control of management, foreign exchange considerations, and legal, regulatory, tax or accounting changes.

Certain Transactions. In connection with certain corporate transactions and events affecting our Class A common stock, including a change in control, or change in any applicable laws or accounting principles, the plan administrator has broad discretion to take action under the 2017 Plan to prevent the dilution or enlargement of intended benefits, facilitate the transaction or event or give effect to the change in applicable laws or accounting

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principles. This includes canceling awards for cash or property, accelerating the vesting of awards, providing for the assumption or substitution of awards by a successor entity, adjusting the number and type of shares subject to outstanding awards and/or with respect to which awards may be granted under the 2017 Plan and replacing or terminating awards under the 2017 Plan. In addition, in the event of certain non-reciprocal transactions with our stockholders, the plan administrator will make equitable adjustments to the 2017 Plan and outstanding awards as it deems appropriate to reflect the transaction.

Plan Amendment and Termination. Our board of directors may amend or terminate the 2017 Plan at any time; however, no amendment, other than an amendment that increases the number of shares available under the 2017 Plan, may materially and adversely affect an award outstanding under the 2017 Plan without the consent of the affected participant and stockholder approval will be obtained for any amendment to the extent necessary to comply with applicable laws. Further, the plan administrator can, without the approval of our stockholders, amend any outstanding stock option or SAR to reduce its price per share. The 2017 Plan will remain in effect until the tenth anniversary of its effective date, unless earlier terminated by our board of directors. No awards may be granted under the 2017 Plan after its termination.

Foreign Participants, Claw-Back Provisions, Transferability and Participant Payments. The plan administrator may modify awards granted to participants who are foreign nationals or employed outside the United States or establish subplans or procedures to address differences in laws, rules, regulations or customs of such foreign jurisdictions. All awards will be subject to any company claw-back policy as set forth in such claw-back policy or the applicable award agreement. Except as the plan administrator may determine or provide in an award agreement, awards under the 2017 Plan are generally non-transferrable, except by will or the laws of descent and distribution, or, subject to the plan administrator's consent, pursuant to a domestic relations order, and are generally exercisable only by the participant. With regard to tax withholding obligations arising in connection with awards under the 2017 Plan, and exercise price obligations arising in connection with the exercise of stock options under the 2017 Plan, the plan administrator may, in its discretion, accept cash, wire transfer or check, shares of our common stock that meet specified conditions, a promissory note, a "market sell order," such other consideration as the plan administrator deems suitable or any combination of the foregoing.

2010 Equity Compensation Plan

Our board of directors and stockholders have approved our 2010 Equity Compensation Plan (the "2010 Plan"), under which we may grant stock options and other stock-based awards to employees, directors and consultants of our company or its affiliates. As of June 30, 2017, we reserved a total of 1,336,510 shares of our Class A common stock for issuance under the 2010 Plan.

Following the effectiveness of the 2017 Plan, we will not make any further grants under the 2010 Plan. However, the 2010 Plan will continue to govern the terms and conditions of the outstanding awards granted under it. As discussed above, we anticipate that shares of our Class A common stock subject to awards granted under the 2010 Plan that are forfeited, lapse unexercised or are settled in cash and which following the effective date of the 2017 Plan are not issued under the 2010 Plan will be available for issuance under the 2017 Plan.

Administration

Our board of directors administers the 2010 Plan and has the authority to determine recipients of awards and the terms of awards granted under the 2010 Plan, to interpret the 2010 Plan and awards outstanding thereunder, and to make changes to awards outstanding under the 2010 Plan. The board of directors may delegate its authority under the 2010 Plan to a committee.

Types of Awards

The 2010 Plan provides for the grant of non-qualified and incentive stock options, restricted stock and other stock-based awards to employees, officers, directors, consultants and other service providers of our company. As

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of the date of this prospectus, only awards of incentive stock options and non-qualified stock options are outstanding under the 2010 Plan.

Certain Transactions

If certain changes are made in, or events occur with respect to, our Class A common stock, the 2010 Plan and outstanding awards will be appropriately adjusted in the class, number and, as applicable, exercise price of securities as determined by the 2010 Plan administrator. In the event of certain corporate transactions of our company, including a consolidation, merger, or a liquidation, the 2010 Plan administrator may make equitable adjustments in the class, number, terms and conditions, and, as applicable, exercise price of securities of outstanding awards.

Amendment and Termination

Our board of directors, at any time and from time to time, may amend or terminate the 2010 Plan or any portion thereof from time to time, provided that no amendment or discontinuance of the 2010 Plan or any provision thereof shall, without the written consent of the participant, adversely affect (as determined by the 2010 Plan administrator) any award previously granted to such participant under the 2010 Plan. Furthermore, no amendment, without approval by our stockholders, shall alter the group of persons eligible to participate in the 2010 Plan, increase the maximum number of shares available for issuance pursuant to awards granted under the 2010 Plan, extend the period during which incentive stock options may be granted beyond the date that is 10 years following the effective date of the 2010 Plan, limit or restrict the powers of the 2010 Plan administrator with respect to the administration of the plan, change the eligibility of who may be granted incentive stock options or increase the limit or value of shares for which an eligible participant may be granted an incentive stock option, materially increase the benefits accruing to the participants under the 2010 Plan or change any provisions of the 2010 Plan related to amending or terminating the 2010 Plan.

2001 Stock Option Plan

Our board of directors and stockholders have approved our 2001 Stock Option Plan (the “2001 Plan”), under which we may grant stock options (both non-qualified and incentive stock options) to purchase shares of our Class B common stock to employees, directors and consultants of our company or its affiliates. Following the effectiveness of the 2010 Plan, we did not make any further grants under the 2001 Plan. However, the 2001 Plan will continue to govern the terms and conditions of the outstanding awards granted under it.

Administration

Our board of directors administers the 2001 Plan and has the authority to determine recipients of awards and the terms of awards granted under the 2001 Plan, to interpret the 2001 Plan and awards outstanding thereunder, and to make changes to awards outstanding under the 2001 Plan. The board of directors may delegate its authority under the 2001 Plan to a committee.

Certain Transactions

If certain changes are made in, or events occur with respect to, our Class B common stock, the 2001 Plan and outstanding awards will be appropriately adjusted in the class, number and, as applicable, exercise price of securities to the extent that the 2001 Plan administrator determines, in good faith, that such an adjustment is necessary or appropriate.

Amendment and Termination

We may, at any time, terminate the 2001 Plan or make such changes in or additions to the 2001 Plan as we deem advisable without further action on the part of our stockholders, provided that no such termination or

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amendment shall adversely affect or impair any then-outstanding option without the consent of such holder and provided further that any increase in the number of shares of stock covered by the 2001 Plan shall be subject to the approval of our stockholders.

Director Compensation

Our or our subsidiaries' officers, employees, consultants or advisors who also serve as directors do not receive additional compensation for their service as directors. Our directors who are not our or our subsidiaries' officers, employees, consultants or advisors, who we refer to as our non-employee directors, will receive cash and equity-based compensation for their services as directors.

The following table sets forth in summary form information concerning the compensation that we paid or awarded during the year ended December 31, 2016 to each of our non-employee directors:

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)</u>	<u>Total (\$)</u>
Brian Bailey(1)	\$ 120,000	\$120,000

(1) Amounts paid in respect of Mr. Bailey's service as a director were paid to Carmichael Partners, a private investment firm based in Charlotte, North Carolina.

Prior to the pricing of this offering, our Board of Directors will approve the initial terms of our non-employee director compensation program, which is expected to consist of the following:

- an annual retainer of \$50,000;
- an additional annual retainer of \$5,000 for service on the audit committee or \$10,000 for service as the chair; and
- an additional annual retainer of \$2,500 for service on the compensation committee or \$5,000 for service as the chair.
- an annual equity-based award granted under our 2017 Plan, having a value as of the grant date of approximately \$75,000.

Non-employee directors will also receive reimbursement for out-of-pocket expenses associated with attending board or committee meetings and director and officer liability insurance coverage. Each director will be fully indemnified by us for actions associated with being a director to the fullest extent permitted under Delaware law.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Our Board of Directors expects to adopt a written statement of policy, effective upon completion of this offering, for the evaluation of and the approval, disapproval and monitoring of transactions involving us and “related persons.” For the purposes of the policy, “related persons” will include our executive officers, directors and director nominees or their immediate family members, or shareholders owning five percent or more of our outstanding common shares and their immediate family members.

Transactions with Republic Wireless

Reorganization Agreement

In connection with the Spin-Off, we and Republic Wireless entered into a Reorganization Agreement (the “Reorganization Agreement”) to provide for, among other things, the principal corporate transactions (including the internal restructuring) required to effect the Spin-Off, certain conditions to the Spin-Off and provisions governing the relationship between us and Republic Wireless with respect to and resulting from the Spin-Off.

The Reorganization Agreement provides for mutual indemnification obligations, which are designed to make Republic Wireless financially responsible for substantially all of the liabilities that existed relating to the Republic Wireless business at the time of the Spin-Off together with certain other specified liabilities, as well as for all liabilities incurred by Republic Wireless after the Spin-Off, and to make us financially responsible for all potential liabilities of Republic Wireless which are not related to the Republic Wireless business, including, for example, any liabilities arising as a result of Republic Wireless having been a division of Bandwidth, together with certain other specified liabilities. These indemnification obligations exclude any matters relating to taxes, employee matters and other intercompany agreements. For a description of the allocation of tax-related obligations, please see “—Tax Sharing Agreement” below.

In addition, the Reorganization Agreement provided for each of Republic Wireless and us to preserve the confidentiality of all confidential or proprietary information of the other party for five years following the Spin-Off, subject to customary exceptions, including disclosures required by law, court order or government regulation.

Tax Sharing Agreement

We entered into a Tax Sharing Agreement with Republic Wireless that governs our and Republic Wireless’ respective rights, responsibilities and obligations with respect to taxes and tax benefits, the filing of tax returns, the control of audits and other tax matters. References in this summary (i) to the terms “tax” or “taxes” mean U.S. federal, state, local and foreign taxes as well as any interest, penalties, additions to tax or additional amounts in respect of such taxes and (ii) to the term “Tax-related losses” refer to losses arising from the failure of the Spin-Off and related restructuring transactions to be tax-free.

Under the Tax Sharing Agreement, except as described below, (i) we are allocated all taxes attributable to Bandwidth (excluding Republic Wireless) and all taxes attributable to Republic Wireless for a pre-Spin-Off period, that are reported on any consolidated, combined or unitary tax return, and (ii) each of Bandwidth and Republic Wireless is allocated all taxes attributable to it that are reported on any tax return (including any consolidated, combined or unitary tax return) that includes only itself or any of its respective affiliates and subsidiaries. Special rules apply, however, as follows:

- We are allocated any taxes and Tax-related losses that result from the Spin-Off and related restructuring transactions, except that Republic Wireless is allocated any such taxes or Tax-related losses that (i) result primarily from, individually or in the aggregate, a breach by Republic Wireless of any of its covenants relating to the Spin-Off and related restructuring transactions, or (ii) result from the application of Section 355(e) of the Code to the Spin-Off as a result of the treatment of the Spin-Off as part of a plan (or series of related transactions) pursuant to which one or more persons acquire, directly or indirectly, a 50% or greater interest in the stock of Republic Wireless; and

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- We and Republic Wireless are each allocated 50% of any transfer taxes arising from the Spin-Off and related restructuring transactions.

We and Republic Wireless are restricted by certain covenants related to the Spin-Off and related restructuring transactions. These restrictive covenants require that neither we, Republic Wireless nor any member of our or their respective group take, or fail to take, any action if such action, or failure to act:

- would be inconsistent with or prohibit certain restructuring transactions related to the Spin-Off from qualifying for tax-free treatment for U.S. federal income tax purposes to us and our subsidiaries;
- would be inconsistent with or prohibit the Spin-Off from qualifying as a tax-free transaction under Section 355, Section 368(a)(1)(D) and related provisions of the Code to us, our subsidiaries and our stockholders; or
- would be inconsistent with, or otherwise cause any person to be in breach of, any representation, covenant, or material statement made in connection with the tax opinion delivered to us relating to the qualification of the Spin-Off as a tax-free transaction under Section 355, Section 368(a)(1)(D) and related provisions of the Code.

Further, each party is restricted from taking any position for tax purposes that is inconsistent with the tax opinion obtained in connection with the Spin-Off.

The parties must indemnify each other for taxes and losses allocated to them under the Tax Sharing Agreement and for taxes and losses arising from a breach by them of their respective covenants and obligations under the Tax Sharing Agreement.

Transition Services Agreements

In connection with the Spin-Off, we and Republic Wireless entered into the Transition Services Agreements, pursuant to which we provide Republic Wireless with specified services, including:

- insurance administration;
- other services typically performed by our legal, tax, accounting, and internal audit departments; and
- such other services as we may obtain from our officers, employees and consultants in the management of our operations that Republic Wireless may from time to time request or require.

In addition, we provide to Republic Wireless certain technical and information technology services (including management information systems, computer, data storage, and network services).

In addition, Republic Wireless provides us with specified services, including insurance administration support, billing and collections support, certain customer support related to high customer impacting events associated with our Phonebooth service, other technical support and certain legal services related to intellectual property.

Republic Wireless pay us, and we pay Republic Wireless, an agreed-upon services fee under the Transition Services Agreements. We and Republic Wireless each also reimburse the other for direct out-of-pocket costs incurred by the other party for third-party services. We and Republic Wireless evaluate all charges for reasonableness semi-annually and make adjustments to these charges as we mutually agree. For the six months ended June 30, 2017, we paid Republic Wireless \$0.1 million and Republic Wireless paid us \$0.5 million under the Transition Services Agreement. Prior to January 1, 2017, no payments were made or due.

The Transition Services Agreements continue in effect until the close of business on the second anniversary of the Spin-Off, unless earlier terminated (1) by Republic Wireless at any time on at least 30 days' prior written

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notice, (2) by us upon written notice to Republic Wireless following a change in control or certain bankruptcy or insolvency-related events affecting Republic Wireless or (3) by Republic Wireless, upon written notice to us, following certain changes in control of us or our being the subject of certain bankruptcy or insolvency—related events. However, Republic Wireless’ obligation to provide certain customer support related to high customer-impacting events associated with our Phonebooth service continues in effect only until the close of business on the first anniversary of the Spin-Off.

Facilities Sharing Agreement

In connection with the Spin-Off, we entered into a Facilities Sharing Agreement (the “Facilities Sharing Agreement”) with Republic Wireless pursuant to which Republic Wireless shares our office facilities located at 940 Main Campus Drive, Raleigh, North Carolina through May 2022. Republic Wireless pays a sharing fee for use of the office facilities based on the amounts paid by us to our landlord and sublandlord, respectively, and an estimate of the usage of the office facilities by or on behalf of Republic Wireless. For the six months ended June 30, 2017, Republic Wireless paid us \$0.4 million pursuant to the Facilities Sharing Agreement. The Facilities Sharing Agreement will continue in effect until May 2022, unless earlier terminated (1) by us upon written notice to Republic Wireless following a default by Republic Wireless of any of its material obligations under the Facilities Sharing Agreement, which default remains unremedied for 30 days after written notice of such default is provided, (2) by Republic Wireless upon written notice to us, following certain changes in control of us or our being the subject of certain bankruptcy or insolvency-related events or (3) by us upon written notice to Republic Wireless, following certain changes in control of Republic Wireless or Republic Wireless being the subject of certain bankruptcy or insolvency-related events.

Employee Matters Agreement

In connection with the Spin-Off, we entered into an Employee Matters Agreement (the “Employee Matters Agreement”) with Republic Wireless. The Employee Matters Agreement addresses customary matters associated with the transition of employees from employment with us to employment with Republic Wireless, including health, welfare and other similar benefits provided to such employees prior to and following the Spin-Off.

Master Services Agreement

In connection with the Spin-Off, we entered into a Master Services Agreement (the “Master Services Agreement”) with Republic Wireless pursuant to which, on a month-to-month basis, we provide Republic Wireless with certain telecommunications services. These telecommunications services include inbound calling, outbound calling, text messaging and 911 services. The Master Services Agreement, as well as the related service order form, rate sheet, and terms and conditions each is consistent with the terms and conditions we make available to our other customers and prospective customers. We provide Republic Wireless with these telecommunications services pursuant to the Master Services Agreement at fair market value. For the six months ended June 30, 2017, Republic Wireless paid us \$1.1 million pursuant to the Master Services Agreement. Republic Wireless can choose to terminate the Master Services Agreement at any time.

Consulting Services Agreement

On February 22, 2010, we entered into a consulting agreement with Carmichael Investment Partners, LLC (“Carmichael”), pursuant to which we pay Carmichael a monthly fee of \$10,000 for consulting and strategic advisory services. This agreement is expected to be terminated in connection with this offering.

Bowen-Carmichael Letter Agreement

We are party to a letter agreement, dated as of November 23, 2016, by and among James A. Bowen, Susan Bowen and Carmichael. The letter agreement gives each of Mr. Bowen, Ms. Bowen and Carmichael the right to

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purchase a number of shares equal to his, her or its pro rata portion of any shares issued by us upon the exercise of certain options previously granted to our employees, directors, officers and consultants. The applicable pro rata portion is determined as of the date of exercise of any applicable option and equals the percentage of our outstanding capital stock owned by Mr. Bowen, Ms. Bowen or Carmichael. The letter agreement will expire upon the completion of this offering.

Investors' Rights Agreement

We are party to an Investors' Rights Agreement, dated as of February 22, 2011 (as amended as of September 21, 2012 and November 23, 2016), 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 Carmichael, entities affiliated with James Bowen and Susan Bowen, and certain non-executive employees. See the section titled "Description of Capital Stock—Registration Rights." Additionally, the Investors' Rights Agreement provides that the stockholders party thereto have a right of first refusal for any proposed offering of securities in an amount up to such stockholder's then-current ownership percentage, in accordance with the terms of the agreement. The right of first refusal will terminate immediately prior to the completion of this offering.

Buy-Sell Agreements

Substantially all of our stockholders who are not parties to the Investors' Rights Agreement are parties to buy-sell agreements by and between such stockholder and us. Each buy-sell agreement provides, among other things, that such stockholder agrees to vote all of its shares of our capital stock in the manner described therein with respect to the size and composition of our board of directors. These agreements will terminate upon the closing of this offering.

Voting Agreement

We are party to a voting agreement, dated as of February 22, 2011, which provides, among other things, that each of the parties thereto agrees to vote all of the shares of our capital stock they hold in the manner described therein with respect to the size and composition of our board of directors. This agreement will terminate upon the closing of this offering.

Conversion Lock-up Agreements

In connection with this offering, the Company entered into separate agreements (the "Conversion Lock-up Agreements") with certain Class B stockholders (the "Key Holders"), pursuant to which each Key Holder agreed not to take any action that would cause certain shares of Class B common stock owned by the Key Holder to convert to Class A common stock on or before December 1, 2018.

Indemnification Agreements

Our second amended and restated certificate of incorporation provides that we will indemnify our directors and officers to the fullest extent permitted by law. In addition, we expect to enter into indemnification agreements with all of our directors and executive officers prior to the completion of this offering.

Executive Compensation and Employment Arrangements

For a description of the compensation arrangements we have with our executive officers, please read the section titled "Executive Compensation."

Directed Share Program

The underwriters have reserved for sale, at the initial public offering price, up to _____ shares of Class A common stock, or approximately 2.5% of the shares being offered by us pursuant to this prospectus, for sale to our directors, officers and employees and certain other persons associated with us, as designated by us. The directed share program will not limit the ability of our directors, officers and their family members, or holders of more than 5% of our capital stock, to purchase more than \$120,000 in value of our Class A common stock. We do not currently know the extent to which these related persons will participate in our directed share program, if at all, or the extent to which they will purchase more than \$120,000 in value of our Class A common stock.

PRINCIPAL AND SELLING STOCKHOLDERS

The following table sets forth, as of October 18, 2017, information regarding beneficial ownership of our capital stock by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our Class A common stock or Class B common stock;
- each of our named executive officers;
- each of our directors;
- all of our executive officers and directors as a group; and
- all of our other selling stockholders.

Beneficial ownership is determined according to the rules of the SEC and generally means that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power of that security, including options that are currently exercisable or exercisable within 60 days of October 18, 2017. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons named in the table below have sole voting and investment power with respect to all shares of Class B common stock shown that they beneficially own, subject to community property laws where applicable. The information does not necessarily indicate beneficial ownership for any other purpose, including for purposes of Sections 13(d) and 13(g) of the Securities Act of 1933, as amended (the “Securities Act”).

Our calculation of the percentage of beneficial ownership prior to this offering gives effect to the common stock split and the Pre-IPO Reorganization and is based on 34,840 shares of our Class A common stock and 11,811,454 shares of our Class B common stock outstanding as of October 18, 2017. We have based our calculation of the percentage of beneficial ownership after this offering, and assuming completion of the common stock split and the Pre-IPO Reorganization, on _____ shares of our Class A common stock and _____ shares of our Class B common stock outstanding immediately after the completion of this offering (assuming no exercise of the underwriters’ over-allotment option). The selling stockholders listed in the table below are not selling any shares other than in connection with the underwriters’ option to purchase additional shares.

Common stock subject to stock options currently exercisable or exercisable within 60 days of October 18, 2017, are deemed to be outstanding for purposes of computing the percentage ownership of the person holding these options and the percentage ownership of any group of which the holder is a member but are not deemed outstanding for computing the percentage of any other person.

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Unless otherwise noted below, the address for each of the stockholders in the table below is c/o Bandwidth Inc., 900 Main Campus Drive, Suite 500, Raleigh, North Carolina 27606.

Name of Beneficial Owner	Percentage of Shares Beneficially Owned ⁽¹⁾						Percentage of Total Voting Power ⁽¹⁾							
	Number of Shares Beneficially Owned ⁽¹⁾		Before the Offering		After the Offering Excluding Option to Purchase Additional Shares		After the Offering Including Full Exercise of Option to Purchase Additional Shares		Before the Offering		After the Offering Excluding Option to Purchase Additional Shares		After the Offering Including Full Exercise of Option to Purchase Additional Shares	
	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B	Class A	Class B
Executive Officers and Directors:														
David A. Morken ⁽²⁾	337,500	2,747,983	9.7%	19.6%	%	%	%	%	%	%	%	%	%	%
John C. Murdock ⁽³⁾	340,000	379,312	9.8%	2.7%	%	%	%	%	%	%	%	%	%	%
Jeff Hoffman ⁽⁴⁾	140,727	0	4.1%	*	%	%	%	%	%	%	%	%	%	%
W. Christopher Matton ⁽⁵⁾	162,500	2,437	4.7%	*	%	%	%	%	%	%	%	%	%	%
Henry R. Kaestner ⁽⁶⁾	0	2,393,764	*	17.1%	%	%	%	%	%	%	%	%	%	%
Brian D. Bailey ⁽⁷⁾	31,250	2,090,311	*	14.9%	%	%	%	%	%	%	%	%	%	%
Douglas A. Suriano	0	0	*	*	%	%	%	%	%	%	%	%	%	%
All executive officers and directors as a group	1,011,977	7,584,555	29.2%	54.2%	%	%	%	%	%	%	%	%	%	%
5% Stockholders:														
Carmichael Investment Partners LLC ⁽⁸⁾														
Partners LLC ⁽⁸⁾	31,250	2,090,311	*	14.9%	%	%	%	%	%	%	%	%	%	%
James Bowen ⁽⁹⁾	0	1,806,373	*	12.9%	%	%	%	%	%	%	%	%	%	%
Susan Bowen ⁽¹⁰⁾	0	1,100,095	*	7.9%	%	%	%	%	%	%	%	%	%	%
Other Selling Stockholders:														
All Other Selling Stockholders														
			%	%	%	%	%	%	%	%	%	%	%	%

* Denotes less than 1.0% of beneficial ownership.

(1) Calculated after giving effect to the common stock split and the Pre-IPO Reorganization.

(2) Consists of (i) 2,297,983 shares of Class B common stock held of record by Mr. Morken, (ii) 200,000 shares of Class B common stock held of record by Mr. Morken, as trustee of the David Morken 2014 Charitable Remainder Unitrust, (iii) 250,000 shares of Class B common stock held of record by Mr. Morken, as trustee of the 2015 Chrishelle Dawn Morken Irrevocable GST Trust, and (iv) 337,500 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of October 18, 2017.

(3) Consists of (i) 92,382 shares of Class B common stock held of record by Mr. Murdock, (ii) 39,002 shares of Class B common stock held of record by Mr. Murdock, as trustee of the John C. Murdock Family Line Trust, (iii) 52,007 shares of Class B common stock held of record by Mr. Murdock, as trustee of Murdock Trust 'D' u/a dated May 16, 2005, as amended, (iv) 340,000 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of October 18, 2017, (v) 153,262 shares of Class B common stock subject to outstanding options that are exercisable within 60 days of October 18, 2017, (vi) 13,407 shares of Class B common stock subject to warrants that are exercisable within 60 days of October 18, 2017 and (vii) 29,252 shares of Class B common stock that Mr. Murdock has the option to purchase from Mr. Morken that are exercisable within 60 days of October 18, 2017.

(4) Consists of 140,727 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of October 18, 2017.

(5) Consists of (i) 162,500 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of October 18, 2017 and (ii) 2,437 shares of Class B common stock subject to warrants that are exercisable within 60 days of October 18, 2017.

(6) Consists of (i) 2,385,262 shares of Class B common stock held of record by Mr. Kaestner, (ii) 1,417 shares of Class B common stock held of record by Mr. Kaestner, as custodian for Ford Evans Young IV, (iii) 1,417 shares of Class B common stock held of record by Mr. Kaestner, as custodian for Caroline Young, (iv) 1,417 shares of Class B common stock held of record by Mr. Kaestner, as custodian for Kate Young, (v) 1,417 shares of Class B common stock held of record by Mr. Kaestner, as custodian for Alice Young, (vi) 1,417 shares of Class B common stock held of record by Mr. Kaestner, as custodian for Eloise Young, and (vii) 1,417 shares of Class B common stock held of record by Mr. Kaestner, as custodian for Henry Young.

(7) Consists of shares held by the Carmichael Entities identified in Note (8). Brian D. Bailey and Kevin J. Martin are the managing partners of Carmichael Bandwidth LLC and Carmichael Partners LLC and share voting and dispositive power with respect to the shares held by the Carmichael Entities and Carmichael Partners LLC.

(8) Consists of (i) 710,000 shares of Series A preferred stock held by Carmichael Investment Partners LLC ("CIP") that will be converted into 1,775,000 shares of Class B common stock prior to the pricing of this offering, (ii) 4,847 shares of Class B common stock held by CIP, (iii) 178,572 shares of Class B common stock held by Carmichael Investment Partners II, LLC ("CIP II"), (iv) 123,142 shares of Class B common stock held by Carmichael Investment Partners III, LLC ("CIP III") and, together with CIP and CIP II, the "Carmichael

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Entities"), (v) 8,750 shares of Class B common stock held by Carmichael Partners LLC and (vi) 31,250 shares of Class A common stock subject to outstanding options that are exercisable within 60 days of October 18, 2017, which are held personally by Kevin J. Martin, but the economic value of which will transfer to Carmichael Partners LLC. Carmichael Bandwidth LLC is the managing member of each of the Carmichael Entities. The address for each of the Carmichael Entities and Carmichael Partners LLC is c/o Carmichael Investment Partners LLC, 4725 Piedmont Row Drive, Suite 210, Charlotte, NC 28210.

- (9) Consists of (i) 1,095,177 shares of Class B common stock held of record by Mr. Bowen, (ii) 4,927 shares of Class B common stock subject to outstanding warrants that are exercisable within 60 days of October 18, 2017, (iii) 178,572 shares of Class B common stock held by First Trust Capital Partners, LLC, (iv) 295,100 shares of Class B common stock held by FT Bandwidth Ventures, LLC and (v) 232,597 shares of Class B common stock held by FT Bandwidth Ventures II, LLC. The address for each of First Trust Capital Partners, LLC, FT Bandwidth Ventures, LLC and FT Bandwidth Ventures II, LLC is 120 East Liberty Drive, Suite 400, Wheaton, IL 60187.
- (10) Consists of (i) 1,095,175 shares of Class B common stock held of record by Ms. Bowen and (ii) 4,920 shares of Class B common stock subject to outstanding warrants that are exercisable within 60 days of October 18, 2017.

DESCRIPTION OF CAPITAL STOCK

General

As of the closing of this offering, after giving effect to the Pre-IPO Reorganization, our authorized capital stock will consist of _____ shares of common stock, par value \$0.001 per share, and _____ shares of preferred stock, par value \$0.001 per share. Our common stock will be divided into two classes, Class A common stock and Class B common stock. Following this offering, our authorized Class A common stock will consist of _____ shares and our authorized Class B common stock will consist of _____ shares.

The following description of our capital stock and provisions of our second amended and restated certificate of incorporation and second amended and restated bylaws are summaries and are qualified by reference to the second amended and restated certificate of incorporation and second amended and restated bylaws that will become effective prior to the pricing of this offering. Copies of these documents will be filed with the Securities and Exchange Commission as exhibits to our registration statement, of which this prospectus forms a part. The description of our capital stock reflects changes to our capital structure that will occur upon the closing of this offering.

Class A Common Stock and Class B Common Stock

As of September 30, 2017, there were (i) _____ shares of our Class A common stock outstanding and held of record by _____ stockholders and (ii) _____ shares of Class B common stock outstanding and held of record by _____ stockholders, assuming completion of the Pre-IPO Reorganization prior to the pricing of this offering.

Voting Rights

Holders of our Class A common stock and Class B common stock have identical rights, provided that, except as otherwise expressly provided in our second amended and restated certificate of incorporation or required by applicable law, on any matter that is submitted to a vote of our stockholders, holders of our Class A common stock are entitled to one vote per share of Class A common stock and holders of our Class B common stock are entitled to ten votes per share of Class B common stock. Holders of shares of Class A common stock and Class B common stock will vote together as a single class on all matters (including the election of directors) submitted to a vote of stockholders, except that there will be a separate vote of our Class A common stock and Class B common stock in the following circumstances:

- if we were to seek to amend our second amended and restated certificate of incorporation to increase or decrease the par value of a class of our common stock, then that class would be required to vote separately to approve the proposed amendment; and
- if we were to seek to amend our second amended and restated certificate of incorporation in a manner that alters or changes the powers, preferences or special rights of a class of our common stock in a manner that affected its holders adversely, then that class would be required to vote separately to approve the proposed amendment.

Upon the effectiveness of our second amended and restated certificate of incorporation prior to the pricing of this offering, we may not increase or decrease the authorized number of shares of Class A common stock or Class B common stock without the affirmative vote of the holders of a majority of the combined voting power of the outstanding shares of Class A common stock and Class B common stock, voting together as a single class. In addition, we may not issue any shares of Class B common stock, unless that issuance is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class B common stock.

We have not provided for cumulative voting for the election of directors in our second amended and restated certificate of incorporation.

Economic Rights

Except as otherwise expressly provided in our second amended and restated certificate of incorporation or required by applicable law, shares of Class A common stock and Class B common stock will have the same rights and privileges and rank equally, share ratably and be identical in all respects as to all matters, including, without limitation, those described below.

Dividends. Any dividend or distributions paid or payable to the holders of shares of Class A common stock and Class B common stock shall be paid pro rata, on an equal priority, *pari passu* basis, unless different treatment of the shares of each such class is approved by the affirmative vote of the holders of a majority of the outstanding shares of the applicable class of stock treated adversely, voting separately as a class; provided, however, that if a dividend or distribution is paid in the form of Class A common stock or Class B common stock (or rights to acquire shares of Class A common stock or Class B common stock), then the holders of the Class A common stock shall receive Class A common stock (or rights to acquire shares of Class A common stock) and holders of Class B common stock shall receive Class B common stock (or rights to acquire shares of Class B common stock).

Liquidation. In the event of our liquidation, dissolution or winding-up, upon the completion of the distributions required with respect to any series of preferred stock that may then be outstanding, our remaining assets legally available for distribution to stockholders shall be distributed on an equal priority, pro rata basis to the holders of Class A common stock and Class B common stock.

Subdivisions and Combinations. If we subdivide or combine in any manner outstanding shares of Class A common stock or Class B common stock, then the outstanding shares of the other class will be subdivided or combined in the same proportion and manner, unless different treatment of the shares of each class is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and by the affirmative vote of the holders of a majority of the outstanding shares of Class B common stock, each voting separately as a class.

Change of Control Transaction. In connection with any change of control, the holders of Class A common stock and Class B common stock will be treated equally and identically with respect to shares of Class A common stock or Class B common stock owned by them, unless different treatment of the shares of each class is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A common stock and Class B common stock, each voting separately as a class.

Conversion

Each share of Class B common stock is convertible at any time at the option of the holder into one share of Class A common stock. In addition, each share of Class B common stock will convert automatically into one share of Class A common stock upon (a) any transfer, whether or not for value and whether voluntary or involuntary or by operation of law, except for certain transfers described in our second amended and restated certificate of incorporation, including, without limitation, certain transfers for tax and estate planning purposes, (b) the date specified by the affirmative vote of the holders of at least 66 2/3% of the outstanding shares of Class B common stock and (c) certain stockholders beneficially owning, directly or indirectly, in the aggregate less than 40% of the number of shares of Class B common stock held by such stockholders immediately following the closing of this offering.

Notwithstanding the above, no holder of shares of Class B common stock may convert such shares into shares of Class A common stock until the earlier of (a) our receipt of all regulatory approvals from the FCC and state public utility commissions and (b) 180 days after the date of the pricing of this offering.

Preferred Stock

Under the terms of our second amended and restated certificate of incorporation that will become effective prior to the pricing of this offering, our board of directors is authorized to direct us to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from seeking to acquire, a majority of our outstanding voting stock. Upon the closing of this offering, there will be no shares of preferred stock outstanding, and we have no present plans to issue any shares of preferred stock.

Options

As of September 30, 2017, we had outstanding options to purchase (i) an aggregate of 347,399 shares of our Class B common stock under our 2001 Plan, at a weighted-average exercise price of \$5.80 per share, (ii) an aggregate of 3,315,487 shares of our Class A common stock under our 2010 Plan, at a weighted-average exercise price of \$7.00 per share and (iii) zero shares of our Class A common stock under our 2017 Plan.

Warrants

As of September 30, 2017, warrants to purchase an aggregate of 64,691 shares of our Class B common stock at a weighted-average exercise price of \$2.31 were outstanding.

Restricted Stock Units

As of September 30, 2017, we had no restricted stock units outstanding under our 2010 Plan.

Registration Rights

We entered into an Investors' Rights Agreement with the holders of shares of our common stock issuable upon conversion of the shares of our Series A preferred stock and certain holders of our Old Class A common stock, which we refer to as registrable shares. Under the Investors' Rights Agreement, holders of registrable shares can demand that we file a registration statement and/or can request that their registrable shares be covered by a registration statement that we are otherwise filing, as described below.

Demand Registration Rights. At any time after 180 days after the closing of this offering, the holders of registrable shares entitled to demand registration rights may request that we register all or a portion of their registrable shares for sale under the Securities Act, so long as the request for such registration is for at least 25% of all registrable shares then outstanding (or a lesser percentage if the anticipated aggregate offering price would exceed \$10 million). We will effect the registration as requested unless, in the good faith judgment of our board of directors, such registration should be delayed. We may be required to effect two of these registrations. In addition, when we are eligible for the use of Form S-3, or any successor form, holders of registrable shares entitled to demand registration rights may make unlimited requests that we register all or a portion of their registrable shares for sale under the Securities Act on Form S-3, or any successor form, having an anticipated aggregate offering price, net of selling expenses, of at least \$3 million so long as the request for registration is for at least 20% of all registrable shares then outstanding.

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Incidental Registration Rights. In addition, if at any time after this offering we register any shares of our common stock, the holders of all registrable shares are entitled to notice of the registration and to include all or a portion of their registrable shares in the registration.

Other Provisions. In the event that any registration in which the holders of registrable shares participate pursuant to the Investors' Rights Agreement is an underwritten public offering, the number of registrable shares to be included may, in specified circumstances, be limited due to market conditions.

We will pay all registration expenses related to any demand or incidental registration, other than underwriting discounts, selling commissions and the fees and expenses of the selling stockholders' own counsel, other than the reasonable fees and disbursements of one counsel for the selling stockholders. Our Investors' Rights Agreement contains customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to them.

Anti-Takeover Provisions

Upon the closing of this offering, we will be subject to Section 203 of the Delaware General Corporation Law. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a "business combination" with any "interested stockholder" for three years following the date that the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our board of directors or unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger or consolidation involving us and the "interested stockholder" and the sale of more than 10% of our assets. In general, an "interested stockholder" is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

Removal of Directors

Our second amended and restated certificate of incorporation and our second amended and restated bylaws provide that a director may be removed only for cause and only by the affirmative vote of the holders of at least 66 2/3% of the votes that all of our stockholders would be entitled to cast in an annual election of directors. Any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

The limitations on the removal of directors and filling of vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

Super-Majority Voting

The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our second amended and restated bylaws may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least 66 2/3% of the votes that all of our stockholders would be entitled to cast in an annual election of directors. In addition, the affirmative vote of the holders of at least 66 2/3% of the votes which all our stockholders would be entitled to cast in an election of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our second amended and restated certificate of incorporation described in this paragraph and the prior two paragraphs.

Stockholder Action; Special Meeting of Stockholders

Our second amended and restated certificate of incorporation provides that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of such stockholders and may not be effected by any consent in writing by such stockholders. Our second amended and restated certificate of incorporation and our second amended and restated bylaws also provide that, except as otherwise required by law, special meetings of our stockholders can only be called by our chairman of the board, our Chief Executive Officer or our board of directors.

Exclusive Jurisdiction

Our amended and restated bylaws provide that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a claim of breach of fiduciary duty owed by any of our directors, officers, or other employees to us or to our stockholders, any action asserting a claim governed by the internal affairs doctrine or any action asserting a claim arising pursuant to the Delaware General Corporation Law.

Authorized but Unissued Shares

The authorized but unissued shares of our Class A common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing standards of the NASDAQ Global Select Market. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Transfer Agent and Registrar

The transfer agent and registrar for our Class A common stock will be American Stock Transfer & Trust Company, LLC.

Listing

We have applied to list our Class A common stock on the NASDAQ Global Select Market under the symbol "BAND".

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our Class A common stock, and we cannot predict the effect, if any, that market sales of shares of our Class A common stock or the availability of shares of our Class A common stock for sale will have on the market price of our Class A common stock prevailing from time to time. Future sales of our Class A common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares of Class A common stock will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our Class A common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

After giving effect to the Pre-IPO Reorganization, based on the number of shares outstanding as of September 30, 2017, upon the completion of this offering, _____ shares of Class A common stock (or _____ shares of Class A common stock if the underwriters exercise their option to purchase additional shares of Class A common stock in full) and _____ shares of Class B common stock will be outstanding. Of the outstanding shares, all the shares of Class A common stock sold in this offering will be freely transferrable without restriction or registration under the Securities Act, except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below.

The shares of Class B common stock outstanding as of September 30, 2017 will be restricted as a result of securities laws or lock-up agreements as described below. “Restricted securities” as defined under Rule 144 were issued and sold by us in reliance on exemptions from the registration requirements of the Securities Act. These shares of Class B common stock may be sold in the public market only if registered or pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act. Subject to the volume and other restrictions of Rule 144 or Rule 701, these shares will be available for sale in the public market as follows:

- _____ shares of Class B common stock will be immediately available for sale in the public market, following conversion to Class A common stock;
- beginning on the date of this prospectus, all _____ shares of Class A common stock sold in this offering will be immediately available for sale in the public market; and
- beginning 181 days after the date of this prospectus, subject to the Conversion Lock-up Agreements, the remainder of the outstanding shares of Class A common stock and _____ shares of Class B common stock will be eligible for sale in the public market from time to time thereafter, subject in some cases to the volume and other restrictions of Rule 144, as described below.

Lock-Up Agreements

All of our directors and executive officers and the holders of substantially all of our securities have entered or will enter into lock-up agreements under which they agree, subject to certain exceptions, not to sell, transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock without the prior written consent of Morgan Stanley & Co. LLC for a period of 180 days after the date of this prospectus, subject to possible extension under certain circumstances. Morgan Stanley & Co. LLC may, in its discretion, release any of the securities subject to the lock-up agreements with the underwriters at any time. These agreements are described in the section titled “Underwriters.”

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to the public company reporting requirements of Section 13 or Section 15(d) of the Exchange Act for at least 90 days, a person who is not deemed

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to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares of our Class A common stock proposed to be sold for at least six months is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares of Class A common stock proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares of Class A common stock without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares of our Class A common stock on behalf of our affiliates are entitled to sell upon expiration of the lock-up agreements described above, within any three-month period, a number of shares of Class A common stock that does not exceed the greater of:

- 1% of the number of shares of our Class A common stock then outstanding, which will equal approximately _____ shares immediately after this offering assuming no exercise of the underwriters' over-allotment option; and
- the average weekly trading volume of our Class A common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 by our affiliates or persons selling shares of our Class A common stock on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our capital stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required to wait until 90 days after the date of this prospectus before selling those shares pursuant to Rule 701. Moreover, substantially all Rule 701 shares are subject to lock-up agreements with the underwriters as described above and under the section titled "Underwriters" and will not become eligible for sale until the expiration of those agreements.

Registration Rights

The holders of approximately _____ shares of our outstanding capital stock, or their transferees, are entitled to certain rights with respect to the registration of those shares under the Securities Act. For a description of these registration rights, please see "Description of Capital Stock—Registration Rights." If these shares are registered, they will be freely tradable without restriction under the Securities Act, subject to the Rule 144 limitations applicable to affiliates, and a large number of shares may be sold into the public market.

Registration Statement on Form S-8

We intend to file a registration statement on Form S-8 under the Securities Act promptly after the completion of this offering to register shares of our Class A common stock subject to options and restricted stock units outstanding, as well as reserved for future issuance, under our equity compensation plans. The registration statement on Form S-8 is expected to become effective immediately upon filing, and shares of our Class A common stock covered by the registration statement will then become eligible for sale in the public market, subject to the Rule 144 limitations applicable to affiliates, vesting restrictions and any applicable market standoff agreements and lock-up agreements. See the section titled "Executive Compensation—Incentive Plans" for a description of our equity compensation plans.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF OUR CLASS A COMMON STOCK

The following is a summary of the material U.S. federal income tax consequences to non-U.S. holders (as defined below) of the acquisition, ownership and disposition of our Class A common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax consequences, and any applicable state, local or non-U.S. tax laws are not discussed. This discussion is based on the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the IRS, all as in effect as of the date of this offering. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a non-U.S. holder of our Class A common stock. No ruling has been or will be sought from the IRS with respect to the matters discussed below, and there can be no assurance that the IRS or a court will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our Class A common stock.

This discussion is limited to non-U.S. holders who purchase our Class A common stock issued pursuant to this offering and who hold such Class A common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the U.S. federal income tax consequences that may be relevant to a particular holder in light of such holder’s particular circumstances, including the impact of the Medicare contribution tax on net investment income. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules, including, without limitation, U.S. expatriates and former citizens or long-term residents of the United States, partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein), real estate investment trusts, regulated investment companies, “controlled foreign corporations,” “passive foreign investment companies,” corporations that accumulate earnings to avoid U.S. federal income tax, banks, financial institutions, investment funds, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-exempt organizations or governmental organizations, tax-qualified retirement plans, persons subject to the alternative minimum tax, persons that own, or have owned, actually or constructively, more than 5% of our common stock, persons deemed to sell our common stock under the constructive sale provisions of the Code, persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation, “qualified foreign pension funds” as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds, and persons holding our common stock as part of a hedge, straddle, or other risk reduction strategy or as part of a conversion transaction or other integrated investment.

If an entity treated as a partnership for U.S. federal income tax purposes holds our Class A common stock, the tax treatment of an owner in such entity will depend on the status of such owner, the activities of such entity and certain determinations made at the owner level. Accordingly, entities treated as partnerships for U.S. federal income tax purposes holding our Class A common stock and the owners in such entities should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP AND DISPOSITION OF OUR CLASS A COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Definition of Non-U.S. Holder

For purposes of this discussion, a “non-U.S. holder” is any beneficial owner of our Class A common stock that is not a “U.S. person” or an entity treated as partnership for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more “United States” persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has a valid election in effect under applicable Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes.

Distributions on Our Class A Common Stock

As described in the section entitled “Dividend Policy,” we have never declared or paid, and do not anticipate declaring or paying, any cash dividends on our Class A common stock in the foreseeable future. However, if we do make distributions of cash or property on our Class A common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a non-U.S. holder’s adjusted tax basis in its Class A common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under “Gain on Sale or Other Taxable Disposition of Our Class A Common Stock.”

Subject to the discussion below on effectively connected income, dividends paid to a non-U.S. holder of our Class A common stock generally will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the non-U.S. holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). A non-U.S. holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

If dividends paid to a non-U.S. holder are effectively connected with the non-U.S. holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such dividends are attributable), the non-U.S. holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption, the non-U.S. holder must generally furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the non-U.S. holder’s conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular graduated rates. A non-U.S. holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

Gain on Sale or Other Taxable Disposition of Our Class A Common Stock

A non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our Class A common stock, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such gain is attributable);
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition, and certain other requirements are met; or
- our Class A common stock constitutes a United States real property interest ("USRPI") by reason of our status as a United States real property holding corporation ("USRPHC"), for U.S. federal income tax purposes.

Gain described in the first bullet point above will be subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates. A non-U.S. holder that is a corporation also may be subject to branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty), which may be offset by U.S. source capital losses of the non-U.S. holder (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a non-U.S. holder of our Class A common stock will not be subject to U.S. federal income tax if our Class A common stock is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market, and such non-U.S. holder owned, actually and constructively, 5% or less of our Class A common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the non-U.S. holder's holding period.

Non-U.S. holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Payments of dividends on our Class A common stock will not be subject to backup withholding, provided the applicable withholding agent does not have actual knowledge or reason to know the holder is a United States person and the holder either certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any dividends on our Class A common stock paid to the non-U.S. holder, regardless of whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our Class A common stock within the United States or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting, if the applicable withholding agent receives the certification described above and does not have actual knowledge or reason to know that such holder is a United States person, or the holder otherwise establishes an exemption. Proceeds of a disposition of our Class A common stock conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

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Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement with the tax authorities of the country in which the non-U.S. holder resides or is established.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Withholdable Payments to Foreign Financial Entities and Other Foreign Entities

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act, or "FATCA") on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or gross proceeds from the sale or other disposition of, our Class A common stock paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our Class A common stock, and will apply to payments of gross proceeds from the sale or other disposition of such stock on or after January 1, 2019.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our Class A common stock.

UNDERWRITERS

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. LLC, KeyBanc Capital Markets Inc. and Robert W. Baird & Co. Incorporated are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares of Class A common stock indicated below:

<u>Name</u>	<u>Number of Shares of Class A Common Stock</u>
Morgan Stanley & Co. LLC	
KeyBanc Capital Markets Inc.	
Robert W. Baird & Co. Incorporated	
Canaccord Genuity Inc.	
JMP Securities LLC	
Total:	

The underwriters and the representatives are collectively referred to as the “underwriters” and the “representatives,” respectively. The underwriters are offering the shares of Class A common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of Class A common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of Class A common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares of Class A common stock covered by the underwriters’ over-allotment option described below.

The underwriters initially propose to offer part of the shares of Class A common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers. After the initial offering of the shares of Class A common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We and the selling stockholders have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares of Class A common stock, of which 50% will be sold by us and 50% will be sold by the selling stockholders, at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of Class A common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of Class A common stock as the number listed next to the underwriter’s name in the preceding table bears to the total number of shares of Class A common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters’ option to purchase up to an additional _____ shares of Class A common stock.

	<u>Per Share</u>	<u>Total</u>	
		<u>No Exercise</u>	<u>Full Exercise</u>
Public offering price	\$	\$	\$
Underwriting discounts and commissions to be paid by us	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

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The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately \$4.3 million. We have agreed to reimburse the underwriters for expense relating to clearance of this offering with the Financial Industry Regulatory Authority up to \$35,000.

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed 5% of the total number of shares of Class A common stock offered by them.

We have applied to list our Class A common stock on the NASDAQ Global Select Market under the trading symbol "BAND".

We have agreed that, during a period of 180 days from the date of this prospectus (the "restricted period"), we will not, without the prior written consent of Morgan Stanley & Co. LLC on behalf of the underwriters, (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Class A common stock or any securities convertible into or exercisable or exchangeable for Class A common stock or (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Class A common stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Class A common stock or such other securities, in cash or otherwise or (3) file any registration statement with the SEC relating to the offering of any shares of Class A common stock or any securities convertible into or exercisable or exchangeable for Class A common stock. The foregoing sentence will not apply to (A) the shares of Class A common stock to be sold in this offering, (B) the issuance of shares of Class A common stock upon the exercise of an option or warrant (whether by cash exercise or "net" or "cashless exercise") or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing (including pursuant to disclosures made herein), including shares of Class A common stock issuable upon conversion of Class B common stock or convertible preferred stock in connection with this offering, *provided* that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales of Class A common stock or other securities acquired in such open market transactions, (C) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of Class A common stock, *provided* that (i) such plan does not provide for the transfer of Class A common stock during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by or on behalf of the selling stockholder or us regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of Class A common stock may be made under such plan during the restricted period, (D) the issuance of equity-based awards pursuant to the equity incentive award plans described in this prospectus, (E) the filing of a registration statement on Form S-8 relating to the shares of Class A common stock granted, or options to purchase, pursuant to or reserved for issuance under our equity incentive award plans or (F) the sale or issuance of or entry into an agreement to sell or issue shares of Class A common stock or securities convertible into or exercisable or exchangeable for Class A common stock in connection with (1) mergers, (2) acquisition of securities, businesses, proper or other assets, (3) joint ventures or (4) strategic alliances; *provided* the aggregate number of shares of Class A common stock or securities convertible into or exercisable for Class A common stock (on an as-converted or as-exercised basis, as the case may be) that we may sell or issue or agree to sell or issue pursuant to this clause (F) shall not exceed 5% of the total number of shares of our Class A common stock issued and outstanding immediately following the completion of the offering (determined on a fully-diluted basis and as adjusted for stock splits, stock dividends and other similar events after the date of the offering); and *provided* further, that each recipient of shares of Class A common stock or securities convertible into or exercisable for Class A common stock pursuant to this clause (F) shall be bound by those conditions applicable to our directors, officers and holders of more than 5% of our outstanding common stock and stock options detailed below.

In addition, all directors, executive officers and the holders of more than 5% of our outstanding stock and stock options and substantially all of the other holders of our stock and stock options, including the selling

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stockholders, have agreed that, without the prior written consent of Morgan Stanley & Co. LLC on behalf of the underwriters, they will not, during the restricted period:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of common stock beneficially owned (as such term is used in the Exchange Act), by such person or any other securities so owned convertible into or exercisable or exchangeable for common stock;
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock;

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, each such person agrees that, without the prior written consent of Morgan Stanley & Co. LLC on behalf of the underwriters, such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

Notwithstanding the immediately preceding paragraph, and subject to the conditions below, such person may transfer the lock-up securities without the prior written consent of Morgan Stanley & Co. LLC on behalf of the underwriters, provided that, with respect to paragraphs (i) – (vi) below, (1) Morgan Stanley & Co. LLC receives a signed lock-up agreement for the balance of the lockup period from each donee, trustee, distributee, or transferee, as the case may be and (2) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of common stock, shall be required or shall be voluntarily made during the restricted period (other than a filing on a Form 5):

- (i) as a bona fide gift; or
- (ii) to any trust for the direct or indirect benefit of such person or the immediate family of such person (for this purpose, “immediate family” shall mean any relationship by blood, marriage or adoption, not more remote than first cousin); or
- (iii) to any corporation, partnership, limited liability company, investment fund or other entity controlled or managed, or under common control or management by such person or the immediate family of such person; or
- (iv) by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of such person; or
- (v) as distributions to such person’s partners, members, stockholders or affiliates (as such term is defined in Rule 501(b) under the Securities Act or any of its affiliates’ directors, officers and employees);
- (vi) to a nominee or custodian of a person or entity to whom disposition or transfer would be permissible under (i) - (v) above; or
- (vii) from an executive officer to us upon death, disability or termination of employment of such executive officer.

The restrictions described in the preceding paragraphs do not apply to:

- the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, provided that (i) such plan does not provide for the transfer of common stock during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required or voluntarily made by us regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the restricted period; or

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- the exercise of options to purchase shares of common stock granted under any stock incentive plan or stock purchase plan, which plan is described in this prospectus, provided that the lock-up agreement shall apply to any securities issued upon such exercise and provided further that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made during the restricted period (other than a filing on a Form 5); or
- the exercise (whether for cash, cashless, or net exercise) of warrants to purchase shares of common stock (or any security convertible into or exercisable or exchangeable for common stock), which are disclosed in this prospectus, provided that the lock-up agreement shall apply to any securities issued upon such exercise; or
- the transfer of shares of common stock (or any security convertible into common stock) to us in connection with a vesting event of such securities or upon the exercise of options to purchase our securities, which securities or options have been issued pursuant to an incentive plan or stock purchase plan described in this prospectus, on a “cashless” or “net exercise” basis or to cover tax withholding obligations in connection with such vesting or exercise provided that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made during the restricted period (other than a filing on a Form 5); or
- the transfer or disposition of shares of common stock (or any security convertible into or exercisable or exchangeable for common stock) that occurs by operation of law, pursuant to a qualified domestic order or in connection with a divorce settlement, provided that the lock-up agreement shall apply to any such securities, provided further that any associated filing under Section 16(a) of the Exchange Act shall clearly indicate in the footnotes thereto that the filing relates to the circumstances described herein; or
- the conversion of the outstanding preferred stock into shares of common stock, provided that the lock-up agreement shall apply to any such securities; or
- the conversion of shares of Class B common stock to Class A common stock; provided that the lock-up agreement shall apply to any such shares of Class A common stock; or
- the transfer of shares of common stock (or any security convertible into or exercisable or exchangeable for common stock) pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction made to all holders of the common stock involving a change of control of us, provided that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the common stock shall remain subject to the lock-up agreement; or
- the transfer or disposal of shares of common stock acquired on the open market following the offering provided that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made during the restricted period (other than a filing on a Form 5).

In addition to the exceptions listed in the previous paragraph, Henry R. Kaestner’s lock-up agreement will permit transfers or dispositions of his shares of common stock (or any security convertible into or exercisable or exchangeable into common stock) to any trust for the direct or indirect benefit of one or more charitable organizations, provided that (x) each donee or distributee shall sign and deliver a lock-up letter substantially in the form of Mr. Kaestner’s lock-up agreement for the balance of the lock-up period and (y) any filing under Section 16(a) of the Exchange Act in connection with such transfers or dispositions shall explicitly reference such lock-up agreement by such donee or distributee.

Morgan Stanley & Co. LLC, in its sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time.

In order to facilitate the offering of the Class A common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the Class A common stock. Specifically, the underwriters

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may sell more shares of the Class A common stock than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares of the Class A common stock available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the over-allotment option or purchasing shares of the Class A common stock in the open market. In determining the source of shares of the Class A common stock to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares of the Class A common stock compared to the price available under the over-allotment option. The underwriters may also sell shares of the Class A common stock in excess of the over-allotment option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares of the Class A common stock in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the Class A common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of Class A common stock in the open market to stabilize the price of the Class A common stock. These activities may raise or maintain the market price of the Class A common stock above independent market levels or prevent or retard a decline in the market price of the Class A common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of Class A common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

Pricing of the Offering

Prior to this offering, there has been no public market for our Class A common stock. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were our future prospects and those of our industry in general, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours.

Directed Share Program

At our request, the underwriters have reserved 2.5% of the shares of Class A common stock to be issued by the company and offered by this prospectus for sale, at the initial public offering price, to directors, officers and employees and other persons associated with us, as designated by us. The number of shares of Class A common stock available for sale to the general public will be reduced to the extent these individuals purchase such reserved shares. Any reserved shares that are not so purchased will be offered by the underwriters to the general public on the same basis as the other shares offered by this prospectus.

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a “Relevant Member State”) an offer to the public of any shares of our Class A common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our Class A common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive; or
- (b) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our Class A common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer to the public” in relation to any shares of our Class A common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our Class A common stock to be offered so as to enable an investor to decide to purchase any shares of our Class A common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression “Prospectus Directive” means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression “2010 PD Amending Directive” means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (“FSMA”) received by it in connection with the issue or sale of the shares of our Class A common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our Class A common stock in, from or otherwise involving the United Kingdom.

Canada

The securities may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

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Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts* ("NI 33-105"), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Switzerland

The shares of Class A common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, us or the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA ("FINMA") and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission ("ASIC") in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons, or to the Exempt Investors, who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take into account the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate for their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Hong Kong

The shares of Class A common stock have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (i) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (ii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the shares of Class A common stock has been or may be issued or has been or may be in the possession of any person for the purposes of issuance, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares of Class A common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Japan

No registration pursuant to Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended) (the “FIEL”) has been made or will be made with respect to the solicitation of the application for the acquisition of the shares of Class A common stock.

Accordingly, the shares of Class A common stock have not been, directly or indirectly, offered or sold and will not be, directly or indirectly, offered or sold in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan) or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements, and otherwise in compliance with, the FIEL and the other applicable laws and regulations of Japan.

For Qualified Institutional Investors, or QII

Please note that the solicitation for newly-issued or secondary securities (each as described in Paragraph 2, Article 4 of the FIEL) in relation to the shares of Class A common stock constitutes either a “QII only private placement” or a “QII only secondary distribution” (each as described in Paragraph 1, Article 23-13 of the FIEL). Disclosure regarding any such solicitation, as is otherwise prescribed in Paragraph 1, Article 4 of the FIEL, has not been made in relation to the shares of Class A common stock. The shares of Class A common stock may only be transferred to QIIs.

For Non-QII Investors

Please note that the solicitation for newly-issued or secondary securities (each as described in Paragraph 2, Article 4 of the FIEL) in relation to the shares of Class A common stock constitutes either a “small number private placement” or a “small number private secondary distribution” (each as is described in Paragraph 4, Article 23-13 of the FIEL). Disclosure regarding any such solicitation, as is otherwise prescribed in Paragraph 1, Article 4 of the FIEL, has not been made in relation to the shares of Class A common stock. The shares of Class A common stock may only be transferred en bloc without subdivision to a single investor.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares of Class A common stock may not be circulated or distributed, nor may the shares of Class A common stock be offered or sold, or be made the subject of an

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invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA") (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares of Class A common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) the sole purpose of which is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares of Class A common stock pursuant to an offer made under Section 275 of the SFA except:

- (a) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (b) where no consideration is or will be given for the transfer;
- (c) where the transfer is by operation of law;
- (d) as specified in Section 276(7) of the SFA; or
- (e) as specified in Regulation of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

LEGAL MATTERS

The validity of the shares of Class A common stock offered hereby will be passed upon for us by Latham & Watkins LLP. The underwriters are being represented by Davis Polk & Wardwell LLP, in connection with this offering.

EXPERTS

The consolidated financial statements of Bandwidth Inc. at December 31, 2015 and 2016, and for each of the two years in the period ended December 31, 2016, appearing in this prospectus and registration statement have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of Class A common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules to the registration statement. Please refer to the registration statement and exhibits for further information with respect to the common stock offered by this prospectus. Statements contained in this prospectus regarding the contents of any contract or other document are only summaries. With respect to any contract or document that is filed as an exhibit to the registration statement, you should refer to the exhibit for a copy of the contract or document, and each statement in this prospectus regarding that contract or document is qualified by reference to the exhibit. You may read and copy the registration statement and its exhibits and schedules at the SEC's public reference room, located at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding issuers, like us, that file documents electronically with the SEC. The address of that website is www.sec.gov. The information on the SEC's web site is not part of this prospectus, and any references to this web site or any other web site are inactive textual references only.

Upon completion of this offering, we will become subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, will be required to file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available for inspection and copying at the SEC's public reference facilities and the website of the SEC referred to above. We also maintain a website at www.bandwidth.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained on, or that can be accessed through, our website is not a part of this prospectus. Investors should not rely on any such information in deciding whether to purchase our Class A common stock. We have included our website address in this prospectus solely as an inactive textual reference.

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BANDWIDTH INC.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Bandwidth Inc.

We have audited the accompanying consolidated balance sheets of Bandwidth Inc. as of December 31, 2015 and 2016, and the related consolidated statements of operations and comprehensive income (loss), changes in redeemable convertible preferred stock and stockholders' deficit and cash flows for each of the two years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Bandwidth Inc. at December 31, 2015 and 2016, and the consolidated results of its operations and its cash flows for each of the two years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Raleigh, North Carolina
August 16, 2017, except for the second paragraph of Note 1, as to which
the date is September 21, 2017, and
Note 16 as to which the date is October 23, 2017

BANDWIDTH INC.
CONSOLIDATED BALANCE SHEETS
(In Thousands, Except Share and per Share Amounts)

	<u>December 31,</u>		<u>June 30,</u>
	<u>2015</u>	<u>2016</u>	<u>2017</u>
			<u>(Unaudited)</u>
Assets			
Current assets:			
Cash and cash equivalents	\$10,059	\$ 6,788	\$ 5,679
Accounts receivable, net of allowance for doubtful accounts	12,795	16,838	16,968
Prepaid expenses and other current assets	1,733	2,318	3,463
Deferred costs	1,486	2,099	2,337
Current portion of assets of discontinued operations	6,068	—	—
Total current assets	<u>32,141</u>	<u>28,043</u>	<u>28,447</u>
Property and equipment, net	10,257	11,180	11,562
Intangible assets, net	10,068	8,482	8,063
Deferred costs, non-current	1,334	1,696	2,056
Other long-term assets	914	1,011	1,005
Goodwill	6,867	6,867	6,867
Deferred tax asset	—	12,694	10,238
Assets of discontinued operations, net of current portion	1,565	—	—
Total assets	<u>\$63,146</u>	<u>\$69,973</u>	<u>\$ 68,238</u>
Liabilities, redeemable convertible preferred stock and stockholders' deficit			
Current liabilities:			
Accounts payable	\$ 4,445	\$ 4,688	\$ 1,765
Accrued expenses	15,591	14,649	12,671
Current portion of deferred revenue and advanced billings	4,645	4,032	4,463
Current maturities of capital lease obligations	102	101	99
Line of credit, current portion	17,000	5,000	2,500
Current portion of long-term debt	—	2,000	2,500
Current portion of liabilities of discontinued operations	17,330	—	—
Total current liabilities	<u>59,113</u>	<u>30,470</u>	<u>23,998</u>
Other liabilities	50	609	914
Deferred revenue, net of current portion	589	1,712	2,091
Capital lease obligations, net of current portion	33	64	42
Deferred tax liability	617	—	—
Long-term debt, net of current portion	—	37,674	36,214
Total liabilities	<u>60,402</u>	<u>70,529</u>	<u>63,259</u>

BANDWIDTH INC.
CONSOLIDATED BALANCE SHEETS (CONTINUED)
(In Thousands, Except Share and per Share Amounts)

	<u>December 31,</u>		<u>June 30,</u>
	<u>2015</u>	<u>2016</u>	<u>2017</u>
			(Unaudited)
Redeemable convertible preferred stock:			
Series A redeemable convertible preferred stock; \$0.001 par value, 710,000 shares issued and outstanding at December 31, 2015 and 2016, and June 30, 2017 (unaudited), respectively	21,818	21,818	21,818
Commitments and contingencies			
Stockholders' deficit:			
Class A voting common stock; \$0.001 par value, 11,542,158, 11,779,975 and 11,791,420 shares issued and outstanding at December 31, 2015 and 2016, and June 30, 2017 (unaudited), respectively	12	12	12
Class B non-voting common stock, \$0.001 par value, 18,590, 18,590 and 34,840 shares issued and outstanding at December 31, 2015 and 2016, and June 30, 2017 (unaudited), respectively	—	—	—
Additional paid-in capital	35,434	9,356	9,955
Accumulated deficit	(54,520)	(31,742)	(26,806)
Total stockholders' deficit	<u>(19,074)</u>	<u>(22,374)</u>	<u>(16,839)</u>
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	<u>\$ 63,146</u>	<u>\$ 69,973</u>	<u>\$ 68,238</u>

See accompanying notes.

BANDWIDTH INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)

(In Thousands, Except Share and per Share Amounts)

	Year Ended December 31,		Six Months Ended June 30,	
	2015	2016	(Unaudited)	
	2016	2017		
Revenue:				
CPaaS revenue	\$ 101,502	\$ 117,078	\$ 56,651	\$ 63,194
Other revenue	36,299	35,057	18,118	15,957
Total revenue	137,801	152,135	74,769	79,151
Cost of revenue:				
CPaaS cost of revenue	64,760	71,218	35,379	37,147
Other cost of revenue	14,482	14,000	7,283	6,713
Total cost of revenue	79,242	85,218	42,662	43,860
Gross profit	58,559	66,917	32,107	35,291
Operating expenses:				
Research and development	7,375	8,520	3,767	5,091
Sales and marketing	8,620	9,294	4,458	4,971
General and administrative	34,602	33,859	15,672	15,894
Total operating expenses	50,597	51,673	23,897	25,956
Operating income	7,962	15,244	8,210	9,335
Other expense:				
Interest expense, net	(589)	(908)	(369)	(859)
Change in fair value of stockholders' anti-dilutive arrangement	—	—	—	(553)
Total other expense	(589)	(908)	(369)	(1,412)
Income from continuing operations before income taxes	7,373	14,336	7,841	7,923
Income tax (provision) benefit	(408)	11,094	(269)	(2,987)
Income from continuing operations	6,965	25,430	7,572	4,936
Loss from discontinued operations, net of income taxes	(13,665)	(3,072)	(3,011)	—
Net (loss) income	\$ (6,700)	\$ 22,358	\$ 4,561	\$ 4,936
Total comprehensive (loss) income, net of income tax	\$ (6,700)	\$ 22,358	\$ 4,561	\$ 4,936
Earnings (loss) per share:				
Income from continuing operations	\$ 6,965	\$ 25,430	\$ 7,572	\$ 4,936
Less: income allocated to participating securities	931	3,355	1,007	645
Income from continuing operations attributable to common stockholders	\$ 6,034	\$ 22,075	\$ 6,565	\$ 4,291
Income from continuing operations per share:				
Basic	\$ 0.52	\$ 1.89	\$ 0.57	\$ 0.36
Diluted	\$ 0.48	\$ 1.72	\$ 0.51	\$ 0.33
Net (loss) income	\$ (6,700)	\$ 22,358	\$ 4,561	\$ 4,936
Less: (loss) income allocated to participating securities	(896)	2,950	606	645
Net (loss) income attributable to common stockholders	\$ (5,804)	\$ 19,408	\$ 3,955	\$ 4,291
Net (loss) income per share:				
Basic	\$ (0.50)	\$ 1.66	\$ 0.34	\$ 0.36
Diluted	\$ (0.47)	\$ 1.51	\$ 0.31	\$ 0.33
Weighted average number of common shares outstanding:				
Basic	11,497,727	11,678,568	11,580,783	11,806,619
Diluted	12,456,540	12,870,632	12,820,334	12,977,606

See accompanying notes.

BANDWIDTH INC.
CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT

(In Thousands Except Share Amounts)

	Series A redeemable convertible preferred stock		Class A voting common Stock		Class B non-voting common Stock		Additional paid-in capital	Accumulated deficit	Total stockholders' deficit
	Shares	Amount	Shares	Amount	Shares	Amount			
Balance at December 31, 2014	710,000	\$ 21,818	11,455,615	\$ 12	14,060	\$ —	\$ 31,060	\$ (47,820)	\$ (16,748)
Issuance of common stock	—	—	69,405	—	4,530	—	161	—	161
Exercise of warrants to purchase common stock	—	—	17,138	—	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	4,213	—	4,213
Net loss	—	—	—	—	—	—	—	(6,700)	(6,700)
Balance at December 31, 2015	710,000	21,818	11,542,158	12	18,590	—	35,434	(54,520)	(19,074)
Issuance of common stock	—	—	218,345	—	—	—	1,111	—	1,111
Exercise of warrants to purchase common stock	—	—	19,472	—	—	—	150	—	150
Distribution of Republic	—	—	—	—	—	—	(28,899)	—	(28,899)
Shareholders' anti-dilutive arrangement	—	—	—	—	—	—	(324)	—	(324)
Cumulative effect of change in accounting principle	—	—	—	—	—	—	—	420	420
Stock-based compensation	—	—	—	—	—	—	1,884	—	1,884
Net income	—	—	—	—	—	—	—	22,358	22,358
Balance at December 31, 2016	710,000	21,818	11,779,975	12	18,590	—	9,356	(31,742)	(22,374)
Issuance of common stock (unaudited)	—	—	11,445	—	16,250	—	109	—	109
Stock-based compensation (unaudited)	—	—	—	—	—	—	490	—	490
Net income (unaudited)	—	—	—	—	—	—	—	4,936	4,936
Balance at June 30, 2017 (unaudited)	710,000	\$ 21,818	11,791,420	\$ 12	34,840	\$ —	\$ 9,955	\$ (26,806)	\$ (16,839)

See accompanying notes.

BANDWIDTH INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands)

	Year Ended December 31,		Six Months Ended June 30,	
	2015	2016	2016	2017
	(Unaudited)			
Operating activities				
Net (loss) income	\$ (6,700)	\$ 22,358	\$ 4,561	\$ 4,936
Loss from discontinued operations, net of income taxes	13,665	3,072	3,011	—
Adjustments to reconcile net (loss) income to net cash provided by (used in) operating activities:				
Depreciation and amortization	7,075	6,142	3,221	2,821
Amortization of debt issuance costs	49	52	24	64
Stock-based compensation	3,493	1,370	854	490
Change in fair value of shareholders' anti-dilutive arrangement	—	—	—	553
Deferred taxes	304	(11,086)	169	2,456
Loss (gain) on disposal of property and equipment	382	19	(16)	9
Impairment of intangible asset	—	695	—	—
Changes in operating assets and liabilities:				
Accounts receivable	(533)	(4,043)	(2,521)	(130)
Prepaid expenses and other assets	(570)	(848)	(652)	(1,180)
Deferred costs	2,877	(975)	(554)	(598)
Accounts payable	1,041	243	1,737	(2,923)
Accrued expenses and other liabilities	(2,540)	(567)	(1,029)	(2,229)
Deferred revenue and advance billings	108	510	1,748	811
Net cash provided by operating activities from continuing operations	18,651	16,942	10,553	5,080
Net cash used in operating activities from discontinued operations	(22,460)	(11,788)	(5,593)	—
Net cash (used in) provided by operating activities	(3,809)	5,154	4,960	5,080
Investing activities				
Purchase of property and equipment	(2,091)	(3,831)	(2,443)	(1,197)
Capitalized software development costs	(3,011)	(2,230)	(925)	(1,598)
Net cash used in investing activities from continuing operations	(5,102)	(6,061)	(3,368)	(2,795)
Net cash used in investing activities from discontinued operations	(860)	(1,311)	(663)	—
Net cash used in investing activities	(5,962)	(7,372)	(4,031)	(2,795)
Financing activities				
Borrowings on line of credit	43,500	56,950	29,700	4,000
Repayments on line of credit	(32,500)	(68,950)	(31,200)	(6,500)
Payments on capital leases	(155)	(102)	(61)	(23)
Borrowings on term loan	—	40,000	—	—
Repayments on term loan	—	—	—	(1,000)
Payment of debt issuance costs	(52)	(554)	(13)	—
Proceeds from issuances of common stock	129	974	902	109
Proceeds from exercises of warrants	—	150	—	—
Cash distribution to Republic	—	(30,000)	—	—
Decrease in restricted cash	116	479	13	20
Net cash provided by (used in) financing activities from continuing operations	11,038	(1,053)	(659)	(3,394)
Net increase (decrease) in cash and cash equivalents	1,267	(3,271)	270	(1,109)
Cash and cash equivalents, beginning of period	8,792	10,059	10,059	6,788
Cash and cash equivalents, end of period	<u>\$ 10,059</u>	<u>\$ 6,788</u>	<u>\$ 10,329</u>	<u>\$ 5,679</u>
Supplemental disclosure of cash flow information				
Cash paid during the year for interest	<u>\$ 1,103</u>	<u>\$ 1,314</u>	<u>\$ 382</u>	<u>\$ 965</u>
Cash paid for taxes	<u>\$ 73</u>	<u>\$ 6</u>	<u>\$ 77</u>	<u>\$ 484</u>
Supplemental disclosure of noncash financing activities				
Non-cash distribution of net liabilities to Spin-Off	<u>\$ —</u>	<u>\$ 1,101</u>	<u>\$ —</u>	<u>\$ —</u>
Acquisition of equipment through capital leases	<u>\$ 32</u>	<u>\$ 132</u>	<u>\$ —</u>	<u>\$ —</u>
Deferred initial public offering cost accruals	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 34</u>

See accompanying notes.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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1. Organization and Description of Business

Bandwidth.com, Inc., (together with its subsidiaries, "Bandwidth" or the "Company") was founded in July 2000 and incorporated in Delaware on March 29, 2001. Bandwidth.com CLEC LLC ("CLEC"), a subsidiary, was formed and incorporated in Delaware in January 2007. On February 20, 2012, Bandwidth created a wholly owned subsidiary for its broadband business, Broadband LLC ("Broadband"), which is incorporated in Delaware. IP Spectrum Solutions LLC, a subsidiary, was formed and incorporated in Delaware in January 2015. The Company is a cloud-based, software-powered communications platform-as-a-service provider ("CPaaS") that enables enterprises to create, scale and operate voice or text communications services across any mobile application or connected device or enterprises. The Company has two operating and reportable segments, CPaaS and Other. CPaaS revenue is derived from usage and monthly services fees charged for usage of Voice, Messaging, 911 and Phone Numbers solutions through the Company's proprietary CPaaS software application programming interfaces. Other revenue consists of fees charged for services provided such as: SIP trunking, data resale, and a hosted Voice over Internet Protocol ("VoIP"). The Other segment also includes revenue from traffic generated by other carriers ("CABS"), SMS registrations fees and other miscellaneous product lines.

On September 15, 2017, Bandwidth.com, Inc. changed its name to Bandwidth Inc.

2. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements and accompanying notes were prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The Company had no components of other comprehensive income (loss) during any of the periods presented, as such, a consolidated statement of comprehensive income (loss) is not presented.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Bandwidth Inc. and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Unaudited Interim Financial Statements

The accompanying consolidated interim financial statements as of June 30, 2017 and for the six months ended June 30, 2016 and 2017 and the related interim information contained within the notes to the consolidated financial statements are unaudited. The unaudited interim consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements. In the opinion of the Company's management, the accompanying unaudited interim consolidated financial statements contain all adjustments which are necessary to present fairly the Company's financial position as of June 30, 2017 and the results of its operations and cash flows for the six months ended June 30, 2016 and 2017. Such adjustments are of a normal and recurring nature. The results for the six months ended June 30, 2017 are not indicative of the results for the year ending December 31, 2017, or for any future period.

Use of Estimates

The preparation of the Company's consolidated financial statements in conformity with U.S. GAAP requires the Company to make estimates and judgments that affect the amounts reported in these financial statements and accompanying notes. Although the Company believes that the estimates it uses are reasonable, due to the inherent uncertainty involved in making these estimates, actual results reported in future periods could differ

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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from those estimates. These estimates in the consolidated financial statements include, but are not limited to, allowance for doubtful accounts, recoverability of long lives and intangible assets, customer relationship period, valuation allowances on tax assets, certain accrued expenses, and contingencies.

Revenue Recognition

Revenue consists primarily of the sale of communications services to large enterprise, as well as small and medium-sized business, customers and are generally derived from usage and monthly service fees for both the CPaaS and Other segments. Usage revenue includes voice communication (primarily driven by inbound minutes, outbound minutes, toll-free minutes) and messaging communication (driven by the number of messages) that traverse the platform and network. Revenue for these services is recognized in the period the usage occurs. Monthly service fees include the provision and management of phone numbers and emergency services access, which is recognized as the service is provided. In addition, the Company earns CABS revenue by allowing interconnected telecommunication carriers to pass traffic through its network and, as such the Company is the principal in delivering communication services to such carriers. Due to the lack of timeliness of payments and the frequency of carrier disputes, the Company recognizes revenue related to this service only when collectability is probable.

When required as part of providing service, revenues and associated expenses related to nonrefundable, upfront service activation and setup fees are deferred and recognized over the longer of the associated service contract period or estimated customer life.

Revenue recognition commences when all of the following criteria are met (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred; (iii) the fee is fixed or determinable; and (iv) collection is probable.

Customers generally enter into arrangements that are typically two to three years in length. Incremental direct costs incurred related to the acquisition of a customer contract are expensed as incurred.

Cost of Revenue

CPaaS cost of revenue consists primarily of fees paid to other network service providers from whom the Company buys services such as minutes of use, phone numbers, messages, porting of customer numbers, and network circuits. Cost of revenue also contains costs related to the support of the network, web services and cloud infrastructure, capacity planning and management, rent for network facilities, software licenses, hardware and software maintenance fees, and network engineering services. Personnel costs (including non-cash stock-based compensation expenses) associated with personnel who are responsible for the delivery of services, operation and maintenance of the communications network, customer support, as well as, third party support agreements, and depreciation are also recorded as cost of revenue.

Other cost of revenue consists of amortization of capital software development costs related to platform applications supporting non-CPaaS services including circuit costs paid to third party providers, internet connectivity expenses, minutes of use, contractors, regulatory fees and surcharges, depreciation, and software and hardware maintenance fees.

Operating Expenses

Research and Development

Research and development expenses consist primarily of personnel costs (including non-cash stock-based compensation expenses), outsourced software development and engineering services and cloud infrastructure fees for staging and development outsourced engineering services.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In Thousands Except Share and per Share Amounts)

Sales and Marketing

Sales and marketing expenses consist primarily of personnel costs, including commissions for sales employees and non-cash stock-based compensation expenses. Sales and marketing expenses also include expenditures related to advertising, marketing, brand awareness activities, sales support and professional services fees.

General and Administrative

General and administrative expenses consist primarily of personnel costs for support personnel and executives in accounting, finance, legal, human resources and administrative functions. General and administrative expenses also include costs related to product management and reporting, data services, customer billing and collection functions, legal, information services, and other professional services fees, credit card processing fees, rent associated with the Company's headquarters in Raleigh, North Carolina, depreciation and amortization.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original or remaining maturity of three months or less at the date of purchase, as well as overnight repurchase investments, to be cash equivalents.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are stated at realizable value, net of an allowance for doubtful accounts. The allowance for doubtful accounts is based on management's assessment of the collectability of accounts. The Company regularly reviews the composition of the accounts receivable aging, historical bad debts, changes in payment patterns, customer creditworthiness and current economic trends. If the financial condition of customers were to deteriorate, resulting in their inability to make required payments, additional provisions for doubtful accounts would be required and would increase bad debt expense. Management has evaluated the collectability of trade accounts receivable and determined that allowances of approximately \$12,555, \$22,571 and \$27,513 for uncollectible accounts and customer balances that are disputed were required as of December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited), respectively. The allowance for doubtful accounts primarily relates to billings for CABS services where collectability was deemed not probable. Refer to Note 4 for a rollforward of the components of the allowance for doubtful accounts for the years ended December 31, 2015 and 2016 and the six months ended June 30, 2017.

The Company includes unbilled receivables in its accounts receivable balance. Generally, these receivables represent services provided to customers, which will be billed in the next billing cycle. All amounts are considered collectible and billable. As of December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited), unbilled receivables were \$5,988, \$7,368 and \$7,732 respectively.

Concentration of Credit Risk

Financial instruments that are exposed to concentration of credit risk consist primarily of cash and cash equivalents and trade accounts receivable. Cash deposits may be in excess of insured limits. The Company believes that the financial institutions that hold its cash deposits are financially sound and, accordingly, minimal credit risk exists with respect to these balances.

With regard to customers, credit evaluation and account monitoring procedures are used to minimize the risk of loss. The Company believes that no additional credit risk beyond amounts provided for allowance for doubtful accounts are inherent in accounts receivable. The Company has an ongoing dispute and litigation with

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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MCI Communications Services, Inc. d/b/a Verizon Business and Verizon Select Services, Inc. (collectively, “Verizon”), which is one of its CABS customers. Billings to Verizon for the year ended December 31, 2015 and 2016 were approximately \$6,766 and \$10,366, respectively and \$2,917 and \$4,686 for the six months ended June 30, 2016 and 2017. These amounts billed are outstanding for the respective periods and represent disputed and unpaid billings that are fully reserved within the Company’s allowance for doubtful accounts. No revenue has been recognized related to the outstanding and disputed balances.

No individual customer represented more than 10 percent of revenues and accounts receivable at December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited).

Property and Equipment, net

Property and equipment, net is stated at cost, less accumulated depreciation and amortization. Depreciation and amortization is calculated on a straight-line basis over the estimated useful lives of those assets as follows:

Computer hardware and software	2 to 5 years
Internal-use software development costs	3 years
Furniture and fixtures	2 to 7 years
Leasehold improvements	Shorter of the estimated lease term or useful life

Maintenance and repairs are charged to expense as incurred.

Deferred Costs

The Company defers certain direct and incremental upfront costs related to the generation of a revenue stream or obtaining a new customer agreement. These costs include installment fees, activation and other telecommunication fees. The Company capitalizes these costs and amortizes them over the longer of the term of the customer contracts or the estimated customer life, which is approximately three years.

Software Development Costs

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

Debt Issuance Costs

The Company incurred debt issuance costs associated with obtaining and entering into a five-year Credit and Security Agreement in November 2016, which includes a revolving credit facility and a term loan. These

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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costs included non-refundable structuring fees, commitment fees, up-front fees and syndication expenses, which have been deferred and are being amortized based on the effective interest method over the term of the Credit and Security Agreement. The debt issuance costs associated with the revolving credit facility are recorded as a deferred asset in the accompanying consolidated balance sheets. The unamortized debt issuance costs, which are included in prepaid expenses and other current assets in the accompanying consolidated balance sheets, were \$200 and \$175 as of December 31, 2016 and June 30, 2017 (unaudited), respectively. Debt issuance costs associated with the term loan are recognized as an adjustment of the yield of the loan and are reflected as a reduction of the long-term debt balance. As of December 31, 2016 and June 30, 2017 (unaudited), unamortized debt issuance costs were \$326 and \$286, respectively.

As of December 31, 2015, the Company had unamortized debt issuance cost of \$24 from a previous credit facility that has since been repaid.

Goodwill

The Company reviews goodwill and indefinite-lived intangible assets at least annually, as of December 31, for possible impairment. Goodwill and indefinite-lived intangible assets are reviewed for possible impairment at an interim date if an event occurs or circumstances change that would more likely than not reduce the fair value of the reporting unit or indefinite-lived intangible asset below its carrying value. The Company tests goodwill at the reporting unit level and have determined that it has two-reporting units, CPaaS and Other. All Goodwill is allocated to the CPaaS reporting unit. Management may first evaluate qualitative factors to assess if it is more likely than not that the fair value of a reporting unit is less than its carrying amount and to determine if a two-step impairment test is necessary. Management may choose to proceed directly to the two-step evaluation, bypassing the initial qualitative assessment. 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, then the Company would perform the second step of the goodwill impairment test to determine the amount of the impairment loss. The impairment loss would be calculated by comparing the implied fair value of the goodwill to its net book value. In calculating the implied fair value of goodwill, the fair value of the entity would be allocated to all of the other assets and liabilities based on their fair values. The excess of the fair value of the entity over the amount assigned to other assets and liabilities is the implied fair value of goodwill. An impairment loss would be recognized when the carrying amount of goodwill exceeds its implied fair value.

The Company makes assumptions regarding estimated future cash flows, discount rates, long-term growth rates and market values to determine each reporting unit's and indefinite-lived intangible asset's estimated fair value. If these estimates or related assumptions change in the future, the Company may be required to record an impairment charge. As of December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited), the Company has recorded goodwill of \$6,867. No goodwill impairment charges were recorded for the years ended December 31, 2015, December 31, 2016 and the six months ended June 30, 2016 and 2017 (unaudited).

Impairment of Long-Lived Assets

The Company evaluates long-lived assets, including property and equipment and definite lived 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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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Advertising Costs

The Company expenses advertising costs as incurred. Advertising costs total \$329 and \$197 for the years ended December 31, 2015 and 2016, respectively, and \$109 and \$93 for the six months ended June 30, 2016 and 2017 (unaudited), respectively, which are included in sales and marketing expenses in the accompanying consolidated statements of operations.

Commissions

Commissions consist of variable compensation earned by sales personnel and third-party resellers. Sales commissions associated with the acquisition of a new customer contract are recognized as sales and marketing expense at the time the customer has entered into a binding agreement.

Income Taxes

The Company accounts for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are determined based on temporary differences between the financial statement and tax basis of assets and liabilities using enacted tax rates. The Company recognizes the effect of a change in tax rates on deferred tax assets and liabilities in the period that includes the enactment date.

The Company reduces the measurement of a deferred tax asset, if necessary, by a valuation allowance if it is more likely than not that it will not realize some or all the deferred tax asset. Quarterly, the Company reviews the deferred tax assets for recoverability based on historical taxable income, projected future taxable income, the expected timing of the reversals of existing temporary differences and the implementation of prudent and feasible tax planning strategies. The evaluation of the recoverability of deferred tax assets requires judgment in assessing future profitability. Should there be a change in the ability to recover deferred tax assets, the Company's income tax provision would increase or decrease in the period in which the assessment is changed.

The Company accounts for uncertain tax positions by recognizing the financial statement effects of a tax position only when, based upon technical merits, it is more likely than not that the position will be sustained upon examination. The tax benefit recognized is measured as the largest amount of benefit determined on a cumulative probability basis that the Company believes is more likely than not to be realized upon ultimate settlement of the position. The Company recognizes potential accrued interest and penalties associated with unrecognized tax positions in income tax expense.

Fair Value of Financial Instruments

The carrying amounts of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate fair value as of December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited) because of the relatively short duration of these instruments. The carrying value of long-term debt approximates fair value given interest rates are based on market rates. The rates are subject to change monthly, quarterly, semi-annually or annually at the Company's election.

The Company uses a three-tier fair value hierarchy to classify and disclose all assets and liabilities measured at fair value on a recurring basis, as well as assets and liabilities measured at fair value on a non-recurring basis, in periods subsequent to their initial measurement. The hierarchy requires use of observable inputs when available, and to minimize the use of unobservable inputs when determining fair value. The three tiers are defined as follows:

- **Level 1.** Observable inputs based on unadjusted quoted prices in active markets for identical assets or liabilities;

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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- **Level 2.** Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and
- **Level 3.** Unobservable inputs for which there is little or no market data, which requires the Company to develop its own assumptions.

The Company evaluated its financial assets and liabilities subject to fair value measurements on a recurring basis to determine the appropriate level in which to classify them for each reporting period. The following table summarizes the assets measured at fair value as of December 31, 2015, December 31, 2016 and the six months ended June 30, 2017 (unaudited):

	Fair Value Measurements on a Recurring Basis			
	December 31, 2015			
	Level 1	Level 2	Level 3	Total
Money Market Account	\$ 545	\$ —	\$ —	\$ 545

	Fair Value Measurements on a Recurring Basis			
	December 31, 2016			
	Level 1	Level 2	Level 3	Total
Money Market Account	\$ 63	\$ —	\$ —	\$ 63
Shareholders' anti-dilutive arrangement	—	—	184	184
Total	\$ 63	\$ —	\$ 184	\$ 247

	Fair Value Measurements on a Recurring Basis			
	June 30, 2017 (Unaudited)			
	Level 1	Level 2	Level 3	Total
Money Market Account	\$ 59	\$ —	\$ —	\$ 59
Shareholders' anti-dilutive arrangement	—	—	737	737
Total	\$ 59	\$ —	\$ 737	\$ 796

The Company monitors the availability of observable market data to assess the appropriate classification of financial instruments within the fair value hierarchy. Changes in economic conditions or model-based valuation techniques may require the transfer of financial instruments from one fair value level to another. In such instances, the transfer is reported at the beginning of the reporting period. There were no transfers between Levels 1, 2 or 3 during the years ended December 31, 2015, December 31, 2016 or the six months ended June 30, 2017 (unaudited).

The money market account is included in cash and cash equivalents in the consolidated balance sheets as of December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited).

On February 22, 2011, the Company entered into an anti-dilutive arrangement with the Principal Non-Founder Stockholders ("Principal Stockholders"). Under the terms of the agreement, the Principal Stockholders received the right ("shareholders' anti-dilutive arrangement") to purchase a pro-rata number of shares based on their ownership percentage of outstanding shares, when certain option holders exercise his or her stock option. The price at which the Principal Stockholders may purchase their pro-rata shares matches the exercise price of the option exercised. The Principal Stockholders have 90 days from the date of receipt of notice to inform the Company of their intention to purchase stock under the terms of the agreement. On a quarterly basis, the Company adjusts this liability to fair value.

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The agreement terminates by one of the following events:

- closing of a “Qualified Public Offering,” which is defined as one resulting in aggregate net proceeds to the Company equal to or greater than \$20 million, or
- a “true sale” as defined in the Investors’ Rights Agreement.

Upon termination of the agreement, this liability would terminate.

The shareholders’ anti-dilutive arrangement is included in other liabilities in the consolidated balance sheets as of December 31, 2016 and June 30, 2017 (unaudited). The change in fair value of the Level 3 liability resulted in \$553 of additional expense for the six months ending June 30, 2017 (unaudited), which is recorded in other expense in its consolidated statements of operations and comprehensive income (loss).

The fair value of the shareholders’ anti-dilutive arrangement is estimated using the Black-Scholes-Merton option pricing model. The significant unobservable inputs used in the fair value measurement of the shareholders’ anti-dilutive arrangement are the fair value of the Company’s stock and the expected term of the options. The expected term is calculated as a weighted average of the estimated time to IPO as of the measurement date and the historical average term of options subject to the agreement which were vested and expired or were exercised. Volatility is based on the historical volatility of certain public entities that are similar to the Company as the Company does not have sufficient historical transactions of its own shares on which to base expected volatility. Significant increases (decreases) in the fair value of the Company’s stock price would result in a significantly larger (smaller) fair value liability measurement. Significant increases (decreases) in the expected term would result in a larger (smaller) fair value liability measurement.

Stock-Based Compensation

The Company accounts for stock-based compensation expense related to stock-based awards based on the estimated fair value of the award on the grant date. Stock-based compensation expense is recognized on a straight-line basis over the requisite service period, which is generally four years. The Company uses the Black-Scholes option pricing model for estimating the fair value of stock options. The use of the option valuation model requires the input of the Company’s stock price and other subjective assumptions, including the expected life of the option and the expected stock price volatility. Given the absence of a public trading market for the Company’s common stock, the Company considers objective and subjective factors to determine the fair value of the Company’s common stock at each grant date. Additionally, the recognition of expense requires the estimation of the number of awards that will ultimately vest and the number of awards that will ultimately be forfeited.

Operating Segments

Operating segments are defined as components of an enterprise for which separate financial information is available and evaluated regularly by the chief operating decision maker (“CODM”) in deciding how to make operating decisions, allocate resources and in assessing performance. The Company has two operating segments, CPaaS and Other, which are deemed to be reportable segments. The Company’s CODM is its Chief Executive Officer. The CODM evaluates the performance of the Company’s operating segments primarily based on revenue and gross profit. The Company does not analyze discrete segment balance sheet information related to long-term assets, all of which are located in the United States. All other financial information is presented on a consolidated basis.

Earnings (loss) per Share

Basic earnings (loss) per share attributable to common stockholders is calculated by dividing the net income (loss) attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period.

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Diluted net income (loss) per share is calculated by giving effect to all potentially dilutive common stock when determining the weighted-average number of common shares outstanding. For purposes of the diluted net income (loss) per share calculation, options and warrants to purchase common stock and redeemable convertible preferred stock are considered to be potential common stock.

The Company has issued securities other than common stock that participate in dividends (“Participating Securities”), and therefore utilizes the two-class method to calculate net income (loss) per share. These Participating Securities include redeemable convertible preferred stock. The two-class method requires a portion of net income (loss) to be allocated to the Participating Securities to determine the net income (loss) attributable to common stockholders. Net income (loss) attributable to the common stockholders is equal to the net income (loss) less dividends paid on preferred stock with any remaining earnings allocated in accordance with the bylaws between the outstanding common and redeemable convertible preferred stock as of the end of each period.

Emerging Growth Company Status

The Company is an “emerging growth company” as defined in the Jumpstart Our Business Startups Act (“JOBS Act”). The JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. The Company has elected to avail itself of this extended transition period and, as a result, it will not adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

Recently Adopted Accounting Pronouncements

In March 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-09, *Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. The effective date of ASU 2016-09 for private business entities is for fiscal years beginning after December 15, 2017. Early adoption is permitted and the Company adopted the amendments in ASU 2016-09 effective January 1, 2016. This standard simplifies several aspects of the accounting for equity-based payment awards, including the income tax consequences and classification on the statement of cash flows. Certain changes implemented by this standard are required to be applied retrospectively, while other changes are required to be applied prospectively. The Company elected to continue to estimate forfeitures when recording stock-based compensation expense.

All excess tax benefits and tax deficiencies related to the year ended December 31, 2016 were recognized in income tax expense. Prior to the adoption of this new standard, this amount would have been recorded as additional paid-in capital. This change could create future volatility in the Company’s effective tax rate depending upon the amount of exercise or vesting activity from stock based awards.

The recognition of previously unrecognized excess tax benefits of \$420 was recognized as a cumulative effect adjustment on a modified retrospective basis. The Company recorded a deferred tax asset for previously unrecognized excess tax benefits outstanding as of the January 1, 2016, with an offsetting adjustment to accumulated deficit.

In addition, cash flows related to excess tax benefits will no longer be classified as a financing activity apart from other income tax cash flows. The Company has adopted the change in presentation of excess tax benefits as an operating activity on the statements of cash flows on a prospective basis.

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes (Topic 740)*, which requires that all deferred tax assets and liabilities, including any related valuation allowance, be

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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classified as noncurrent on the balance sheet. ASU 2015-17 is effective for fiscal years beginning after December 15, 2016 for public entities, and early adoption is permitted. The Company elected to early adopt ASU 2015-17 beginning with the year ended December 31, 2015.

In April 2015, the FASB issued ASU 2015-05, *Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*. This new standard, which provides guidance to customers about whether a cloud computing arrangement includes a software license, was effective January 1, 2016. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. The Company prospectively adopted this standard on January 1, 2016. The adoption of this standard did not have a material impact on its consolidated financial statements.

In April 2015, the FASB issued ASU 2015-03, *Simplifying the Presentation of Debt Issuance Costs*, which simplifies the presentation of debt issuance costs by requiring that such costs be presented in the consolidated balance sheets as a direct deduction from the carrying value of the associated debt instrument, consistent with debt discounts. Subsequent to the issuance of ASU 2015-03, the SEC staff announced that the presentation of debt issuance costs associated with line-of-credit arrangements may be presented as an asset. This announcement was codified by the FASB in ASU 2015-15. These ASUs were effective for the year ended December 31, 2016, and their adoption did not have a material impact on the Company's financial condition, results of operations or cash flows.

In August 2014, the FASB issued ASU 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*, which amends ASC Subtopic 205-40 to provide guidance about management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related disclosures. ASU 2014-15 was effective for the year ended December 31, 2016, and its adoption did not have a material impact on the Company's financial condition, results of operations or cash flows.

Recent Accounting Pronouncements Not Yet Adopted

In May 2017, the FASB issued ASU 2017-09, *Scope of Modification Accounting*, which amends the scope of modification accounting for share-based payment arrangements. The ASU provides guidance on the types of changes to terms or conditions of share-based payment awards to which an entity would be required to apply modification accounting under ASC 718, Compensation—Stock Compensation. ASU 2017-09 is effective for fiscal years and interim periods within those years beginning after December 15, 2017, and early adoption is permitted. The Company is evaluating the impact of this guidance on its consolidated financial statements and related disclosures.

In January 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment*, which simplifies the accounting for goodwill impairment. The ASU requires impairment charges to be based on the first step in today's two-step impairment test under Accounting Standards Codification (ASC) 350. ASU 2017-04 is effective for annual and interim impairment tests performed in periods beginning after December 15, 2021, and early adoption is permitted. The Company is evaluating the impact of this guidance on its consolidated financial statements and related disclosures.

In January 2017, the FASB issued ASU 2017-01, *Business Combinations (Topic 805) Clarifying the Definition of a Business*, which amends the guidance of FASB Accounting Standards Codification Topic 805, "Business Combinations", adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions or disposals of assets or businesses. The definition of a business affects many areas

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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of accounting including acquisitions, disposals, goodwill, and consolidation. This guidance is effective for annual and interim periods beginning after December 15, 2017, and early adoption is permitted under certain circumstances. The adoption of this standard is dependent upon future transactions.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Cash Payments*, which clarifies how entities should classify certain cash receipts and cash payments on the statement of cash flows. The guidance also clarifies how the predominance principle should be applied when cash receipts and cash payments have aspects of more than one class of cash flows. ASU 2016-15 is effective for fiscal years beginning after December 15 2018, and interim periods within fiscal years beginning after December 15, 2019, and early adoption is permitted. Entities will have to apply the guidance retrospectively, but if it is impracticable to do so for an issue, the amendments related to that issue would be applied prospectively. The Company is evaluating the impact of this guidance on its consolidated financial statements and related disclosures.

In February 2016, the FASB issued ASU 2016-02, *Leases*. The standard will affect all entities that lease assets and will require lessees to recognize a lease liability and a right-of-use asset for all leases (except for short-term leases that have a duration of less than one year) as of the date on which the lessor makes the underlying asset available to the lessee. For lessors, accounting for leases is substantially the same as in prior periods. ASU 2016-02 is effective for fiscal years beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020, and early adoption is permitted. For leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, lessees and lessors must apply a modified retrospective transition approach. While the Company expects the adoption of this standard to result in an increase to the reported assets and liabilities, it has not yet determined the full impact that the adoption of this standard will have on its financial statements and related disclosures.

In September 2015, the FASB, issued ASU 2015-16, *Business Combinations (Topic 805), Simplifying the Accounting for Measurement-Period Adjustments*, which eliminates the requirement for an acquirer in a business combination to account for measurement-period adjustments retrospectively. ASU 2015-16 is effective for the year ended December 31, 2017, and interim periods within fiscal years beginning after December 15, 2017. The impact of adopting this standard is dependent upon future transactions.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers*. This new guidance will replace most existing U.S. GAAP guidance on this topic. The new revenue recognition standard provides a unified model to determine when and how revenue is recognized. The core principle is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration for which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers: Deferral of the effective date*, which deferred by one year the effective date for the new revenue reporting standard for entities reporting under U.S. GAAP. In accordance with the deferral, this guidance will be effective for the Company beginning January 1, 2019. This guidance can be applied either retrospectively to each period presented or as a cumulative-effect adjustment as of the date of adoption. Early adoption is permitted beginning January 1, 2017. In December 2016, the FASB issued ASU 2016-20, *Revenue from Contracts with Customers, Technical Corrections and Improvements to Topic 606*, which made twelve additional technical corrections and improvements to the new revenue standard. In March 2016, the FASB issued ASU 2016-08, *Revenue from Contracts with Customers, Principal versus Agent Considerations (Reporting Revenue Gross versus Net)* clarifying the implementation guidance on principal versus agent considerations. Specifically, an entity is required to determine whether the nature of a promise is to provide the specified good or service itself (that is, the entity is a principal) or to arrange for the good or service to be provided to the customer by the other party (that is, the entity is an agent). The determination influences the timing and amount of revenue recognition. In April 2016, the FASB issued ASU

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2016-10, *Revenue from Contracts with Customers, Identifying Performance Obligations and Licensing*, clarifying the implementation guidance on identifying performance obligations and licensing. Specifically, the amendments reduce the cost and complexity of identifying promised goods or services and improve the guidance for determining whether promises are separately identifiable. The amendments also provide implementation guidance on accounting for an entity's promise to grant a license. In May 2016, the FASB issued ASU 2016-12, *Revenue from Contracts with Customers, Narrow-Scope Improvements and Practical Expedients*, clarifying guidance on assessing collectability, presentation of sales taxes, noncash consideration, completed contracts and contract modifications. The effective date and transition requirements for ASU 2016-20, ASU 2016-08 and ASU 2016-10 are the same as the effective date and transition requirements for ASU 2014-09.

The Company is still assessing all potential impacts of the new standard on its consolidated financial statements. Given the comprehensive nature of the standard, the Company has already taken steps to begin assessing the impact on its consolidated financial results. It has begun a preliminary diagnostic, in order to highlight potential differences between current accounting policies and the new standard. Additionally, the Company engaged a third-party service provider to assist in its evaluation of customer contracts to identify the attributes that could result in a different accounting treatment under ASU 2014-09. From an information technology perspective, the Company has begun assessing the business requirements and required functionality of a new technology solution and is in the process of meeting with third party software providers to determine which technology to implement. The Company has not reached a conclusion as to whether the quantitative effect of the adoption of the new standard on its revenue streams will be material. It will continue to monitor and assess the impact of the changes of the new standard and the related interpretations of its application as they become available.

3. Discontinued Operations

On April 20, 2015, the Company created a wholly owned subsidiary, Republic Wireless, Inc. ("Republic"), which was incorporated in Delaware. On November 30, 2016, the Company completed a pro-rata distribution of the common stock of Republic to its stockholders of record as of the close of business (the "Spin-Off"). Each of its stockholders received one share of Republic common stock for each share of Bandwidth common or redeemable convertible preferred stock held as of the close of business on November 30, 2016. Accordingly, the results of operations, financial condition and cash flows of Republic have been presented as discontinued operations for all periods presented in the accompanying consolidated financial statements.

The distribution was recorded at the carrying amount of Republic's net liabilities of \$1,101 as of November 30, 2016, as follows:

Assets	
Accounts receivable, net of allowance for doubtful accounts	\$ 1,199
Inventory	7,305
Prepaid expenses and other current assets	2,540
Total current assets	<u>11,044</u>
Property and equipment, net	1,898
Other long-term assets	196
Total assets	<u>\$13,138</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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Liabilities	
Accounts payable	\$ 7,126
Accrued expenses	3,662
Deferred revenue	3,310
Total current liabilities	<u>14,098</u>
Other long-term liabilities	141
Total liabilities	<u>\$14,239</u>
Net liabilities of Republic	<u>\$ 1,101</u>

In addition, the Company distributed \$30,000 in cash to Republic in connection with the Spin-Off. Accordingly, the net assets distributed to the stockholders in connection with the Spin-Off was \$28,899. Bandwidth has not otherwise provided nor does it intend to provide financial support to Republic.

Given the nature of the Spin-Off transaction, the equity holders of Bandwidth are comprised of substantially the same individuals and entities that are the equity owners of Republic. The Company has determined the equity owners of Republic are related parties of Bandwidth. As described in Note 14, the Company has certain involvement with Republic via ongoing services arrangements, with these ongoing services arrangements creating a variable interest in Republic. The Company assessed the relationship with Republic under guidance for variable interest entities, and due to the fact that investors in Republic have disproportionate voting rights, the Company concluded that Republic is a variable interest entity ("VIE").

Republic is a provider of Wi-Fi centric mobile services directly to retail consumers. Bandwidth determined it is not the primary beneficiary of Republic, as Bandwidth and its related parties do not individually have power to direct the activities that most significantly impact Republic's economic performance and power is not shared. Bandwidth's involvement with Republic involves providing certain support services through the Transition Services Agreement, which does not give it power over key activities. Key activities are directed by the Board of Directors Republic, which require majority approval. Bandwidth does not have direct representation on the Board of Republic and is not able to exert power over its key activities. Bandwidth does not have an implicit variable interest in Republic. Republic is financed primarily through the cash distribution in connection with the Spin-off and its own ongoing operations.

The Company's maximum exposure to loss relating to this variable interest entity is limited to amounts due under the service agreements between Bandwidth and Republic as described in Notes 11 and 14.

The Spin-Off represents a strategic shift to Bandwidth's business. The Company believes that for US Federal income tax purposes, the Spin-Off will qualify as tax-free for Republic, Bandwidth and its stockholders. The Company entered into a tax sharing agreement with Republic that governs rights and obligations after the Spin-Off regarding income taxes and other taxes, including tax liabilities and benefits, attributes, returns and contests.

The carrying amounts of major classes of assets included as part of discontinued operations as of December 31, 2015 are as follows:

Accounts receivable, net	\$ 682
Inventory	4,511
Prepaid expenses and other current assets	875
Property and equipment, net	1,499
Other assets	66
Assets of discontinued operations	<u>\$7,633</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In Thousands Except Share and per Share Amounts)

The carrying amounts of major classes of liabilities included as part of discontinued operations as of December 31, 2015 are as follows:

Accounts payable	\$ 4,076
Accrued expenses	10,097
Current portion of deferred revenue and advanced billings	3,157
Liabilities of discontinued operations	<u>\$17,330</u>

The table below provides the operating results of the discontinued operations through the date of the Spin-Off for the years ended December 31, 2015, December 31, 2016 and the six months ended June 30, 2016 (unaudited):

	<u>Years ended December 31,</u>		<u>Six months ended</u>
	<u>2015</u>	<u>2016</u>	<u>June 30,</u>
			<u>2016</u>
			<u>(Unaudited)</u>
Revenue	\$ 91,304	\$ 83,156	\$ 42,246
Direct costs of network services and equipment	(78,922)	(61,582)	(31,489)
Operating expense	(24,692)	(25,502)	(13,240)
Depreciation and interest	(1,355)	(949)	(528)
Income tax benefit	—	1,805	—
Loss from discontinued operations	<u>\$ (13,665)</u>	<u>\$ (3,072)</u>	<u>\$ (3,011)</u>

4. Financial Statement Components

Accounts receivable, net of allowance for doubtful accounts consisted of the following:

	<u>December 31,</u>		<u>June 30,</u>
	<u>2015</u>	<u>2016</u>	<u>2017</u>
			<u>(Unaudited)</u>
Trade accounts receivable	\$ 19,195	\$ 31,734	\$ 36,552
Unbilled accounts receivable	5,988	7,368	7,732
Allowance for doubtful accounts	(12,555)	(22,571)	(27,513)
Other accounts receivable	167	307	197
Total accounts receivable, net	<u>\$ 12,795</u>	<u>\$ 16,838</u>	<u>\$ 16,968</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In Thousands Except Share and per Share Amounts)

	<u>Balance at beginning of period</u>	<u>Charged to bad debt expense</u>	<u>Billings deemed not probable of collection(1)</u>	<u>Deductions(2)</u>	<u>Balance at end of period</u>
Year ended December 31, 2015					
Allowance for CABS revenue	\$ 5,552	—	\$ 7,163	\$ (398)	\$ 12,317
Allowance for all other customers	443	383	73	(661)	238
Total allowance for doubtful accounts	<u>\$ 5,995</u>	<u>\$ 383</u>	<u>\$ 7,236</u>	<u>\$ (1,059)</u>	<u>\$ 12,555</u>
Year ended December 31, 2016					
Allowance for CABS revenue	\$ 12,317	—	\$ 10,494	\$ (495)	\$ 22,316
Allowance for all other customers	238	238	40	(261)	255
Total allowance for doubtful accounts	<u>\$ 12,555</u>	<u>\$ 238</u>	<u>\$ 10,534</u>	<u>\$ (756)</u>	<u>\$ 22,571</u>
Six months ended June 30, 2017 (unaudited)					
Allowance for CABS revenue	\$ 22,316	—	\$ 5,169	\$ (84)	\$ 27,401
Allowance for all other customers	255	12	9	(164)	112
Total allowance for doubtful accounts	<u>\$ 22,571</u>	<u>\$ 12</u>	<u>\$ 5,178</u>	<u>\$ (248)</u>	<u>\$ 27,513</u>

(1) Represents amounts billed but where collectibility is not probable based on customer collection experience.

(2) Write off of uncollectible accounts after all collection efforts have been exhausted.

CABS revenue	<u>Billed</u>	<u>Revenue recognized</u>	<u>Billings deemed not probable of collection(1)</u>
Year ended December 31, 2015	\$15,617	\$ 8,454	\$ 7,163
Year ended December 31, 2016	19,838	9,344	10,494
Six months ended June 30, 2017 (Unaudited)	9,550	4,381	5,169

(1) Represents amounts billed but where collectibility is not probable based on customers' collection experience.

Accrued expenses consisted of the following:

	<u>December 31,</u>		<u>June 30,</u>
	<u>2015</u>	<u>2016</u>	<u>2017</u>
Accrued expense	\$ 5,767	\$ 6,853	\$ 6,202
Accrued compensation and benefits	4,262	4,373	2,883
Accrued sales, use, and telecom related taxes	4,647	2,769	2,635
Other accrued expenses	915	654	951
Total accrued expenses	<u>\$15,591</u>	<u>\$14,649</u>	<u>\$ 12,671</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In Thousands Except Share and per Share Amounts)

5. Property and Equipment

Property and equipment, net consist of the following:

	December 31,		June 30,
	2015	2016	2017
Furniture and fixtures	\$ 697	\$ 680	\$ 680
Computer and office equipment	8,791	7,539	7,472
Telecommunications equipment	13,376	13,718	15,208
Leasehold improvements	392	453	536
Software development costs	11,637	13,676	14,722
Automobile	10	10	10
Total cost	34,903	36,076	38,628
Less—accumulated depreciation	(24,646)	(24,896)	(27,066)
Total property and equipment, net	\$ 10,257	\$ 11,180	\$ 11,562

The Company recognized depreciation expense, which includes amortization of capitalized software development costs, as follows:

	Year Ended		Six Months Ended	
	December 31,	December 31,	June 30,	
	2015	2016	2016	2017
Cost of revenue	\$5,258	\$4,574	\$2,359	\$2,083
Research and development	21	29	50	23
Sales and marketing	16	21	10	13
General and administrative	872	627	356	282
Total depreciation expense	\$6,167	\$5,251	\$2,775	\$2,401

The Company capitalizes the costs to design software for internal use related to the development of its platform during the application development stage of the projects. The costs are primarily comprised of salaries and benefits of the projects' engineers and product development teams. Internally developed software is reported at cost less accumulated amortization. Amortization begins once the project is substantially complete and ready for its intended use. The Company amortizes the asset on a straight-line basis over the useful life, which is estimated to be three years. Costs incurred prior to the application development stage, maintenance activities or minor upgrades are expensed in the period incurred. Unamortized software development costs were approximately \$4,843 and \$4,056 as of December 31, 2015 and 2016, respectively, and \$3,963 as of June 30, 2017 (unaudited). Amortization expense related to capitalized software development costs were \$2,842 and \$2,820 for the years ended December 31, 2015 and 2016, respectively, and \$1,836 and \$1,136 for the six months ended June 30, 2016 and 2017 (unaudited), respectively.

The Company recognized an impairment of \$71 and \$91 during the years ended December 31, 2015 and 2016, respectively, related to capitalized software development costs that provided no future benefit and therefore were impaired. This expense is reflected within general and administrative expenses in the accompanying consolidated statements of operations. No indicators of impairment were identified for the six months ended June 30, 2017 (unaudited).

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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6. Intangible Assets

Intangible assets consisted of the following as of December 31, 2015:

	<u>Gross Amount</u>	<u>Accumulated Amortization</u>	<u>Net Carrying Value</u>	<u>Amortization Period (Years)</u>
Customer relationships	\$10,396	\$ (2,512)	\$ 7,884	20
Tradenname	980	(237)	743	20
Domain name and related trademarks	2,678	(2,004)	674	3-7
Licenses, amortizable	341	(341)	—	2
Non-compete agreements	139	(136)	3	2-5
Developed technology	775	(775)	—	3
Licenses, indefinite lives	764	—	764	Indefinite
Total intangible assets, net	<u>\$16,073</u>	<u>\$ (6,005)</u>	<u>\$ 10,068</u>	

Intangible assets consisted of the following as of December 31, 2016:

	<u>Gross Amount</u>	<u>Accumulated Amortization</u>	<u>Net Carrying Value</u>	<u>Amortization Period (Years)</u>
Customer relationships	\$10,396	\$ (3,032)	\$ 7,364	20
Domain name and related trademarks	2,678	(2,324)	354	3-7
Licenses, amortizable	341	(341)	—	2
Non-compete agreements	139	(139)	—	2-5
Developed technology	775	(775)	—	3
Licenses, indefinite lives	764	—	764	Indefinite
Total intangible assets, net	<u>\$15,093</u>	<u>\$ (6,611)</u>	<u>\$ 8,482</u>	

Intangible assets consisted of the following as of June 30, 2017 (unaudited):

	<u>Gross Amount</u>	<u>Accumulated Amortization</u>	<u>Net Carrying Value</u>	<u>Amortization Period (Years)</u>
Customer relationships	\$10,396	\$ (3,292)	\$ 7,104	20
Domain name and related trademarks	2,678	(2,483)	195	3-7
Licenses, amortizable	341	(341)	—	2
Non-compete agreements	139	(139)	—	2-5
Developed technology	775	(775)	—	3
Licenses, indefinite lives	764	—	764	Indefinite
Total intangible assets, net	<u>\$15,093</u>	<u>\$ (7,030)</u>	<u>\$ 8,063</u>	

Amortization expense for definite lived intangible assets was \$908 and \$891 for the years ended December 31, 2015 and 2016, respectively, and \$446 and \$420 for the six months ended June 30, 2016 and 2017 (unaudited), respectively. The weighted average amortization period for all definite lived intangible assets is 19 years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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Future estimated amortization expense subsequent to June 30, 2017 (unaudited) is as follows:

	<u>Amount</u>
2017	\$ 419
2018	555
2019	520
2020	520
2021	520
Thereafter	4,765
	<u>\$7,299</u>

Costs associated with the acquisition and transfer of the CLEC perpetual licenses from other entities have been capitalized and have an indefinite life. The Company evaluates these indefinite lived intangible assets on an annual basis to assess if any impairment exists. The Company performed its annual assessment on December 31, 2015 and 2016 and concluded no impairment exists.

As part of its annual evaluation of its intangibles, the Company re-evaluated its marketing and branding usage of the trade name assets acquired in the Dash acquisition and concluded there was no further benefit from the use of the trade name. The Company impaired the asset and recognized a loss of \$695, which is reflected within general and administrative expenses in the accompanying consolidated statements of operations and comprehensive (loss) income for the year ended December 31, 2016.

7. Debt

In September 2008, the Company entered into a Loan and Security Agreement which included a revolving line of credit with a bank. Substantially all assets of the Company were pledged as a Security to the Loan and Security Agreement. This agreement was amended several times to increase the Company's borrowing limit and extend the maturity date. On December 14, 2015, the Loan and Security Agreement was amended to increase the Company's borrowing limit to \$25,000 and to extend the maturity through December 14, 2017. The outstanding borrowing under the Loan and Security Agreement at December 31, 2015 was \$17,000, and the Company was in compliance with all financial and non-financial covenants at December 31, 2015.

On February 24, 2016, the Loan and Security Agreement was amended to add the ability to include an outstanding letter of credit as an advance on the revolving line of credit. On March 28, 2016 the Loan and Security Agreement was further amended to update certain covenants for 2016 performance metrics. On December 1, 2016, the Company paid the Loan and Security Agreement in full.

On November 4, 2016, the Company entered into a Credit and Security Agreement with a syndication of four banks. The agreement includes a \$40,000 term loan, and a \$25,000 revolving loan, which includes a swing line of up to \$1,000 and limits letters of credit commitments to a maximum of \$2,500. Substantially all assets of the Company are pledged as security to the Credit and Security Agreement. The term of the Credit and Security Agreement is five years and matures on November 3, 2021. The interest rate used for the debt is based, at the Company's election, on either the Federal Funds Effective Rate or LIBOR plus a stated margin, as defined in the Credit and Security Agreement. Once the Company repays any portion of the term loan, it cannot be re-borrowed. The Company is entitled to borrow and repay and borrow under the revolving loan at any time during the term of the Credit and Security Agreement. This agreement requires the Company to meet a certain leverage ratio and minimum debt service coverage ratio each quarter on a trailing 12-month basis.

As of December 31, 2016 and June 30, 2017 (unaudited), the Company had \$40,000 and \$39,000, respectively, outstanding on the term loan and \$5,000 and \$2,500, respectively, on the revolving loan and was in

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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compliance with all financial and non-financial covenants for all periods presented. The available borrowing under the Credit and Security Agreement was \$22,500 as of June 30, 2017 (unaudited). Beginning on March 31, 2017, the term loan is payable in consecutive equal quarterly installments with the balance payable in full on the term loan maturity date. Future payments under the term loan subsequent to June 30, 2017 (unaudited) are as follows:

	Amount
2017	\$ 1,000
2018	3,000
2019	3,000
2020	4,000
2021	28,000
	\$39,000

8. Segment and Geographic Information

The Company has two operating and reportable segments. Segments are evaluated based on revenue and gross profit. The CODM uses more than one measure of the segment's profit; accordingly the Company has reported gross profit, which is the measure that is most consistent with the measure in the Company's consolidated statements of operations. The Company does not allocate operating expenses, interest expense or income tax expense to its segments. Accordingly, the Company does not report such information. Additionally, the CODM does not evaluate the Company's operating segments using discrete asset information. The segments share the majority of the Company's assets. Therefore, no segment asset information is reported.

	Year Ended December 31,		Six Months Ended June 30,	
	2015	2016	2016	2017
	(unaudited)			
CPaaS				
Revenue	\$101,502	\$117,078	\$56,651	\$63,194
Cost of revenue	64,760	71,218	35,379	37,147
Gross profit	\$ 36,742	\$ 45,860	\$21,272	\$26,047
Other				
Revenue	\$ 36,299	\$ 35,057	\$18,118	\$15,957
Cost of revenue	14,482	14,000	7,283	6,713
Gross profit	\$ 21,817	\$ 21,057	\$10,835	\$ 9,244
Consolidated				
Revenue	\$137,801	\$152,135	\$74,769	\$79,151
Cost of revenue	79,242	85,218	42,662	43,860
Gross profit	\$ 58,559	\$ 66,917	\$32,107	\$35,291

All assets were held in the United States during the years ended December 31, 2015, December 31, 2016, and the six months ended June 30, 2017 (unaudited).

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The Company generates its revenue primarily in the United States. Revenue by geographical area is detailed in the table below (which is determined based on the customer billing address):

	Year Ended December 31,		Six Months Ended June 30,	
	2015	2016	2016	2017
United States	\$137,514	\$151,618	\$74,541	\$78,903
International	287	517	228	248
Total	<u>\$137,801</u>	<u>\$152,135</u>	<u>\$74,769</u>	<u>\$79,151</u>

9. Redeemable Convertible Preferred Stock and Stockholders' Deficit

Redeemable Convertible Preferred Stock

As of January 1, 2010, the Company had authorized 5,000,000 shares of Redeemable Convertible Preferred Stock ("Series A preferred stock"). On February 22, 2011, the Company amended and restated its Certificate of Incorporation such that the Company authorized 1,200,000 shares of preferred stock, all of which have been designated as Series A preferred stock.

On February 22, 2011, the Company completed the issuance of 663,907 shares of Series A preferred stock at \$30.8358 per preferred share. On March 24, 2011, the Company completed the final closing of 46,093 shares of Series A preferred stock at \$30.8358 per preferred share.

Pursuant to the Spin-Off each holder of Series A preferred stock received a share of Republic Class A voting common stock for each share of Series A preferred stock held by such holder equal to the number of shares of Class A common stock into which such share of Series A preferred stock is then convertible.

As of December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited), 710,000 shares of Series A preferred stock at \$30.8358 per preferred share were issued and outstanding.

Conversion

Each share of Series A preferred stock shall be convertible, at the option of the shareholder, into such number of fully paid and non-assessable shares of common stock as is determined by dividing the Series A original issue price by the Series A conversion price in effect at the time of the conversion. The Series A conversion price is initially equal to \$12.3343 and is subject to adjustment related to dilutive transactions.

Each share of Series A preferred stock shall automatically be converted into fully paid, nonassessable shares of Class A common stock at the then effective conversion rate specified for such shares of Series A preferred stock (i) immediately prior to the closing of a firm commitment underwritten initial public offering pursuant to an effective registration statement filed under the Securities Act of 1933, as amended, covering the offer and sale of the Company's common stock, provided that the per share price exceeds \$61.37 or (ii) upon the receipt by the Company of a written request for such conversion from the holders of a majority of the preferred stock then outstanding.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
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Liquidation Preference

In the event of any Liquidation Event or Deemed Liquidation Event, the holders of Series A, preferred stock shall be entitled to receive, in preference to any distribution of the proceeds to the holders of common stock, an amount per share equal to the greater of (1) an amount equal to the original issue price for Series A preferred stock plus declared but unpaid dividends on such share, plus the product of (a) the number of days elapsed since issuance divided by 365, multiplied by (b) 0.08 multiplied by (c) the Series A original issue price, or (2) such amount as would have been payable had all shares of Series A preferred stock had been converted to common stock immediately prior to such Liquidation or Deemed Liquidation Event. If the proceeds thus distributed among the holders of the Series A preferred stock are insufficient to permit payment to such holders of the full preferential amounts, then the entire proceeds available for distribution shall be distributed ratably. Upon completion of the distribution referred to above, all of the remaining proceeds available for distribution shall be distributed to the holders of the Company's common stock pro rata based on the number of common stock held by each. As of December 31, 2015, December 31, 2016 and June 30, 2017, the liquidation preference totaled \$30,392, \$32,148 and \$33,569 (unaudited), respectively.

Redemption

Shares of Series A preferred stock shall be redeemed by the Company out of funds lawfully available at a price equal to the Series A original issue price per share, plus all declared but unpaid dividends thereon, in three annual installments commencing not more than 60 days after receipt by the Company at any time on or after December 31, 2020, from the holders of a majority of the then-outstanding shares of Series A preferred stock. At each redemption date, the Company shall redeem, on a pro-rata basis in accordance with the number of shares of Series A preferred stock owned by each holder, that number of outstanding shares of Series A preferred stock determined by dividing the total number of shares of Series A preferred stock outstanding by the number of remaining redemption dates (including the redemption date to which such calculation applies).

Voting Rights

The holders of Series A preferred stock shall be entitled to cast the number of votes equal to the number of whole shares of common stock into which the shares of Series A preferred stock are convertible as of the record date for determining stockholders entitled to vote on such matter. Holders of Series A preferred stock shall vote together with the holders of common stock as a single class. The holders of record of the shares of Series A preferred stock, exclusively and as a separate class, shall be entitled to elect one director of the Company.

The Company may not, without the approval of the holders of record of a majority of the shares of Series A preferred stock, as a separate class, undertake certain actions as specified in the Certificate of Incorporation, as amended and restated as of February 22, 2011 and as subsequently amended.

Dividends

The amount of any dividend on an outstanding share of Series A preferred stock is determinable based upon the number of shares of common stock into which such Series A preferred stock is then convertible based upon the original issuance price of a share of Series A preferred stock of \$30.8358 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A preferred stock. During the years ended December 31, 2015, December 31, 2016, six months ended June 30, 2017 (unaudited) and the year ended December 31, 2016, no dividends had been declared.

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Common Stock

As of January 15, 2015, the Company had authorized 22,966,275 shares of common stock, of which 20,000,000 shares have been designated as Class A common stock and 2,966,275 have been designated Class B non-voting stock. On May 6, 2015, the Company amended and restated its Certificate of Incorporation such that the Company authorized 23,091,275 shares of common stock, of which 20,000,000 shares have been designated as Class A common stock and 3,091,275 have been designated Class B non-voting stock.

On December 28, 2015, the Company amended and restated its Certificate of Incorporation such that the Company authorized 23,341,275 shares of common stock, of which 20,000,000 shares have been designated as Class A common stock and 3,341,275 have been designated Class B non-voting stock.

As of December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited), 11,542,158, 11,779,975 and 11,791,420 shares of Class A voting common stock were issued and outstanding at \$0.001 par value per share, respectively.

As of December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited), 18,590, 18,590 and 34,840 shares of Class B non-voting common stock were issued and outstanding at \$0.001 par value per share, respectively.

The Company has reserved the following shares of common stock for issuance in connection with:

	Class A common stock			Class B common stock		
	As of December 31,		As of June 30,	As of December 31,		As of June 30,
	2015	2016	2017 (Unaudited)	2015	2016	2017 (Unaudited)
Series A preferred stock	710,000	710,000	710,000	—	—	—
Stock options issued and outstanding—2001 plan	612,700	389,315	367,462	—	—	—
Stock options issued and outstanding—2010 plan	—	—	—	3,047,382	3,192,926	3,237,397
Common stock warrants outstanding	84,164	64,691	64,691	—	—	—
Possible future issuances under 2010 stock option plan	—	—	—	273,248	131,794	69,037

Voting Rights

The holders of Class A common stock are entitled to one vote for each share of common stock and holders of Class B non-voting common stock shall have no voting rights. The holders of record of the shares of common stock, exclusively and as a separate class, shall be entitled to elect the remaining directors of the Company.

The Voting Agreement requires that each stockholder vote for and elect the Company's two founders, who are stockholders and officers, as members of the Board of Directors.

Dividends

The Company shall not declare, pay or set aside any dividends on Class A voting or Class B non-voting common stock unless the holders of Series A preferred stock first receive, or simultaneously receive, a dividend on each outstanding share of Series A preferred stock. During the years ended December 31, 2015, December 31, 2016 and the six months ended June 30, 2017 (unaudited) no dividends were declared.

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As of November 30, 2016, dividend payments are subject to a restriction in the Company's Loan and Security Agreement that the Company shall not pay any dividends or any other distribution or payment on account of or in redemption, retirement or purchase of any capital stock through the term of the agreement.

Stock Purchase Warrants

In connection with four notes payable issued December 20, 2010, the Company granted stock purchase warrants to the previous debt holders. The warrants were exercisable for 30,470 shares of the Company's Class A common stock at an exercise price of \$5.80 per share. The outstanding warrants to purchase 15,844 shares of the Company's Class A common stock issued with the 2010 debt expire on December 31, 2017.

The Company granted other stock purchase warrants in 2011 that were exercisable for 43,847 shares of the Company's Class A common stock at an exercise price \$0.001 per share. The outstanding warrants to purchase 39,000 shares of the Company's Class A common stock expire on March 25, 2018.

Further warrants to purchase 9,847 shares of the Company's Class A common stock were granted in 2011 at an exercise price of \$5.80 per share, which expire on February 22, 2018.

Pursuant to the Spin-Off, each holder of a warrant to purchase common stock was issued a warrant to purchase shares of Republic Class A voting common stock with equivalent economic terms. As of December 31, 2015, December 31, 2016 and June 30, 2017 (unaudited), a total of 84,164, 64,691 and 64,691 shares of common stock were reserved for the issuance of stock purchase warrants.

Spin-Off

Pursuant to the Spin-Off, (i) each holder of Class A common stock received one share of Republic Class A common stock for each share of Class A common stock held by such holder, (ii) each holder of Class B non-voting common stock received one share of Republic Class B non-voting common stock for each share of Class B non-voting common stock held by such holder and (iii) each holder of Series A preferred stock received a number of shares of Republic Class A voting common stock for each share of Series A preferred stock held by such holder equal to the number of shares of Class A common stock into which such share of Series A preferred stock is then convertible.

10. Stock Based Compensation

During 2001, the Company adopted the Bandwidth.com, Inc. Stock Option Plan (the 2001 Plan). As of July 26, 2010, the Company adopted the 2010 Equity Compensation Plan (the 2010 Plan). As of December 31, 2011, a total of 3,204,940 shares of common stock were reserved for issuance under the 2001 Plan and the 2010 Plan. On May 9, 2014, the 2010 Plan was amended to provide for a total of 2,966,275 shares of common stock reserved for issuance under the 2010 Plan. On May 6, 2015, the 2010 Plan was amended to provide for a total of 3,091,275 shares of common stock reserved for issuance under the 2010 Plan. On December 28, 2015, the 2010 Plan was amended to provide for a total of 3,341,275 shares of common stock reserved for issuance under the 2010 Plan. Eligible plan participants include employees, directors and consultants. The 2001 Plan and the 2010 Plan each permit the granting of incentive stock options and non-qualified stock options.

Pursuant to the Spin-Off, (i) each holder of a Bandwidth Class A voting common stock option was granted an option to purchase Republic Class A voting common stock and (ii) each holder of a Bandwidth Class B non-voting common stock option was granted an option to purchase Republic Class B non-voting common stock (together with the Republic Class A voting common stock options). Existing Bandwidth stock options were

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adjusted (an Adjusted Option) as follows. The spread between the value of the Bandwidth Stock for which the Bandwidth Option was exercisable and the Bandwidth Option's exercise price (the Bandwidth Option Spread) was allocated based on the exercise price of and the number of shares subject to the applicable Bandwidth Class A voting common stock options or Bandwidth Class B non-voting common stock options, as the case may be, the pre-Distribution fair market value of Bandwidth Class A voting common stock or Bandwidth Class B non-voting common stock, based upon the valuation of the Company at November 30, 2016 and the fair market value of Republic Class A voting common stock or Republic Class B non-voting common stock, such that the pre-Distribution intrinsic value of each Bandwidth Class A voting common stock Option or Bandwidth Class B non-voting common stock option was allocated between the respective Republic Stock Option and the respective Adjusted Option. The other terms and conditions of the Republic Option and the Adjusted Option are the same as the Bandwidth Option in all material respects. The Adjusted Options, the Republic Class A voting common stock options and Republic Class B non-voting common stock options held by current option holders in Bandwidth became all non-qualified options at the time in which the modification took place.

The terms of the modification allow Company employees to continue to vest in stock options in Republic and Republic employees to continue to vest in stock options in Bandwidth, as long as the employees continue to be employed by their respective company. The Company will recognize compensation expense for all non-vested Bandwidth and Republic awards related to those employees that provide service to the Company.

The terms of the stock option grants are determined by the Company's Board of Directors. The Company's stock options vest based on terms in the stock option agreements, which is generally over four years. The stock options have a contractual life of ten years.

The fair value of options granted is estimated on the date of grant using the Black-Scholes-Merton option pricing model based on the assumptions in the table below.

	<u>Year Ended</u>		<u>Six Months Ended</u>	
	<u>December 31,</u>		<u>June 30,</u>	
	<u>2015</u>	<u>2016</u>	<u>2016</u>	<u>2017</u>
	<u>(Unaudited)</u>			
Expected dividend yield	0%	0%	0%	0%
Expected stock price volatility	44%	44%	44%	47%
Average risk-free interest rate	1.5%–1.9%	1.3%–2.0%	1.3%–1.6%	1.9%–2.3%
Expected life	6.2 years	6.2 years	6.2 years	6.2 years
Fair value of common stock(1)	\$9.43-9.57	\$9.57-9.60	\$9.57	\$9.60

(1) Fair value of common stock reflects adjustments to fair value as a result of the Spin-Off.

The Company uses the simplified method for purposes of determining the expected life of the options. The risk-free interest rate is based on the U.S. Treasury rates at the date of grant with maturity dates approximately equal to the expected life at the grant date. Volatility is based on the historical volatility of certain public entities that are similar to the Company as the Company does not have sufficient historical transactions of its own shares on which to base expected volatility. The Company historically has not issued any dividends and does not expect to in the future.

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The following summarizes the stock option activity for the periods presented:

	Number of Options Outstanding	Weighted- Average Exercise Price (per share)(1)	Weighted- Average Remaining Contract Life (in years)	Aggregate Intrinsic Value (in thousands)
Balance, December 31, 2015	3,660,082	6.17	5.56	\$ 11,814
Grants	210,597	9.57		
Exercised	(222,135)	2.99		1,471
Forfeited or cancelled	(66,303)	7.85		
Balance, December 31, 2016	3,582,241	6.54	5.12	11,049
Grants	94,301	9.60		
Exercised	(38,103)	5.57		159
Forfeited or cancelled	(33,580)	9.50		
Balance, June 30, 2017 (unaudited)	3,604,859	6.60	4.74	42,713
Options vested and exercisable at December 31, 2016	3,020,655	6.06	4.49	10,785
Options vested and expected to vest as of December 31, 2016	3,557,927	6.52	5.10	11,044
Options vested and exercisable at June 30, 2017 (unaudited)	3,136,340	6.18	4.15	38,517
Options vested and expected to vest as of June 30, 2017 (unaudited)	3,583,595	6.59	4.71	42,525

(1) Weighted-average exercise price (per share) reflects adjustments to exercise price as a result of the Spin-Off.

Aggregate intrinsic value represents the total pre-tax intrinsic value, which is computed based on the difference between the option exercise price and the fair value of the Company's common stock. This amount changes based on the fair value of the Company's stock.

The weighted average grant-date fair value (adjusted as a result of the Spin-Off) of stock options granted for the years ended December 31, 2015, December 31, 2016 and during the six months ended June 30, 2017 (unaudited) was \$4.24, \$4.06 and \$4.34 per share, respectively.

The total estimated grant date fair value of options vested was \$2,107, \$2,082 and \$627 during the years ended December 31, 2015 and 2016 and the six months ended June 30, 2017 (unaudited).

The Company recognized total stock-based compensation expense in continuing operations as follows:

	Year Ended December 31,		Six Months Ended June 30,	
	2015	2016	2016	2017 (Unaudited)
Cost of revenue	\$ 45	\$ 61	\$ 28	\$ 41
Research and development	189	138	78	62
Sales and marketing	239	182	104	70
General and administrative	3,020	989	644	317
Total	<u>\$3,493</u>	<u>\$1,370</u>	<u>\$854</u>	<u>\$490</u>

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The Company will recognize \$1,850 of compensation cost in the future for stock-based employee compensation over the weighted-average of 2.5 years for stock options granted before June 30, 2017.

11. Commitments and Contingencies

Operating Leases

The Company leases office space under operating lease agreements that expire at various dates beginning in 2016 and extend through 2022 in several locations within the United States including its headquarters, which is located in Raleigh, NC. On September 26, 2016, the Company amended its operating lease agreement with one of its landlords. The 63-month lease, begins on April 14, 2017, provides for an additional 40,657 square feet of office space as well as an extension of the termination date for the lease of approximately 128,200 square feet of office space. The leases contain escalation clauses and various landlord concessions including a tenant improvement allowance. The Company recognizes the total minimum lease payments on a straight-line basis over the term of the lease.

Future minimum lease payments required under the leases as of June 30, 2017 (unaudited), for each of the years ending December 31, are as follows:

	<u>Amount</u>
2017	\$ 1,777
2018	3,631
2019	3,700
2020	3,838
2021	3,873
2022 and thereafter	2,018
	<u>\$18,837</u>

The Company incurred rent expense of \$1,656 and \$2,003 for the years ended December 31, 2015 and 2016, respectively, and \$845 and \$1,380 for the six months ended June 30, 2016 and 2017 (unaudited), respectively, which is included in general and administrative expenses in the consolidated statements of operations.

In conjunction with the Spin-Off, the Company signed a Facilities Service Agreement with Republic in which the Company agreed to sub-lease 40,657 square feet of office space to Republic. The sub-lease is non-cancellable and extends to May 2022. For the year ended December 31, 2016 and the six months ended June 30, 2017 (unaudited), the Company recorded a reduction of rent expense of \$47 and \$446, respectively, which is included in general and administrative expenses in the consolidated statements of operations and comprehensive income (loss).

Future minimum lease receipts as of June 30, 2017 (unaudited) for each of the years ending December 31, are as follows:

	<u>Amount</u>
2017	\$ 460
2018	1,020
2019	1,042
2020	1,065
2021	1,089
2022 and thereafter	594
	<u>\$5,270</u>

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Capital Leases

The Company leases various equipment under leases accounted for as capital leases. These leases have various expiration dates ranging from March 2016 through October 2018. As of December 31, 2015, carrying value and accumulated depreciation of the assets under capital leases recorded by the Company were \$1,819 and \$1,682, respectively. As of December 31, 2016, cost and accumulated depreciation of the assets under capital leases recorded by the Company were \$1,951 and \$1,807, respectively. For the six months ended June 30, 2017 (unaudited), cost and accumulated depreciation of the assets under capital leases recorded by the Company were \$1,951 and \$1,832, respectively.

Remaining payments due on the Company's capital lease obligations as of June 30, 2017 (unaudited), for each of the years ending December 31, are as follows:

	<u>Amount</u>
2017	\$ 50
2018	91
Less amount representing interest	<u>—</u>
	141
Less current maturities	<u>99</u>
	<u>\$ 42</u>

Contractual Obligations

On October 25, 2015, the Company entered into an agreement with a telecommunications service provider. The service agreement requires the Company to pay a monthly recurring charge beginning on January 1, 2016 associated with the services received. The service agreement is non-cancelable and contains annual minimum commitments of \$1,200 to be fulfilled over five years or for as long as the Company continues to receive services from this vendor. In addition, the Company has other noncancellable purchase obligations totaling \$900 as of December 31, 2016.

Legal Matters

The Company is involved as a defendant in various lawsuits alleging that the Company failed to bill, collect and remit certain taxes and surcharges associated with the provision of 911 services pursuant to applicable laws in various jurisdictions. In August 2016, the Company received a Civil Investigative Demand from the Consumer Protection Division of the North Carolina Department of Justice, though no formal complaint has been filed in connection with that investigation. The North Carolina Department of Justice is investigating the billing, collection and remission of certain taxes and surcharges associated with 911 service pursuant to applicable laws of the State of North Carolina.

In April 2016, the Company filed counterclaims against MCI Communications Services, Inc. d/b/a Verizon Business and Verizon Select Services, Inc. (collectively, "Verizon") in the United States District Court for the Northern District of Texas. The Company is pursuing collection of unpaid intercarrier compensation charges for providing switched access services related to the exchange of telecommunications traffic with Verizon entities across the United States. Verizon's prior September 2014 complaint against us and other defendants regarding intercarrier compensation charges for providing switched access services related to the exchange of telecommunications traffic has been dismissed without prejudice, but remains subject to appeal.

While the results of these legal proceedings cannot be predicted with certainty, in the opinion of management, the ultimate resolution of these matters will not have a material adverse effect on the Company's

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financial position or results of operations. The Company cannot estimate reasonably possible losses or a range of reasonably possible loss with respect to these legal proceedings.

12. Employee Benefit Plan

The Company sponsors a defined contribution 401(k) plan, which allows eligible employees to defer a portion of their compensation. The Company, at its discretion, may make matching contributions. The Company made matching contributions of \$698 and \$716 for the years ended December 31, 2015 and 2016, respectively, and \$382 and \$415 for the six months ended June 30, 2016 and 2017 (unaudited), respectively.

13. Income Taxes

Provision (benefit) for income taxes from continuing operations consists of the following:

	Year Ended December 31,	
	2015	2016
Current:		
Federal	\$ —	\$ (66)
State	104	58
Total	<u>104</u>	<u>(8)</u>
Deferred:		
Federal	272	(9,999)
State	32	(1,087)
Total	<u>304</u>	<u>(11,086)</u>
Total provision (benefit) for income taxes	<u>\$408</u>	<u>\$(11,094)</u>

As a result of the Spin-Off of Republic, the historic performance of Bandwidth and future projections; the Company determined there was sufficient evidence to support the realization of deferred tax assets and released the valuation allowance in 2016.

The following table presents a reconciliation of the statutory federal tax rate and the Company's effective tax rate for the years ended December 31, 2015 and 2016:

	Year Ended December 31,	
	2015	2016
Federal	34.00%	34.00%
State	2.52	4.18
Non-deductible expenses	1.02	5.03
Research credit	(3.17)	(2.32)
Stock-based compensation	11.00	(24.49)
Change in valuation allowance	(42.45)	(98.62)
Deferred tax rate change	0.76	0.80
Other	1.85	4.04
Total	<u>5.53%</u>	<u>(77.38)%</u>

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The following table presents the significant components of the Company's deferred tax assets and liabilities:

	Year Ended December 31,	
	2015	2016
Deferred tax assets:		
Allowance for doubtful accounts	\$ 91	\$ 95
Accrued liabilities	1,731	2,011
Deferred revenue	78	241
Intangibles	182	237
Stock-based compensation	3,613	6,458
Tax credits	1,571	2,369
Net operating losses	7,464	4,249
Other	69	59
Total deferred tax assets	14,799	15,719
Less: valuation allowance	(12,633)	—
Net deferred tax assets	2,166	15,719
Deferred tax liability:		
Property and equipment	2,141	2,083
Goodwill	462	654
Other liability	180	288
Total deferred tax liabilities	2,783	3,025
Net deferred tax asset (liability)	\$ (617)	\$ 12,694

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 the impact of the Spin-Off of Republic, the historic performance of Bandwidth, 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. Based on an analysis of these factors, the Company determined that in 2016, subsequent to the Spin-Off of Republic, sufficient evidence existed to support the realization of all deferred tax assets and therefore released the valuation allowance in the fourth quarter of 2016. The valuation allowance decreased from \$14,729 at December 31, 2015 to \$0 at December 31, 2016. Of this amount, \$14,138 was reflected as a component of continuing operations and \$591 was transferred to Republic pursuant to the Spin-Off.

As of December 31, 2016, the Company had \$11,049 in federal net operating loss carryforwards and \$2,863 in federal tax credits. If not utilized, the federal net operating loss and tax credit carryforwards will expire at various dates beginning in 2035 and 2030, respectively.

As of December 31, 2016, the Company had approximately \$13,172 in state net operating loss carryforwards. If not utilized, the state net operating loss carryforwards will expire at various dates beginning in 2020.

A limitation may apply to the use of the net operating loss and credit carryforwards, under Internal Revenue Code (IRC) §382 and §383, 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; however, this limitation is not expected to impact the Company's ability to realize these deferred tax assets.

The Company elected to early adopt ASU 2016-09 effective January 1, 2016. Subsequent to adoption, the primary tax impact will be the recognition of excess tax benefits in the provision for income tax rather than in

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additional paid-in capital. Under this guidance all excess tax benefits (windfalls) and deficiencies (shortfalls) related to employee stock compensation will be recognized within income tax expense. Under prior guidance windfalls were recognized to additional paid-in capital to the extent they resulted in a reduction of cash tax payments and shortfalls were only recognized to the extent they exceeded the pool of windfall tax benefits. The new guidance eliminates the requirement to delay the recognition of excess tax benefits until they reduce current taxes payable. As such, the Company included \$420 as a cumulative-effect adjustment for previously unrecognized excess tax benefits in opening accumulated deficit as of January 1, 2016.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	<u>2015</u>	<u>2016</u>
Unrecognized tax benefits—January 1,	\$377	\$456
Gross increases—tax positions in prior period	—	104
Gross decreases—tax positions in prior period	—	—
Gross increases—tax positions in current period	79	111
Settlement	—	—
Lapse of statute of limitations	—	—
Unrecognized tax benefits—December 31,	<u>\$456</u>	<u>\$671</u>

If the \$671 of unrecognized tax benefit is recognized, the effective tax rate would be impacted.

The Company had not incurred any material tax interest or penalties with respect to income taxes in the years ended December 31, 2015 and 2016.

The Company expects no material changes in its uncertain tax positions in the 12 months following December 31, 2016.

The Company files U.S. federal income tax returns, as well as income tax returns in many U.S. states. The tax years 2007-2016 remain open to examination by the major jurisdictions in which the Company is subject to tax due to the carryforward of net operating losses.

14. Related Parties

In connection with the Spin-Off on November 30, 2016, the Company and Republic entered into certain agreements in order to govern the ongoing relationships between the two companies after the Spin-Off and to provide for an orderly transition. The agreements include a Transition Services Agreement, Facilities Sharing Agreement, Tax Sharing Agreement, and Master Services Agreement. In connection with the agreements, the Company assessed the relationship with Republic under guidance for variable interest entities. The assessment determined that Republic is a VIE in which the Company is not a primary beneficiary.

The Transition Services Agreement specifies certain services to be provided by the Company for a period of up to two years from the Spin-Off. These services include insurance administration, billing and collections, and other technical support as well as legal services related to intellectual property. The Company is compensated by Republic for these services based on costs incurred by the Company. For the period of December 1, 2016 to December 31, 2016 and the six months ended June 30, 2017 (unaudited), the Company received compensation of \$134 and \$511, respectively.

In addition, there was approximately \$0 and \$51 due from Republic as of December 31, 2016 and June 30, 2017 (unaudited), respectively, which was recorded within accounts receivable in the accompanying consolidated balance sheet.

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The Facilities Sharing Agreement specifies that the Company will sublet office space to Republic for at least 63 months. During the period of December 1, 2016 to December 31, 2016 and six months ended June 30, 2017 (unaudited), the Company sublet of office space to Republic. For the year ended December 31, 2016 and the six months ended June 30, 2017 (unaudited), the Company received rental payments of \$47 and \$446, respectively, which is included in general and administrative expenses in the consolidated statements of operations and comprehensive income (loss). No amounts were due to the Company under the Facilities Sharing Agreement as of December 31, 2016 and June 30, 2017 (unaudited).

The Tax Sharing Agreement governs rights and obligations after the Spin-Off regarding income taxes and other taxes, including tax liabilities and benefits, attributes, returns and contests. There are no amounts outstanding or payable under this agreement as of December 31, 2016 or June 30, 2017 (unaudited).

The Master Services Agreement specifies certain wholesale telecommunications services to be provided by the Company. The agreement is cancellable at any time by either party. During the period of December 1, 2016 to December 31, 2016 and the six months ended June 30, 2017 (unaudited), the Company provided telecommunication services to Republic of \$173 and \$1,073, respectively. The Company recognized such amounts as revenue in the accompanying statement of operations and comprehensive income (loss) for the period of December 1, 2016 to December 31, 2016 and the six months ended June 30, 2017 (unaudited). As of June 30, 2017 (unaudited), the Company had a receivable of \$191 under the Master Services Agreement.

15. Basic and Diluted Income (Loss) per Common Share

The Company uses the two-class method to compute net income (loss) per common share because it has issued securities, other than common stock, that contractually entitle the holders to participate in dividends and earnings. These participating securities include the Company's redeemable convertible preferred stock which have non-forfeitable rights to participate in any dividends declared on the Company's common stock. The two-class method requires earnings for the period to be allocated between common stock and participating securities based upon their respective rights to receive distributed and undistributed earnings.

Under the two-class method, for periods with net income, basic net income per common share is computed by dividing the net income attributable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Net income attributable to common stockholders is computed by subtracting from net income the portion of current period earnings that the participating securities would have been entitled to receive pursuant to their dividend rights had all of the period's earnings been distributed. No such adjustment to earnings is made during periods with a net loss, as the holders of the participating securities have no obligation to fund losses.

Diluted net income (loss) per common share is computed under the two-class method by using the weighted average number of shares of common stock outstanding, plus, for periods with net income attributable to common stockholders, the potential dilutive effects of stock options and warrants. The Company analyzed the potential dilutive effect of any outstanding dilutive securities under the "if-converted" method and treasury-stock method when calculating diluted earnings per share, in which it is assumed that the outstanding participating securities convert into common stock at the beginning of the period or date of issuance, if later. The Company reports the more dilutive of the approaches (two-class or "if-converted") as its diluted net income per share during the period.

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The components of basic and diluted earnings per share are as follows (in thousands, except share and per share amounts):

	<u>Year ended December 31,</u>		<u>Six Months Ended June 30,</u>	
	<u>2015</u>	<u>2016</u>	<u>2016</u>	<u>2017</u>
	(Unaudited)			
<i>Income from Continuing Operations</i>				
Income from continuing operations	\$ 6,965	\$ 25,430	\$ 7,572	\$ 4,936
Less: income allocated to participating securities	931	3,355	1,007	645
Income from continuing operations attributable to common stockholders	<u>\$ 6,034</u>	<u>\$ 22,075</u>	<u>\$ 6,565</u>	<u>\$ 4,291</u>
Income from continuing operations per share:				
Basic	\$ 0.52	\$ 1.89	\$ 0.57	\$ 0.36
Diluted	\$ 0.48	\$ 1.72	\$ 0.51	\$ 0.33
<i>Loss from Discontinued Operations</i>				
Loss from discontinued operations	\$ (13,665)	\$ (3,072)	\$ (3,011)	\$ —
Less: loss allocated to participating securities	(1,827)	(405)	(401)	—
Loss from discontinued operations attributable to common stockholders	<u>\$ (11,838)</u>	<u>\$ (2,667)</u>	<u>\$ (2,610)</u>	<u>\$ —</u>
Loss from discontinued operations per share attributable to stockholders:				
Basic	\$ (1.03)	\$ (0.23)	\$ (0.23)	\$ —
Diluted	\$ (0.95)	\$ (0.21)	\$ (0.20)	\$ —
<i>Net (Loss) Income</i>				
Net (loss) income	\$ (6,700)	\$ 22,358	\$ 4,561	\$ 4,936
Less: (loss) income allocated to participating securities	(896)	2,950	606	645
Net (loss) income attributable to common stockholders	<u>\$ (5,804)</u>	<u>\$ 19,408</u>	<u>\$ 3,955</u>	<u>\$ 4,291</u>
Net (loss) income per share:				
Basic	\$ (0.50)	\$ 1.66	\$ 0.34	\$ 0.36
Diluted	\$ (0.47)	\$ 1.51	\$ 0.31	\$ 0.33
<i>Weighted Average Number Of Common Shares Outstanding</i>				
Basic	11,497,727	11,678,568	11,580,783	11,806,619
Dilutive effect of stock options and warrants	958,813	1,192,064	1,239,551	1,170,987
Diluted	<u>12,456,540</u>	<u>12,870,632</u>	<u>12,820,334</u>	<u>12,977,606</u>

The following common share equivalents have been excluded from the calculation of weighted-average common shares outstanding because the effect is anti-dilutive for the periods presented:

	<u>Year ended December 31,</u>		<u>Six Months Ended June 30,</u>	
	<u>2015</u>	<u>2016</u>	<u>2016</u>	<u>2017</u>
	(Unaudited)			
<i>Anti-dilutive Disclosure</i>				
Series A redeemable convertible preferred stock outstanding	1,775,000	1,775,000	1,775,000	1,775,000
Stock options issued and outstanding	401,835	237,185	244,023	648,788

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In Thousands Except Share and per Share Amounts)

16. Subsequent Events

The Company has evaluated subsequent events from the consolidated balance sheet date through August 16, 2017, the date at which the audited and unaudited consolidated financial statements were available to be issued.

On August 22, 2017, a legal claim was filed in one additional jurisdiction on the basis that the Company failed to bill, collect and remit certain taxes and surcharges associated with the provision of 911 services pursuant to state law and local ordinances.

On September 1, 2017, the Company reached a separation agreement with one of its executives. The agreement resulted in a severance liability of approximately \$660 and modification of the former employee's 77,694 outstanding options to purchase common stock to accelerate the vesting period and extend the exercise term.

On September 15, 2017, Bandwidth.com, Inc. changed its name to Bandwidth Inc.

On September 19, 2017, Verizon filed a motion to permit it to assert a counterclaim against the Company in connection with the ongoing complaint related to unpaid intercarrier compensation charges.

On October 6, 2017, the Company was notified that certain additional jurisdictions within the State of Georgia intend to initiate legal proceedings against the Company in response to allegations that the Company failed to bill, collect and remit certain taxes and surcharges associated with the provision of 911 services. On October 13, 2017, the Company signed a tolling agreement with certain additional jurisdictions regarding such allegations.

On October 19, 2017, the Company approved, and on October 23, 2017 the Company amended its Certificate of Incorporation allowing the Company to change the total number of authorized shares as follows: (i) 30,000,000 shares of Common Stock, \$0.001 par value per share of which 25,000,000 shares were designated as Class A Voting Common Stock, and of which 5,000,000 shares were designated as Class B Non-Voting Common Stock and (ii) 1,200,000 shares of Preferred Stock, \$0.001 par value per share.

On October 19, 2017, the Company's Board of Directors approved, and on October 23, 2017 the Company effected, a 2.50-to-1 split of its common stock. In connection with the common stock split, each share of outstanding common stock, option to purchase common stock and warrant to purchase common stock was increased to 2.50 shares of common stock and the exercise price of each outstanding option or warrant to purchase common stock was proportionately decreased. The stock split has been reflected retrospectively in these consolidated financial statements. In connection with the stock split, the conversion ratio of each share of outstanding preferred stock also was adjusted such that each share of outstanding preferred stock converts into 2.50 shares of Class A common stock after the 2.50-to-1 split.

Number one 'hot spot' for
tech startups in the U.S. outside
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*SelfStorage.com report 2015
**Triangle Business Journal 2017. Based on an employee survey process of all nominated companies in the Research Triangle



bandwidth

PART II**INFORMATION NOT REQUIRED IN PROSPECTUS****Item 13. Other Expenses of Issuance and Distribution**

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the sale of the Class A common stock being registered. All amounts are estimates except for the Securities and Exchange Commission ("SEC"), registration fee, the FINRA filing fee and the exchange listing fee.

	Amount Paid or to Be Paid
SEC registration fee	\$ 10,583
FINRA filing fee	14,850
Exchange listing fee	125,000
Printing and engraving expenses	350,000
Legal fees and expenses	2,500,000
Accounting fees and expenses	1,200,000
Blue sky fees and expenses	15,000
Transfer agent and registrar fees and expenses	7,000
Miscellaneous expenses	27,567
Total	<u>\$ 4,250,000</u>

Item 14. Indemnification of Directors and Officers

Section 145(a) of the Delaware General Corporation Law provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), because he or she is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Section 145(b) of the Delaware General Corporation Law provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor because the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made with respect to any claim, issue or matter as to which he or she shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, he or she is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or other adjudicating court shall deem proper.

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Section 145(g) of the Delaware General Corporation Law provides, in general, that a corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify the person against such liability under Section 145 of the Delaware General Corporation Law.

In connection with the sale of common stock being registered hereby, we have entered into indemnification agreements with each of our directors and our executive officers. These agreements will provide that we will indemnify each of our directors and such officers to the fullest extent permitted by law and our second amended and restated certificate of incorporation and bylaws.

We also maintain a general liability insurance policy which covers certain liabilities of directors and officers of our company arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of Class A common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended, against certain liabilities.

Item 15. Recent Sales of Unregistered Securities

Since August 1, 2014, we sold the following securities on an unregistered basis:

- We granted to our directors, officers, employees, and consultants options to purchase an aggregate of 276,930 shares of our Old Class B common stock under our 2010 Equity Compensation Plan at exercise prices ranging from \$22.91 to \$46.00 per share. The exercise prices of these options to purchase shares of our Old Class B common stock granted between August 1, 2014 and November 30, 2016 reflect adjustments to reflect the allocation of value associated with the Spin-Off of Republic Wireless. The unadjusted exercise price of these options to purchase shares of our Old Class B common stock granted between August 1, 2014 and November 30, 2016 range from \$40.48 to \$42.39 per share.
- Holders of options to purchase shares of our Old Class B common stock exercised options to purchase an aggregate of 12,312 shares of our Old Class B Common stock at exercise prices ranging from \$25.64 to \$29.75 per share. Each holder of these exercised options exercised the applicable option prior to the Spin-Off of Republic Wireless. Giving effect to the allocation of value associated with the Spin-Off of Republic Wireless, the adjusted exercise prices of such options would have been \$14.51 to \$16.84 per share.
- Holders of options to purchase shares of our Old Class A common stock exercised options to purchase an aggregate of 139,539 shares of our Old Class A common stock at exercise prices ranging from \$4.79 to \$20.75 per share. Giving effect to the allocation of value associated with the Spin-Off of Republic Wireless, the adjusted exercise prices of such options would have been \$2.71 to \$11.74 per share.
- Holders of warrants to purchase shares of our Old Class A common stock and similar rights exercised warrants and similar rights to purchase an aggregate of 15,176 shares of our Old Class A common stock at exercise prices ranging from \$0.001 to \$25.64 per share. Giving effect to the allocation of value associated with the Spin-Off of Republic Wireless, the adjusted exercise prices of such warrants would have been \$0.001 to \$14.51 per share.
- We granted to Carmichael, Mr. Bowen and Ms. Bowen warrants to purchase an aggregate of 4,531 shares of our Old Class B common stock at an exercise price of \$6.572 per share.

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None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. We believe the offers, sales and issuances of the above securities were exempt from registration under the Securities Act (or Regulation D) by virtue of Section 4(a)(2) of the Securities Act because the issuance of securities to the recipients did not involve a public offering, or in reliance on Rule 701 because the transactions were pursuant to compensatory benefit plans or contracts relating to compensation as provided under such rule. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits.

See the Exhibit Index attached to this Registration Statement, which is incorporated by reference herein.

(b) Financial Statement Schedules.

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

EXHIBIT INDEX

<u>Exhibit number</u>	<u>Description of Exhibit</u>
1.1†	Form of Underwriting Agreement.
2.1†	Reorganization Agreement, dated as of November 30, 2016, by and between Bandwidth.com, Inc. and Republic Wireless, Inc.
3.1	Form of Second Amended and Restated Certificate of Incorporation (to be in effect upon the closing of this offering).
3.2	Form of Second Amended and Restated Bylaws (to be in effect upon the closing of this offering).
4.2†	Investors' Rights Agreement.
4.3†	Form of Buy-Sell Agreement.
5.1*	Opinion of Latham & Watkins LLP.
10.1†	Credit and Security Agreement among Bandwidth.com, Inc., Keybank National Association, Keybank Capital Markets Inc., Pacific Western Bank, Fifth Third Bank and Silicon Valley Bank, dated as of November 4, 2016.
10.2#*	Form of Indemnification Agreement between Bandwidth Inc. and each of its Executive Officers and Directors.
10.3#†	2001 Stock Option Plan and forms of awards thereunder.
10.4#†	2010 Equity Compensation Plan and forms of awards thereunder.
10.5#†	Employment Agreement, dated as of October 1, 2008, by and between Bandwidth.com, Inc. and John Murdock.
10.6#†	Employment Agreement, dated as of May 3, 2010, by and between Bandwidth.com, Inc. and W. Christopher Matton.
10.7#†	Employment Agreement, dated as of September 16, 2011, by and between Bandwidth.com, Inc. and Jeff Hoffman.
10.8#†	Employment Agreement, dated as of January 1, 2015, as amended on March 9, 2017, by and between Bandwidth.com, Inc. and David A. Morken.
10.9#†	Employment Agreement, dated as of March 1, 2017, by and between Bandwidth.com, Inc. and Henry R. Kaestner.
10.10#†	Consulting Agreement, dated as of February 22, 2010, by and between Bandwidth.com, Inc. and Carmichael Investment Partners, LLC.
10.11†	Office Lease, by and between Venture Center LLC and Bandwidth.com, Inc., dated January 22, 2013, as amended to date.
10.12†	Sublease, by and between Allied Telesis Capital Corporation and Bandwidth.com, Inc., dated December 1, 2015.
10.13†	Facilities Sharing Agreement, by and between Bandwidth.com, Inc. and Republic Wireless, Inc., dated November 30, 2016.
10.14†	Transition Services Agreement, by and between Bandwidth.com, Inc. and Republic Wireless, Inc., dated November 30, 2016.

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<u>Exhibit number</u>	<u>Description of Exhibit</u>
10.15†	<u>Transition Services Agreement, by and between Republic Wireless, Inc. and Bandwidth.com, Inc., dated November 30, 2016.</u>
10.16†	<u>Tax Sharing Agreement, by and between Bandwidth.com, Inc. and Republic Wireless, Inc., dated November 30, 2016.</u>
10.17†	<u>Employee Matters Agreement, by and between Bandwidth.com, Inc. and Republic Wireless, Inc., dated November 30, 2016.</u>
10.18†	<u>Master Services Agreement, by and between Bandwidth.com, Inc. and Republic Wireless, Inc., dated November 30, 2016.</u>
10.19†	<u>Master Service Agreement, by and between Level 3 Communications, LLC and Bandwidth.com, Inc, dated March 14, 2008, as amended to date.</u>
10.20*	Form of Conversion Lock-up Agreement between Bandwidth Inc. and the Key Holders.
10.21	<u>2017 Incentive Award Plan, and forms of award agreements thereunder.</u>
21.1†	<u>List of subsidiaries of Bandwidth Inc.</u>
23.1	<u>Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.</u>
23.2*	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
23.3†	<u>Consent of Kilpatrick Townsend & Stockton LLP.</u>
24.1†	<u>Power of Attorney (included on signature page).</u>

* To be filed by amendment.

† Previously filed.

Indicates a management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Raleigh, North Carolina, on the 27th day of October, 2017.

BANDWIDTH INC.

By: /s/ David A. Morken

David A. Morken

Cofounder, Chief Executive Officer and Chairman

Pursuant to the requirements of the Securities Act, this Registration Statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ David A. Morken</u> David A. Morken	Cofounder, Chief Executive Officer and Chairman (<i>Principal Executive Officer</i>)	October 27, 2017
<u>/s/ Jeffrey A. Hoffman</u> Jeffrey A. Hoffman	Chief Financial Officer (<i>Principal Financial Officer and Principal Accounting Officer</i>)	October 27, 2017
<u>/s/ John C. Murdock</u> John C. Murdock	President and Director	October 27, 2017
<u>*</u> Henry R. Kaestner	Cofounder and Director	October 27, 2017
<u>*</u> Brian D. Bailey	Director	October 27, 2017
<u>*</u> Douglas A. Suriano	Director	October 27, 2017

*By: /s/ W. Christopher Matton

Name: W. Christopher Matton

Title: General Counsel

BANDWIDTH INC.
SECOND AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION

Bandwidth Inc. (the “**Corporation**”), a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

- A. The Corporation was originally incorporated under the name of Bandwidth.com, Inc., and the original Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on March 29, 2001.
- B. An Amended and Restated Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on February 22, 2011, as amended.
- C. This Second Amended and Restated Certificate of Incorporation was duly adopted in accordance with Sections 242 and 245 of the General Corporation Law of the State of Delaware (the “**DGCL**”), and has been duly approved by the written consent of the requisite stockholders of the Corporation in accordance with Section 228 of the DGCL.
- D. The Certificate of Incorporation of the Corporation is hereby amended and restated in its entirety to read as follows:

ARTICLE I

The name of the Corporation is Bandwidth Inc.

ARTICLE II

The address of the Corporation’s registered office in the State of Delaware is 251 Little Falls Drive, Wilmington, New Castle County, DE 19808. The name of its registered agent at such address is Corporation Service Company.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

ARTICLE IV

A Classes of Stock. The total number of shares of capital stock that the Corporation shall have authority to issue is 130,000,000, consisting of the following: 100,000,000 shares of Class A Common Stock, par value \$0.001 per share (“**Class A Common Stock**”), 20,000,000 shares of Class B Common Stock, par value \$0.001 per share (“**Class B Common Stock**”), and 10,000,000 shares of undesignated Preferred Stock, par value \$0.001 per share (“**Preferred Stock**”).

Immediately upon the acceptance of this Second Amended and Restated Certificate of Incorporation for filing by the Secretary of State of the State of Delaware (the “**Effective Time**”), each share of the Corporation’s (a) existing one-vote Class A common stock issued and outstanding, one-vote Class A common stock held as treasury stock or warrants or options exercisable for one-vote Class A common stock immediately prior to the Effective Time, shall, automatically and without further action by any stockholder, be reclassified as, and shall become, one share of Class B Common Stock or the right to receive one share of Class B Common Stock upon exercise of such warrant or option and (b) existing no-vote Class B common stock issued and outstanding, no-vote Class B common stock held as treasury stock or options exercisable into no-vote Class B common stock immediately prior to the Effective Time, shall, automatically and without further action by any stockholder, be reclassified as, and shall become, one share of Class A Common Stock or the right to receive one share of Class A Common Stock upon exercise of such option.

B Rights of Preferred Stock. The Board of Directors of the Corporation (the “**Board of Directors**”) is authorized, subject to any limitations prescribed by law but to the fullest extent permitted by law, to provide by resolution for the designation and issuance of shares of Preferred Stock in one or more series, and to establish from time to time the number of shares to be included in each such series, and to fix the designation, powers (which may include, without limitation, full, limited or no voting powers), preferences, and relative, participating, optional or other rights of the shares of each such series and any qualifications, limitations or restrictions thereof, and to file a certificate pursuant to the applicable law of the State of Delaware (such certificate being hereinafter referred to as a “**Preferred Stock Designation**”), setting forth such resolution or resolutions.

C Vote to Increase or Decrease Authorized Shares of Preferred Stock. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of all of the outstanding shares of capital stock of the Corporation entitled to vote thereon, without a separate class vote of the holders of Preferred Stock, or any separate series votes of any series thereof, unless a vote of any such holders is required pursuant to the terms of any Preferred Stock Designation.

D No Further Issuances. Except for the issuance of Class B Common Stock issuable upon exercise of Rights outstanding at the Effective Time, the reclassification of shares of Class B Common Stock into a greater or lesser number of shares of Class B Common Stock or as a dividend payable in accordance with Article IV, Section E.2(a), the Corporation shall not at any time after the Effective Time issue any additional shares of Class B Common Stock, unless such issuance is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class B Common Stock.

E Rights of Class A Common Stock and Class B Common Stock. The relative powers, rights, qualifications, limitations and restrictions granted to or imposed on the shares of Class A Common Stock and Class B Common Stock are as follows:

1. Voting Rights.

(a) General Right to Vote Together; Exceptions. Except as otherwise expressly provided herein or required by applicable law, the holders of Class A Common Stock and Class B Common Stock shall vote together as a single class on all matters submitted to a vote of the stockholders; *provided, however*, subject to the terms of any Preferred Stock Designation, the number of authorized shares of Class A Common Stock or Class B Common Stock may be increased or

decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of the capital stock of the Corporation entitled to vote; *provided, further, however*, that a separate vote of the Class A Common Stock and the Class B Common Stock shall be required in the following circumstances:

(i) in connection with an amendment to this Second Amended and Restated Certificate of Incorporation to increase or decrease the par value of the Class A Common Stock or the Class B Common Stock, then the class impacted by such change in the par value shall be required to vote separately to approve the proposed amendment; and

(ii) in connection with an amendment to this Second Amended and Restated Certificate of Incorporation to alter or change the powers, preferences or special rights of a specific class in a manner that affected its holders adversely, then such class shall be required to vote separately to approve the proposed amendment.

(b) Votes Per Share. Except as otherwise expressly provided herein or required by applicable law, on any matter that is submitted to a vote of the stockholders, each holder of Class A Common Stock shall be entitled to one (1) vote for each such share, and each holder of Class B Common Stock shall be entitled to ten (10) votes for each such share.

2. Identical Rights. Except as otherwise expressly provided herein or required by applicable law, shares of Class A Common Stock and Class B Common Stock shall have the same rights and privileges and rank equally, share ratably and be identical in all respects as to all matters, including, without limitation:

(a) Dividends and Distributions. Shares of Class A Common Stock and Class B Common Stock shall be treated equally, identically and ratably, on a per share basis, with respect to the declaration and payment or distribution of any Distribution paid or distributed by the Corporation, unless different treatment of the shares of each such class is approved in advance by the affirmative vote of the holders of a majority of the outstanding shares of the class of stock being treated adversely, voting separately as a class; *provided, however*, that in the event a Distribution is paid in the form of Class A Common Stock or Class B Common Stock (or Rights to acquire such stock), then holders of Class A Common Stock shall receive Class A Common Stock (or Rights to acquire such stock, as the case may be), and holders of Class B Common Stock shall receive Class B Common Stock (or Rights to acquire such stock, as the case may be).

(b) Subdivision or Combination. If the Corporation in any manner subdivides or combines the outstanding shares of Class A Common Stock or Class B Common Stock, the outstanding shares of the other such class will be subdivided or combined in the same proportion and manner, unless different treatment of the shares of each such class is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A Common Stock and by the affirmative vote of the holders of a majority of the outstanding shares of Class B Common Stock, each voting separately as a class.

(c) Equal Treatment in a Change of Control or any Merger Transaction. In connection with any Change of Control Transaction, shares of Class A Common Stock and Class B Common Stock shall be treated equally, identically and ratably, on a per share basis, with respect to any consideration into which such shares are converted or any consideration paid or otherwise distributed to stockholders of the Corporation, unless different treatment of the shares of each such class is approved by the affirmative vote of the holders of a majority of the outstanding shares of Class A Common Stock and by the affirmative vote of the holders of a majority of the outstanding shares of Class B Common Stock, each voting separately as a class. Any merger or consolidation of the Corporation with or into any other entity, which is not a Change of Control Transaction, shall require approval by the affirmative vote of the holders of a majority of the outstanding shares of Class A Common Stock and by the affirmative vote of the holders of a majority of the outstanding shares of Class B Common Stock, each voting separately as a class, unless (i) the shares of Class A Common Stock and Class B Common Stock remain outstanding and no other consideration is received in respect thereof or (ii) such shares are converted on a pro rata basis into shares of the surviving or parent entity in such transaction having identical rights to the shares of Class A Common Stock and Class B Common Stock, respectively.

3. Conversion of Class B Common Stock.

(a) Voluntary Conversion. Each one (1) share of Class B Common Stock shall be convertible into one (1) share of Class A Common Stock at the option of the holder thereof at any time upon written notice to the transfer agent of the Corporation; *provided, however,* that no holder shall be permitted to voluntarily convert such holder's Class B Common Stock until the earlier to occur of (a) receipt of all regulatory approvals from the Federal Communications Commission and the state public utilities commissions as reasonably determined by the Corporation and as publicly disclosed by the Corporation on the U.S. Securities and Exchange Commission's Form 8-K (or such successor form); *provided* that a list of outstanding approvals may be requested in writing from the Corporation by a stockholder and (b) one hundred and eighty (180) days after the date of the pricing of the Corporation's IPO.

(b) Automatic Conversion. Shares of Class B Common Stock shall automatically, without any further action, convert into an equal number of shares of Class A Common Stock upon the earlier of:

(i) a Transfer of such share; *provided* that no such automatic conversion shall occur in the case of a Transfer by a Class B Stockholder for tax or estate planning purposes, to any of the persons or entities listed in clauses (A) through (E) below (each, a "**Permitted Transferee**") and from any such Permitted Transferee back to such Class B Stockholder and/or any other Permitted Transferee established by or for such Class B Stockholder:

(A) a family member of such Class B Stockholder, which shall include with respect to any natural person who is a Class B Stockholder, the spouse, domestic partner, parents, grandparents, lineal descendants, siblings and lineal descendants of siblings of such Class B Stockholder; and *provided, further,* that lineal descendants shall include adopted persons, but only so long as they are adopted during minority;

(B) a trust for the benefit of such Class B Stockholder or persons other than the Class B Stockholder so long as the Class B Stockholder and/or family members of such Class B Stockholder have sole dispositive power and exclusive Voting Control with respect to the shares of Class B Common Stock held by such trust; *provided* such Transfer does not involve any payment of cash, securities, property or other consideration (other than an interest in such trust) to the Class B Stockholder and, *provided, further*, that in the event such Class B Stockholder and/or family members of such Class B Stockholder no longer have sole dispositive power and exclusive Voting Control with respect to the shares of Class B Common Stock held by such trust, each share of Class B Common Stock then held by such trust shall automatically convert into one (1) fully paid and nonassessable share of Class A Common Stock;

(C) a trust under the terms of which such Class B Stockholder has retained a “qualified interest” within the meaning of §2702(b)(1) of the Internal Revenue Code (or successor provision) and/or a reversionary interest so long as the Class B Stockholder has sole dispositive power and exclusive Voting Control with respect to the shares of Class B Common Stock held by such trust; *provided*, *however*, that in the event the Class B Stockholder no longer has sole dispositive power and exclusive Voting Control with respect to the shares of Class B Common Stock held by such trust, each share of Class B Common Stock then held by such trust shall automatically convert into one (1) fully paid and nonassessable share of Class A Common Stock;

(D) an Individual Retirement Account, as defined in Section 408(a) of the Internal Revenue Code (or successor provision), or a pension, profit sharing, stock bonus or other type of plan or trust of which such Class B Stockholder is a participant or beneficiary and which satisfies the requirements for qualification under Section 401 of the Internal Revenue Code; *provided* that in each case such Class B Stockholder has sole dispositive power and exclusive Voting Control with respect to the shares of Class B Common Stock held in such account, plan or trust, and *provided, further*, that in the event the Class B Stockholder no longer has sole dispositive power and exclusive Voting Control with respect to the shares of Class B Common Stock held by such account, plan or trust, each share of Class B Common Stock then held by such trust shall automatically convert into one (1) fully paid and nonassessable share of Class A Common Stock;

(E) a corporation, partnership or limited liability company in which such Class B Stockholder directly, or indirectly through one or more Permitted Transferees, owns shares, partnership interests or membership interests, as applicable, with sufficient Voting Control in the corporation, partnership or limited liability company, as applicable, or otherwise has legally enforceable rights, such that the Class B Stockholder and/or family members of such Class B Stockholder retain sole dispositive power and exclusive Voting Control with respect to the shares of Class B Common Stock held by such corporation, partnership or limited liability company; *provided, however*, that in the event the Class B Stockholder and/or family members of such Class B Stockholder no longer own sufficient shares, partnership interests or membership interests, as applicable, or no

longer has sufficient legally enforceable rights to ensure the Class B Stockholder and/or family members of such Class B Stockholder retain sole dispositive power and exclusive Voting Control with respect to the shares of Class B Common Stock held by such corporation, partnership or limited liability company, as applicable, each share of Class B Common Stock then held by such corporation, partnership or limited liability company, as applicable, shall automatically convert into one (1) fully paid and nonassessable share of Class A Common Stock; and

(ii) the date specified by a written notice and certification request of the Corporation to the holder of such share of Class B Common Stock requesting a certification, in a form satisfactory to the Corporation, verifying such holder's ownership of Class B Common Stock and confirming that a conversion to Class A Common Stock has not occurred, which date shall not be less than sixty (60) calendar days after the date of such notice and certification request; *provided* that no such automatic conversion pursuant to this subsection (ii) shall occur in the case of a Class B Stockholder or its Permitted Transferees that furnishes a certification satisfactory to the Corporation prior to the specified date.

(c) Conversion Upon Death or Incapacity of a Class B Stockholder.

(i) Each share of Class B Common Stock held of record by a Class B Stockholder, other than a Key Holder, who is a natural person, or by such Class B Stockholder's Permitted Transferees, shall automatically, without any further action, convert into one (1) fully paid and nonassessable share of Class A Common Stock upon the death or Incapacity of such Class B Stockholder.

(ii) Each share of Class B Common Stock held of record by a Key Holder, or by a Key Holders' Permitted Transferees, upon the death or Incapacity of such Key Holder, shall automatically convert into one (1) fully paid and nonassessable share of Class A Common Stock upon that date which is the earlier of: (a) nine (9) months after the date of death or Incapacity of the Key Holder and (b) the date upon which the Designated Proxy Holder ceases to hold exclusive Voting Control over such shares of Class B Common Stock.

(d) Automatic Conversion of all Outstanding Class B Common Stock. Each one (1) share of Class B Common Stock shall automatically, without any further action, convert into one (1) share of Class A Common Stock upon the date specified by affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the outstanding shares of Class B Common Stock voting as a single class.

(e) Final Conversion of Class B Common Stock. Upon the Final Conversion Date, as certified by the Board of Directors, each share of Class B Common Stock shall automatically, without any further action, convert into one (1) fully paid and nonassessable share of Class A Common Stock. In making such determination, the Board of Directors shall be entitled to conclusively rely on reports or schedules disclosing ownership of Common Stock filed by or on behalf of the Key Holders, or any of them, pursuant to Section 13 or Section 16 (or such successor provision) of the Exchange Act. Following such conversion, the reissuance of all shares of Class B Common Stock shall be prohibited, and such shares shall be retired

and cancelled in accordance with Section 243 of the DGCL and the filing by the Secretary of State of the State of Delaware required thereby, and upon such retirement and cancellation, all references to Class B Common Stock in this Second Amended and Restated Certificate of Incorporation shall be eliminated.

(f) Procedures. The Corporation may, from time to time, establish such policies and procedures relating to the conversion of Class B Common Stock to Class A Common Stock and the general administration of this dual class stock structure, including the issuance of stock certificates (or the establishment of book-entry positions) with respect thereto, as it may deem reasonably necessary or advisable, and may from time to time request that holders of shares of Class B Common Stock furnish certifications, affidavits or other proof to the Corporation as it deems necessary to verify the ownership of Class B Common Stock and to confirm that a conversion to Class A Common Stock has not occurred. A determination by the Board of the Corporation that a Transfer results in a conversion to Class A Common Stock shall be conclusive and binding.

(g) Immediate Effect. In the event of a conversion of shares of Class B Common Stock to shares of Class A Common Stock pursuant to this Section E.3 or upon the Final Conversion Date, such conversion(s) shall be deemed to have been made at the time that the Transfer of shares occurred or immediately upon the Final Conversion Date, as applicable. Upon any conversion of Class B Common Stock to Class A Common Stock, all rights of the holder of shares of Class B Common Stock shall cease and the person or persons in whose names or names the certificate or certificates (or book-entry position(s)) representing the shares of Class A Common Stock are to be issued shall be treated for all purposes as having become the record holder or holders of such shares of Class A Common Stock. Shares of Class B Common Stock that are converted into shares of Class A Common Stock as provided in this Section E.3 shall be retired and may not be reissued.

(h) Reservation of Stock. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Class A Common Stock, solely for the purpose of effecting the conversion of the shares of Class B Common Stock, such number of its shares of Class A Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of Class B Common Stock into shares of Class A Common Stock.

ARTICLE V

The following terms, where capitalized in this Second Amended and Restated Certificate of Incorporation, shall have the meanings ascribed to them in this Article V:

“Change of Control Share Issuance” means the issuance by the Corporation, in a transaction or series of related transactions, of voting securities representing more than two percent (2%) of the total voting power (assuming Class A Common Stock and Class B Common Stock each have one (1) vote per share) of the Corporation before such issuance to any person or persons acting as a group as contemplated in Rule 13d-5(b) under the Exchange Act (or any successor provision) that immediately prior to such transaction or series of related transactions held fifty percent (50%) or less of the total voting power of the Corporation (assuming Class A Common Stock and Class B Common Stock each have

one (1) vote per share), such that, immediately following such transaction or series of related transactions, such person or group of persons would hold more than fifty percent (50%) of the total voting power of the Corporation (assuming Class A Common Stock and Class B Common Stock each have one (1) vote per share).

“**Change of Control Transaction**” means (i) the sale, lease, exchange, or other disposition (other than liens and encumbrances created in the ordinary course of business, including liens or encumbrances to secure indebtedness for borrowed money that are approved by the Corporation’s Board of Directors, so long as no foreclosure occurs in respect of any such lien or encumbrance) of all or substantially all of the Corporation’s property and assets (which shall for such purpose include the property and assets of any direct or indirect subsidiary of the Corporation), *provided that* any sale, lease, exchange or other disposition of property or assets exclusively between or among the Corporation and any direct or indirect subsidiary or subsidiaries of the Corporation shall not be deemed a “**Change of Control Transaction**”; (ii) the merger, consolidation, business combination, or other similar transaction of the Corporation with any other entity, other than a merger, consolidation, business combination, or other similar transaction that would result in the voting securities of the Corporation outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) more than fifty percent (50%) of the total voting power represented by the voting securities of the Corporation *and* more than fifty percent (50%) of the total number of outstanding shares of the Corporation’s capital stock, in each case as outstanding immediately after such merger, consolidation, business combination, or other similar transaction, and the stockholders of the Corporation immediately prior to the merger, consolidation, business combination, or other similar transaction own voting securities of the Corporation, the surviving entity or its parent immediately following the merger, consolidation, business combination, or other similar transaction in substantially the same proportions (*vis-a-vis* each other) as such stockholders owned the voting securities of the Corporation immediately prior to the transaction; (iii) a recapitalization, liquidation, dissolution, or other similar transaction involving the Corporation, other than a recapitalization, liquidation, dissolution, or other similar transaction that would result in the voting securities of the Corporation outstanding immediately prior thereto continuing to represent (either by remaining outstanding or being converted into voting securities of the surviving entity or its parent) more than fifty percent (50%) of the total voting power represented by the voting securities of the Corporation *and* more than fifty percent (50%) of the total number of outstanding shares of the Corporation’s capital stock, in each case as outstanding immediately after such recapitalization, liquidation, dissolution or other similar transaction, and the stockholders of the Corporation immediately prior to the recapitalization, liquidation, dissolution or other similar transaction own voting securities of the Corporation, the surviving entity or its parent immediately following the recapitalization, liquidation, dissolution or other similar transaction in substantially the same proportions (*vis-a-vis* each other) as such stockholders owned the voting securities of the Corporation immediately prior to the transaction; and (iv) any Change of Control Share Issuance.

“**Class B Stockholder**” means (i) the registered holder of a share of Class B Common Stock at the Effective Time and (ii) the registered holder of any shares of Class B Common Stock that are originally issued by the Corporation after the Effective Time.

“**Designated Proxy Holder**” means, with respect to a Key Holder or any trust or other entity receiving or holding a Key Holder’s shares, any natural person designated or approved by such Key Holder to act as such Key Holder’s proxy and attorney-in-fact or, if there is no such designee, the members of the entire Board of Directors acting by majority vote.

“**Distribution**” means (i) any dividend or distribution of cash, property or shares of the Corporation’s capital stock; and (ii) any distribution following or in connection with any liquidation, dissolution or winding up of the Corporation, either voluntary or involuntary.

“**Exchange Act**” means the United States Securities Exchange Act of 1934, as amended.

“**Final Conversion Date**” means 5:00 p.m. in New York City, New York on the first Trading Day falling after the date on which the Key Holders beneficially own, directly or indirectly, in the aggregate less than forty percent (40%) of the number of shares of Class B common stock held by the Key Holders immediately following the closing of the Corporation’s IPO.

“**Incapacity**” shall mean that such holder is incapable of managing his or her financial affairs under the criteria set forth in the applicable probate code that can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than twelve (12) months as determined by a licensed medical practitioner. In the event of a dispute regarding whether a Class B Stockholder has suffered an Incapacity, no Incapacity of such holder will be deemed to have occurred unless and until an affirmative ruling regarding such Incapacity has been made by a court of competent jurisdiction.

“**IPO**” means the initial public offering of Class A common stock.

“**Key Holder**” means any of David A. Morken, Hazel-Rah LLC and/or any other entity or trust controlled by David A. Morken that holds shares of capital stock of the Corporation.

“**Rights**” means any option, warrant, restricted stock unit, conversion right or contractual right of any kind to acquire shares of the Corporation’s authorized but unissued capital stock.

“**Securities Act**” means the United States Securities Act of 1933, as amended.

“**Securities Exchange**” means, at any time, the registered national securities exchange on which the Corporation’s equity securities are then principally listed or traded, which shall be the New York Stock Exchange or NASDAQ Global Market (or similar national quotation system of the NASDAQ Stock Market) (“**NASDAQ**”) or any successor exchange of either the New York Stock Exchange or NASDAQ.

“**Trading Day**” means any day on which the Securities Exchange is open for trading.

“**Transfer**” of a share of Class B Common Stock shall mean any sale, assignment, transfer, conveyance, hypothecation or other transfer or disposition of such share or any legal or beneficial interest in such share, whether or not for value and whether voluntary or involuntary or by operation of law. A “**Transfer**” shall also include, without limitation, (i) a transfer of a share of Class B Common Stock to a broker or other nominee (regardless of whether or not there is a corresponding change in beneficial ownership) or (ii) the transfer of, or entering into a binding agreement with respect to, Voting Control over a share of Class B Common Stock by an irrevocable proxy; *provided, however*, that the following shall not be considered a “**Transfer**”: (a) the grant of a proxy in connection with actions to be taken at an annual or special meeting of stockholders; (b) the pledge of shares of Class B Common Stock by a Class B Stockholder that creates a mere security interest in such shares pursuant to a *bona fide* loan or indebtedness transaction so long as the Class B Stockholder continues to exercise Voting Control over such pledged shares; *provided, however*, that a foreclosure on such shares of Class B Common Stock or other similar action by the pledge shall constitute a “**Transfer**”; or (c) the fact that, as of the Effective Time or at any time after the Effective Time, the spouse of any Class B Stockholder possesses or obtains an interest in such holder’s shares of Class B Common Stock arising solely by reason of the application of the community property laws of any jurisdiction, so long as no other event or circumstance shall exist or have occurred that constitutes a “**Transfer**” of such shares of Class B Common Stock.

“**Voting Control**” with respect to a share of Class B Common Stock means the exclusive power (whether directly or indirectly) to vote or direct the voting of such share of Class B Common Stock by proxy, voting agreement, or otherwise.

ARTICLE VI

A General Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors.

B Number of Directors; Election. Subject to the rights of holders of any series of Preferred Stock with respect to the election of directors, the number of directors that constitutes the entire Board of Directors of the Corporation shall be fixed solely by resolution of the Board of Directors. Subject to the rights of holders of any series of Preferred Stock with respect to the election of directors, each director of the Corporation shall hold office until the expiration of the term for which he or she is elected and until his or her successor has been duly elected and qualified or until his or her earlier resignation, death or removal.

C Classified Board Structure. From and after the Effective Time, and subject to the rights of holders of any series of Preferred Stock with respect to the election of directors, the directors of the Corporation shall be divided into three (3) classes as nearly equal in size as is practicable, hereby designated Class I, Class II and Class III. The Board of Directors may assign members of the Board of Directors already in office to such classes at the time such classification becomes effective. The term of office of the initial Class I directors shall expire at the first regularly-scheduled annual meeting of stockholders following the Effective Time, the term of office of the initial Class II directors shall expire at the second annual meeting of stockholders following the Effective Time and the term of office of the initial Class III directors shall expire at the third annual meeting of stockholders following the Effective Time. At each annual meeting of stockholders, commencing with the first regularly-scheduled annual meeting of stockholders following the Effective Time, each of the successors elected to replace the directors of a Class whose term shall have expired at such annual meeting shall be elected to hold office until the third annual meeting next succeeding his or her election and until his or her respective successor shall have been duly elected and qualified.

Notwithstanding the foregoing provisions of this Article VI, each director shall serve until his or her successor is duly elected and qualified or until his or her death, resignation, or removal. Subject to the rights of holders of any series of Preferred Stock with respect to the election of directors, if the number of directors is hereafter changed, any newly created directorships or decrease in directorships shall be so apportioned among the classes as to make all classes as nearly equal in number as is practicable, *provided* that no decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

D Removal; Vacancies. Subject to the rights of holders of any series of Preferred Stock with respect to the election of directors, for so long as the board of directors is divided into classes pursuant to Article VI Section C, any director may be removed from office by the stockholders of the Corporation only for cause by the affirmative vote of the holders of at least sixty-six and two-thirds (66-2/3%) of the outstanding shares of Class A Common Stock and Class B Common Stock voting as a single class.

Vacancies occurring on the Board of Directors for any reason and newly created directorships resulting from an increase in the authorized number of directors may be filled only by vote of a majority of the remaining members of the Board of Directors, although less than a quorum, or by a sole remaining director, at any meeting of the Board of Directors. A person so elected by the Board of Directors to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall be duly elected and qualified.

ARTICLE VII

A Written Ballot. Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

B Amendment of Bylaws. In furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to adopt, amend or repeal the Bylaws of the Corporation.

C Special Meetings. Special meetings of the stockholders may be called only by (i) the Board of Directors pursuant to a resolution adopted by a majority of the Board of Directors; (ii) the chairman of the Board of Directors; (iii) the chief executive officer of the Corporation; or (iv) the president of the Corporation (in the absence of a chief executive officer).

D No Stockholder Action by Written Consent. Subject to the rights of the holders of any series of Preferred Stock, no action shall be taken by the stockholders of the Corporation except at an annual or special meeting of the stockholders called in accordance with the Bylaws, and other than by holders of Class B Common Stock no action shall be taken by the stockholders by written consent.

E No Cumulative Voting. No stockholder will be permitted to cumulate votes at any election of directors.

ARTICLE VIII

To the fullest extent permitted by the DGCL, as it presently exists or may hereafter be amended from time to time, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Neither any amendment nor repeal of this Article VIII, nor the adoption of any provision of the Corporation's Certificate of Incorporation inconsistent with this Article VIII, shall eliminate or reduce the effect of this Article VIII in respect of any matter occurring, or any cause of action, suit or proceeding accruing or arising or that, but for this Article VIII, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

ARTICLE IX

Subject to any provisions in the Bylaws of the Corporation related to indemnification of directors or officers of the Corporation, the Corporation shall indemnify, to the fullest extent permitted by applicable law, any director or officer of the Corporation who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**") by reason of the fact that he or she is or was a director, officer, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any such Proceeding.

The Corporation shall have the power to indemnify, to the extent permitted by the DGCL, as it presently exists or may hereafter be amended from time to time, any employee or agent of the Corporation who was or is a party or is threatened to be made a party to any Proceeding by reason of the fact that he or she is or was a director, officer, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any such Proceeding.

A right to indemnification or to advancement of expenses arising under a provision of this Second Amended and Restated Certificate of Incorporation or the Bylaws of the Corporation shall not be eliminated or impaired by an amendment to this Second Amended and Restated Certificate of Incorporation or the Bylaws of the Corporation after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought, unless the provision in effect at the time of such act or omission explicitly authorizes such elimination or impairment after such action or omission has occurred.

ARTICLE X

If any provision of this Second Amended and Restated Certificate of Incorporation becomes or is declared on any ground by a court of competent jurisdiction to be illegal, unenforceable or void, portions of such provision, or such provision in its entirety, to the extent necessary, shall be severed from this Second Amended and Restated Certificate of Incorporation, and the court will replace such illegal, void or unenforceable provision of this Second Amended and Restated Certificate of Incorporation with a valid and enforceable provision that most accurately reflects the Corporation's intent, in order to achieve, to the maximum extent possible, the same economic, business and other purposes of the illegal, void or unenforceable provision. The balance of this Second Amended and Restated Certificate of Incorporation shall be enforceable in accordance with its terms.

Except as provided in ARTICLE VIII and ARTICLE IX above, the Corporation reserves the right to amend, alter, change or repeal any provision contained in this Second Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation; *provided, however*, that, notwithstanding any other provision of this Second Amended and Restated Certificate of Incorporation or any provision of law that might otherwise permit a lesser vote or no vote, but in addition to any vote of the holders of any class or series of the stock of this Corporation required by law or by this Second Amended and Restated Certificate of Incorporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of the outstanding shares of stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend or repeal, or adopt any provision of this Second Amended and Restated Certificate of Incorporation inconsistent with, ARTICLE VI, ARTICLE VII, ARTICLE VIII, ARTICLE IX or this ARTICLE X.

* * *

IN WITNESS WHEREOF, this Second Amended and Restated Certificate of Incorporation has been signed on behalf of the Corporation by its duly authorized officer effective this _____ day of November, 2017.

BANDWIDTH INC.

By: _____
David A. Morken
Chief Executive Officer

**SECOND AMENDED AND RESTATED BYLAWS
OF
BANDWIDTH INC.**

(effective as of the pricing of the initial public offering of Bandwidth Inc.)

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BYLAWS OF BANDWIDTH INC.

ARTICLE I

CORPORATE OFFICES

1.1 Registered Office. The registered office of Bandwidth Inc. (the “corporation”) shall be fixed in the corporation’s certificate of incorporation, as the same may be amended from time to time.

1.2 Other Offices. The corporation’s board of directors may at any time establish other offices at any place or places where the corporation is qualified to do business.

ARTICLE II

MEETINGS OF STOCKHOLDERS

2.1 Place of Meetings. Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the board of directors. The board of directors may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the Delaware General Corporation Law (the “**DGCL**”). In the absence of any such designation or determination, stockholders’ meetings shall be held at the corporation’s principal executive office.

2.2 Annual Meeting. The annual meeting of stockholders shall be held on such date, at such time, and at such place (if any) within or without the State of Delaware as shall be designated from time to time by the board of directors and stated in the corporation’s notice of the meeting. At the annual meeting, directors shall be elected and any other proper business, brought in accordance with Section 2.4 of these bylaws, may be transacted. The board of directors may cancel, postpone or reschedule any previously scheduled annual meeting at any time, before or after the notice for such meeting has been sent to the stockholders.

2.3 Special Meeting.

(i) A special meeting of the stockholders, other than those required by statute, may be called at any time by (A) the board of directors, (B) the chairperson of the board of directors, (C) the chief executive officer or (D) the president (in the absence of a chief executive officer), but a special meeting may not be called by any other person or persons. The board of directors may cancel, postpone or reschedule any previously scheduled special meeting at any time, before or after the notice for such meeting has been sent to the stockholders.

(ii) The notice of a special meeting shall include the purpose for which the meeting is called. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting by or at the direction of the board of directors, chairperson of the board of directors, chief executive officer or president (in the absence of a chief executive officer). Nothing contained in this Section 2.3(ii) shall be construed as limiting, fixing or affecting the time when a meeting of stockholders called by action of the board of directors may be held.

2.4 Advance Notice Procedures.

(i) Advance Notice of Stockholder Business. At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be brought: (A) pursuant to the corporation's proxy materials with respect to such meeting, (B) by or at the direction of the board of directors, or (C) by a stockholder of the corporation who (1) is a stockholder of record at the time of the giving of the notice required by this Section 2.4(i) and on the record date for the determination of stockholders entitled to vote at the annual meeting and (2) has timely complied in proper written form with the notice procedures set forth in this Section 2.4(i). In addition, for business to be properly brought before an annual meeting by a stockholder, such business must be a proper matter for stockholder action pursuant to these bylaws and applicable law. For the avoidance of doubt, except for proposals properly made in accordance with Rule 14a-8 under the Securities and Exchange Act of 1934, as amended, or any successor thereto (the "**1934 Act**"), and the regulations thereunder (or any successor rule and in any case as so amended), clause (C) above shall be the exclusive means for a stockholder to bring business before an annual meeting of stockholders.

(a) To comply with clause (C) of Section 2.4(i) above, a stockholder's notice must set forth all information required under this Section 2.4(i) and must be timely received by the secretary of the corporation. To be timely, a stockholder's notice must be received by the secretary at the principal executive offices of the corporation not later than the 45th day nor earlier than the 75th day before the one-year anniversary of the date on which the corporation first mailed its proxy materials or a notice of availability of proxy materials (whichever is earlier) for the preceding year's annual meeting; *provided, however*, that in the event that no annual meeting was held in the previous year or if the date of the annual meeting is advanced by more than 30 days prior to or delayed by more than 60 days after the one-year anniversary of the date of the previous year's annual meeting, then, for notice by the stockholder to be timely, it must be so 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 (i) the 90th day prior to such annual meeting, or (ii) the tenth day following the day on which Public Announcement (as defined below) of the date of such annual meeting is first made. In no event shall any adjournment, rescheduling or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described in this Section 2.4(i)(a). "**Public Announcement**" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service, in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act, or made via a Tweet from a verified account operated by the corporation (e.g., @ Bandwidth).

(b) To be in proper written form, a stockholder's notice to the secretary must set forth as to each matter of business the stockholder intends to bring before the annual meeting: (1) a brief description of the business intended to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (2) the name and address, as they appear on the corporation's books, of the stockholder proposing such business and any Stockholder Associated Person (as defined below), (3) the class and number of shares of the corporation that are held of record or are beneficially owned by the stockholder or any

Stockholder Associated Person and any derivative positions held or beneficially held by the stockholder or any Stockholder Associated Person, (4) whether and the extent to which any hedging or other transaction or series of transactions has been entered into by or on behalf of such stockholder or any Stockholder Associated Person with respect to any securities of the corporation, and a description of any other agreement, arrangement or understanding (including any short position or any borrowing or lending of shares), the effect or intent of which is to mitigate loss to, or to manage the risk or benefit from share price changes for, or to increase or decrease the voting power of, such stockholder or any Stockholder Associated Person with respect to any securities of the corporation, (5) any material interest of the stockholder or a Stockholder Associated Person in such business, and (6) a statement whether either such stockholder or any Stockholder Associated Person will deliver a proxy statement and form of proxy to holders of at least the percentage of the voting power of the corporation's voting shares required under applicable law to carry the proposal (such information provided and statements made as required by clauses (1) through (6), a "**Business Solicitation Statement**"). In addition, to be in proper written form, a stockholder's notice to the secretary must be supplemented not later than ten days following the record date for the determination of stockholders entitled to notice of the meeting to disclose the information contained in clauses (3) and (4) above as of the record date. For purposes of this Section 2.4, a "**Stockholder Associated Person**" of any stockholder shall mean (i) any person controlling, directly or indirectly, or acting in concert with, such stockholder, (ii) any beneficial owner of shares of stock of the corporation owned of record or beneficially by such stockholder and on whose behalf the proposal or nomination, as the case may be, is being made, or (iii) any person controlling, controlled by or under common control with such person referred to in the preceding clauses (i) and (ii).

(c) Without exception, no business shall be conducted at any annual meeting except in accordance with the provisions set forth in this Section 2.4(i) and, if applicable, Section 2.4(ii). In addition, business proposed to be brought by a stockholder may not be brought before the annual meeting if such stockholder or a Stockholder Associated Person, as applicable, takes action contrary to the representations made in the Business Solicitation Statement applicable to such business or if the Business Solicitation Statement applicable to such business contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein not misleading. The chairperson of the annual meeting shall, if the facts warrant, determine and declare at the annual meeting that business was not properly brought before the annual meeting and in accordance with the provisions of this Section 2.4(i), and, if the chairperson should so determine, he or she shall so declare at the annual meeting that any such business not properly brought before the annual meeting shall not be conducted.

(ii) Advance Notice of Director Nominations at Annual Meetings. Notwithstanding anything in these bylaws to the contrary, only persons who are nominated in accordance with the procedures set forth in this Section 2.4(ii) shall be eligible for election or re-election as directors at an annual meeting of stockholders. Nominations of persons for election to the board of directors of the corporation shall be made at an annual meeting of stockholders only (A) by or at the direction of the board of directors or (B) by a stockholder of the corporation who (1) was a stockholder of record at the time of the giving of the notice required by this Section 2.4(ii) and on the record date for the determination of stockholders entitled to vote at the annual meeting and (2) has complied with the notice procedures set forth in this Section 2.4(ii). In addition to any other applicable requirements, for a nomination to be made by a stockholder, the stockholder must have given timely notice thereof in proper written form to the secretary of the corporation.

(a) To comply with clause (B) of Section 2.4(ii) above, a nomination to be made by a stockholder must set forth all information required under this Section 2.4(ii) and must be received by the secretary of the corporation at the principal executive offices of the corporation at the time set forth in, and in accordance with, the final three sentences of Section 2.4(i)(a) above; *provided, however*, that in the event that the number of directors to be elected to the board of directors is increased and there is no Public Announcement naming all of the nominees for director or specifying the size of the increased board made by the corporation at least ten days before the last day a stockholder may deliver a notice of nomination pursuant to the foregoing provisions, a stockholder's notice required by this Section 2.4(ii) shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be received by the secretary of the corporation at the principal executive offices of the corporation not later than the close of business on the tenth day following the day on which such Public Announcement is first made by the corporation.

(b) To be in proper written form, such stockholder's notice to the secretary must set forth:

(1) as to each person (a "**nominee**") whom the stockholder proposes to nominate for election or re-election as a director: (A) the name, age, business address and residence address of the nominee, (B) the principal occupation or employment of the nominee, (C) the class and number of shares of the corporation that are held of record or are beneficially owned by the nominee and any derivative positions held or beneficially held by the nominee, (D) whether and the extent to which any hedging or other transaction or series of transactions has been entered into by or on behalf of the nominee with respect to any securities of the corporation, and a description of any other agreement, arrangement or understanding (including any short position or any borrowing or lending of shares), the effect or intent of which is to mitigate loss to, or to manage the risk or benefit of share price changes for, or to increase or decrease the voting power of the nominee, (E) a description of all arrangements or understandings between or among any of the stockholder, each nominee and/or any other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the stockholder or relating to the nominee's potential service on the board of directors, (F) a written statement executed by the nominee acknowledging that as a director of the corporation, the nominee will owe a fiduciary duty under Delaware law with respect to the corporation and its stockholders, and (G) any other information relating to the nominee that would be required to be disclosed about such nominee if proxies were being solicited for the election of the nominee as a director, or that is otherwise required, in each case pursuant to Regulation 14A under the 1934 Act (including without limitation the nominee's written consent to being named in the proxy statement, if any, as a nominee and to serving as a director if elected); and

(2) as to such stockholder giving notice, (A) the information required to be provided pursuant to clauses (2) through (5) of Section 2.4(i)(b) above, and the supplement referenced in the second sentence of Section 2.4(i)(b) above (except that the references to "business" in such clauses shall instead refer to nominations of directors for purposes of this paragraph), and (B) a statement whether either such stockholder or Stockholder

Associated Person will deliver a proxy statement and form of proxy to holders at least the percentage of the corporation's voting shares reasonably believed by such stockholder or Stockholder Associated Person to be necessary to elect such nominee(s) (such information provided and statements made as required by clauses (A) and (B) above, a "**Nominee Solicitation Statement**").

(c) At the request of the board of directors, any person nominated by a stockholder for election as a director must furnish to the secretary of the corporation (1) that information required to be set forth in the stockholder's notice of nomination of such person as a director as of a date subsequent to the date on which the notice of such person's nomination was given and (2) such other information as may reasonably be required by the corporation to determine the eligibility of such proposed nominee to serve as an independent director of the corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such nominee; in the absence of the furnishing of such information if requested, such stockholder's nomination shall not be considered in proper form pursuant to this Section 2.4(ii).

(d) Without exception, no person shall be eligible for election or re-election as a director of the corporation at an annual meeting of stockholders unless nominated in accordance with the provisions set forth in this Section 2.4(ii). In addition, a nominee shall not be eligible for election or re-election if a stockholder or Stockholder Associated Person, as applicable, takes action contrary to the representations made in the Nominee Solicitation Statement applicable to such nominee or if the Nominee Solicitation Statement applicable to such nominee contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein not misleading. The chairperson of the annual meeting shall, if the facts warrant, determine and declare at the annual meeting that a nomination was not made in accordance with the provisions prescribed by these bylaws, and if the chairperson should so determine, he or she shall so declare at the annual meeting, and the defective nomination shall be disregarded.

(iii) Advance Notice of Director Nominations for Special Meetings.

(a) For a special meeting of stockholders at which directors are to be elected pursuant to Section 2.3, nominations of persons for election to the board of directors shall be made only (1) by or at the direction of the board of directors or (2) by any stockholder of the corporation who (A) is a stockholder of record at the time of the giving of the notice required by this Section 2.4(iii) and on the record date for the determination of stockholders entitled to vote at the special meeting and (B) delivers a timely written notice of the nomination to the secretary of the corporation that includes the information set forth in Sections 2.4(ii)(b) and (ii)(c) above. To be timely, such notice must be received by the secretary at the principal executive offices of the corporation not later than the close of business on the later of the 90th day prior to such special meeting or the tenth day following the day on which Public Announcement is first made of the date of the special meeting and of the nominees proposed by the board of directors to be elected at such meeting. In no event shall any adjournment, rescheduling or postponement of a special meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice. A person shall not be eligible for election or re-election as a director at a special meeting unless the person is nominated (i) by or at the direction of the board of directors

or (ii) by a stockholder in accordance with the notice procedures set forth in this Section 2.4(iii). In addition, a nominee shall not be eligible for election or re-election if a stockholder or Stockholder Associated Person, as applicable, takes action contrary to the representations made in the Nominee Solicitation Statement applicable to such nominee or if the Nominee Solicitation Statement applicable to such nominee contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein not misleading.

(b) The chairperson of the special meeting shall, if the facts warrant, determine and declare at the meeting that a nomination or business was not made in accordance with the procedures prescribed by these bylaws, and if the chairperson should so determine, he or she shall so declare at the meeting, and the defective nomination or business shall be disregarded.

(iv) Other Requirements and Rights. In addition to the foregoing provisions of this Section 2.4, a stockholder must also comply with all applicable requirements of state law and of the 1934 Act and the rules and regulations thereunder with respect to the matters set forth in this Section 2.4, including, with respect to business such stockholder intends to bring before the annual meeting that involves a proposal that such stockholder requests to be included in the corporation's proxy statement, the requirements of Rule 14a-8 (or any successor provision) under the 1934 Act. Nothing in this Section 2.4 shall be deemed to affect any right of the corporation to omit a proposal from the corporation's proxy statement pursuant to Rule 14a-8 (or any successor provision) under the 1934 Act.

2.5 Notice of Stockholders' Meetings. Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which shall state the place, if any, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Except as otherwise provided in the DGCL, the certificate of incorporation or these bylaws, the written notice of any meeting of stockholders shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting.

2.6 Quorum. The holders of a majority of the voting power of the stock issued and outstanding and entitled to vote, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders, unless otherwise required by law, the certificate of incorporation, these bylaws or the rules of any applicable stock exchange. Where a separate vote by a class or series or classes or series is required, a majority of the voting power of the issued and outstanding shares of such class or series or classes or series, present in person or represented by proxy, shall constitute a quorum entitled to take action with respect to that vote on that matter, except as otherwise required by law, the certificate of incorporation, these bylaws or the rules of any applicable stock exchange.

Whether or not a quorum is present at a meeting of stockholders, the chairperson of the meeting shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the original meeting.

2.7 Adjourned Meeting; Notice. When a meeting is adjourned to another time or place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than 30 days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for stockholders entitled to vote is fixed for the adjourned meeting, the board of directors shall fix a new record date for notice of such adjourned meeting in accordance with Section 213(a) of the DGCL and Section 2.11 of these bylaws, and shall give notice of the adjourned meeting to each stockholder of record entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting.

2.8 Conduct of Business. The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business. The chairperson of any meeting of stockholders shall be designated by the board of directors; in the absence of such designation, the chairperson of the board, if any, the chief executive officer (in the absence of the chairperson) or the lead independent director (in the absence of the chairperson of the board and the chief executive officer), or in their absence any other executive officer of the corporation, shall serve as chairperson of the stockholder meeting.

2.9 Voting. The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.11 of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

Except as otherwise required by law, the certificate of incorporation, these bylaws or the rules of any applicable stock exchange, in all matters other than the election of directors, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Except as otherwise required by law, the certificate of incorporation, these bylaws or the rules of any applicable stock exchange, directors shall be elected by a plurality of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. Where a separate vote by a class or series or classes or series is required, in all matters other than the election of directors, the affirmative vote of the majority of the voting power of shares of such class or series or classes or series present in person or represented by proxy at the meeting shall be the act of such class or series or classes or series, except as otherwise provided by law, the certificate of incorporation, these bylaws or the rules of any applicable stock exchange.

2.10 Stockholder Action By Written Consent Without A Meeting. Subject to the rights of the holders of the shares of any series of preferred stock or any other class of stock or series thereof that have been expressly granted the right to take action by written consent, any action required or permitted to be taken by the stockholders of the corporation must be effected at a duly called annual or special meeting of stockholders of the corporation and may not be effected by any consent in writing by such stockholders.

2.11 Record Dates. In order that the corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the board of directors and which record date shall not be more than 60 nor less than 10 days before the date of such meeting. If the board of directors so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the board of directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination.

If no record date is fixed by the board of directors, the record date for determining stockholders entitled to notice of and to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the board of directors may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance with the provisions of Section 213 of the DGCL and this Section 2.11 at the adjourned meeting.

In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the board of directors adopts the resolution relating thereto.

2.12 Proxies. Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. The revocability of a proxy

that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL. A written proxy may be in the form of a telegram, cablegram, or other means of electronic transmission which sets forth or is submitted with information from which it can be determined that the telegram, cablegram, or other means of electronic transmission was authorized by the stockholder.

2.13 List of Stockholders Entitled to Vote. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting; *provided, however*, if the record date for determining the stockholders entitled to vote is less than 10 days before the meeting date, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder for any purpose germane to the meeting for a period of at least 10 days prior to the meeting: (i) on a reasonably accessible electronic network; *provided* that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the corporation's principal place of business. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. If the meeting is to be held at a place, then a list of stockholders entitled to vote at the meeting shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then such list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

2.14 Inspectors of Election. Before any meeting of stockholders, the board of directors shall appoint an inspector or inspectors of election to act at the meeting or its adjournment. The number of inspectors shall be either one (1) or three (3). If any person appointed as inspector fails to appear or fails or refuses to act, then the chairperson of the meeting may, and upon the request of any stockholder or a stockholder's proxy shall, appoint a person to fill that vacancy; *provided, further*, that, in any case, if no inspector or alternate is able to act at a meeting of stockholders, the chairperson of the meeting shall appoint at least one (1) inspector to act at the meeting.

Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath to execute faithfully the duties of inspector with strict impartiality and according to the best of his or her ability. Such inspectors shall:

(i) determine the number of shares outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum, and the authenticity, validity, and effect of proxies;

- (ii) receive votes, ballots or consents;
- (iii) hear and determine all challenges and questions in any way arising in connection with the right to vote;
- (iv) count and tabulate all votes or consents;
- (v) determine when the polls shall close;
- (vi) determine the results; and
- (vii) do any other acts that may be proper to conduct the election or vote with fairness to all stockholders.

The inspectors of election shall perform their duties impartially, in good faith, to the best of their ability and as expeditiously as is practical. If there are three (3) inspectors of election, the decision, act or certificate of a majority is effective in all respects as the decision, act or certificate of all. Any report or certificate made by the inspectors of election is prima facie evidence of the facts stated therein.

ARTICLE III

DIRECTORS

3.1 Powers. The business and affairs of the corporation shall be managed by or under the direction of the board of directors, except as may be otherwise provided in the DGCL or the certificate of incorporation.

3.2 Number of Directors. The board of directors shall consist of one or more members, each of whom shall be a natural person. Unless the certificate of incorporation fixes the number of directors, the number of directors shall be determined from time to time by resolution of the board of directors. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

3.3 Election, Qualification and Term of Office Of Directors. Except as provided in Section 3.4 of these bylaws, each director, including a director elected to fill a vacancy, shall hold office until the expiration of the term for which elected and until such director's successor is elected and qualified or until such director's earlier death, resignation or removal. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The certificate of incorporation or these bylaws may prescribe other qualifications for directors.

In accordance with the provisions of the certificate of incorporation, the directors of the corporation shall be divided into three classes.

3.4 Resignation and Vacancies. Any director may resign at any time upon notice given in writing or by electronic transmission to the corporation. A resignation is effective when the resignation is delivered unless the resignation specifies a later effective date or an effective date determined upon the happening of an event or events. A resignation which is conditioned

upon the director failing to receive a specified vote for reelection as a director may provide that it is irrevocable. Unless otherwise provided in the certificate of incorporation or these bylaws, when one or more directors resign from the board of directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective.

Unless otherwise provided in the certificate of incorporation or these bylaws, vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class shall be filled only by a majority of the directors then in office, although less than a quorum, or by a sole remaining director. If the directors are divided into classes, a person so elected by the directors then in office to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall have been duly elected and qualified.

If at any time, by reason of death or resignation or other cause, the corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Delaware Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the DGCL.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole board of directors (as constituted immediately prior to any such increase), the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the voting power of the voting stock at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

3.5 Place of Meetings; Meetings By Telephone. The board of directors may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the board of directors, or any committee designated by the board of directors, may participate in a meeting of the board of directors, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

3.6 Regular Meetings. Regular meetings of the board of directors may be held without notice at such time and at such place as shall from time to time be determined by the board of directors.

3.7 Special Meetings; Notice. Special meetings of the board of directors for any purpose or purposes may be called at any time by the chairperson of the board of directors, the chief executive officer, the president, the secretary or a majority of the authorized number of directors, at such times and places as he or she or they shall designate.

Notice of the time and place of special meetings shall be:

- (i) delivered personally by hand, by courier or by telephone;
- (ii) sent by United States first-class mail, postage prepaid;
- (iii) sent by facsimile; or
- (iv) sent by electronic mail,

directed to each director at that director's address, telephone number, facsimile number or electronic mail address, as the case may be, as shown on the corporation's records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile or (iii) sent by electronic mail, it shall be delivered or sent at least 24 hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the corporation's principal executive office) nor the purpose of the meeting.

3.8 Quorum; Voting. At all meetings of the board of directors, a majority of the total authorized number of directors shall constitute a quorum for the transaction of business. If a quorum is not present at any meeting of the board of directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present. A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the board of directors, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws.

If the certificate of incorporation provides that one or more directors shall have more or less than one vote per director on any matter, every reference in these bylaws to a majority or other proportion of the directors shall refer to a majority or other proportion of the votes of the directors.

3.9 Board Action By Written Consent Without A Meeting . Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the board of directors, or of any committee thereof, may be taken without a meeting if all members of the board of directors or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic

transmission or transmissions are filed with the minutes of proceedings of the board of directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. Any person (whether or not then a director) may provide, whether through instruction to an agent or otherwise, that a consent to action will be effective at a future time (including a time determined upon the happening of an event), no later than 60 days after such instruction is given or such provision is made and such consent shall be deemed to have been given for purposes of this Section 3.9 at such effective time so long as such person is then a director and did not revoke the consent prior to such time. Any such consent shall be revocable prior to its becoming effective.

3.10 Fees and Compensation of Directors. Unless otherwise restricted by the certificate of incorporation or these bylaws, the board of directors shall have the authority to fix the compensation of directors.

3.11 Removal of Directors. A director may be removed from office by the stockholders of the corporation only as provided in the certificate of incorporation.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE IV COMMITTEES

4.1 Committees of Directors. The board of directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The board of directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the board of directors or in these bylaws, shall have and may exercise all the powers and authority of the board of directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the corporation.

4.2 Committee Minutes. Each committee shall keep regular minutes of its meetings and report the same to the board of directors when required.

4.3 Meetings and Action of Committees. Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

- (i) Section 3.5 (place of meetings and meetings by telephone);

- (ii) Section 3.6 (regular meetings);
- (iii) Section 3.7 (special meetings and notice);
- (iv) Section 3.8 (quorum; voting);
- (v) Section 3.9 (action without a meeting); and
- (vi) Section 7.5 (waiver of notice),

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the board of directors and its members. However:

- (i) the time of regular meetings of committees may be determined either by resolution of the board of directors or by resolution of the committee;
- (ii) special meetings of committees may also be called by resolution of the board of directors; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The board of directors or a committee may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

Any provision in the certificate of incorporation providing that one or more directors shall have more or less than one vote per director on any matter shall apply to voting in any committee or subcommittee, unless otherwise provided in the certificate of incorporation or these bylaws.

4.4 Subcommittees. Unless otherwise provided in the certificate of incorporation, these bylaws or the resolutions of the board of directors designating the committee, a committee may create one or more subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

ARTICLE V

OFFICERS

5.1 Officers. The officers of the corporation shall be a president and a secretary. The corporation may also have, at the discretion of the board of directors, a chairperson of the board of directors, a vice chairperson of the board of directors, a chief executive officer, a chief financial officer, treasurer, one or more vice presidents, one or more assistant vice presidents, one or more assistant treasurers, one or more assistant secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

5.2 Appointment of Officers. The board of directors shall appoint the officers of the corporation, except such officers as may be appointed in accordance with the provisions of Sections 5.3 of these bylaws, subject to the rights, if any, of an officer under any contract of employment.

5.3 Subordinate Officers. The board of directors may appoint, or empower the chief executive officer or, in the absence of a chief executive officer, the president, to appoint, such other officers and agents as the business of the corporation may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the board of directors may from time to time determine.

5.4 Removal and Resignation of Officers. Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the board of directors at any regular or special meeting of the board of directors or, except in the case of an officer chosen by the board of directors, by any officer upon whom such power of removal may be conferred by the board of directors.

Any officer may resign at any time by giving written notice to the corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the corporation under any contract to which the officer is a party.

5.5 Vacancies In Offices. Any vacancy occurring in any office of the corporation shall be filled by the board of directors or as provided in Section 5.3.

5.6 Representation of Shares of Other Corporations. The chairperson of the board of directors, the president, any vice president, the treasurer, the secretary or assistant secretary of this corporation, or any other person authorized by the board of directors or the president or a vice president, is authorized to vote, represent, and exercise on behalf of this corporation all rights incident to any and all shares or other equity interests of any other corporation or corporations or entity or entities standing in the name of this corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

5.7 Authority and Duties of Officers. All officers of the corporation shall respectively have such authority and perform such duties in the management of the business of the corporation as may be designated from time to time by the board of directors or the stockholders and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the board of directors.

ARTICLE VI

STOCK

6.1 Stock Certificates; Partly Paid Shares. The shares of the corporation shall be represented by certificates; *provided* that the board of directors may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated

shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Every holder of stock represented by certificates shall be entitled to have a certificate signed by, or in the name of the corporation by the chairperson of the board of directors or vice-chairperson of the board of directors, or the president or a vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. The corporation shall not have power to issue a certificate in bearer form.

The corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly-paid shares, or upon the books and records of the corporation in the case of uncertificated partly-paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully-paid shares, the corporation shall declare a dividend upon partly-paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

6.2 Special Designation On Certificates. If the corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the corporation shall issue to represent such class or series of stock; *provided, however*, that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the corporation shall issue to represent such class or series of stock, a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Within a reasonable time after the issuance or transfer of uncertificated stock, the corporation shall send to the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to this Section 6.2 or Sections 151, 156, 202(a) or 218(a) of the DGCL or with respect to this Section 6.2 a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Except as otherwise expressly provided by law, the rights and obligations of the holders of uncertificated stock and the rights and obligations of the holders of certificates representing stock of the same class and series shall be identical.

6.3 Lost Certificates. Except as provided in this Section 6.3, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the corporation and cancelled at the same time. The corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

6.4 Dividends. The board of directors, subject to any restrictions contained in the certificate of incorporation or applicable law, may declare and pay dividends upon the shares of the corporation's capital stock.

The board of directors may set apart out of any of the funds of the corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the corporation, and meeting contingencies.

6.5 Transfer of Stock. Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by an attorney duly authorized, and, subject to Section 6.3 of these bylaws, if such stock is certificated, upon the surrender of a certificate or certificates for a like number of shares, properly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer.

6.6 Stock Transfer Agreements. The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

6.7 Registered Stockholders. The corporation:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VII

MANNER OF GIVING NOTICE AND WAIVER

7.1 Notice of Stockholders' Meetings. Notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the corporation's records. An affidavit of the secretary or an assistant secretary of the corporation or of the transfer agent or other agent of the corporation that the notice has been given shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

7.2 Notice By Electronic Transmission. Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of incorporation or these bylaws, any notice to stockholders given by the corporation under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the corporation. Any such consent shall be deemed revoked if:

(i) the corporation is unable to deliver by electronic transmission two consecutive notices given by the corporation in accordance with such consent; and

(ii) such inability becomes known to the secretary or an assistant secretary of the corporation or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and

(iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

An “**electronic transmission**” means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved, and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient.

Notice by a form of electronic transmission shall not apply with respect to Sections 164, 296, 311, 312 or 324 of the DGCL.

7.3 Notice To Stockholders Sharing An Address. Except as otherwise prohibited under the DGCL, without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the corporation under the provisions of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Any such consent shall be revocable by the stockholder by written notice to the corporation. Any stockholder who fails to object in writing to the corporation, within 60 days of having been given written notice by the corporation of its intention to send the single notice, shall be deemed to have consented to receiving such single written notice.

7.4 Notice To Person With Whom Communication Is Unlawful. Whenever notice is required to be given, under the DGCL, the certificate of incorporation or these bylaws, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

7.5 Waiver of Notice. Whenever notice is required to be given under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

ARTICLE VIII

FORUM FOR CERTAIN ACTIONS

Unless the corporation consents in writing to the selection of an alternative forum, the Court of Chancery (the "Chancery Court") of the State of Delaware (or, in the event that the Chancery Court does not have jurisdiction, the federal district court for the District of Delaware or other state courts of the State of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or stockholder of the corporation to the corporation or to the corporation's stockholders, (iii) any action arising pursuant to any provision of the DGCL or the certificate of incorporation or these bylaws (as either may be amended from time to time) or (iv) any action asserting a claim

against the corporation governed by the internal affairs doctrine. If any action the subject matter of which is within the scope of the preceding sentence is filed in a court other than a court located within the State of Delaware (a "Foreign Action") in the name of any stockholder, such stockholder shall be deemed to have consented to (a) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce the preceding sentence and (b) having service of process made upon such stockholder in any such action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder.

ARTICLE IX
INDEMNIFICATION

9.1 Indemnification of Directors and Officers In Third Party Proceedings. Subject to the other provisions of this Article IX, the corporation shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**") (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director or officer of the corporation, or is or was a director or officer of the corporation serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such Proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any Proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that such person's conduct was unlawful.

9.2 Indemnification of Directors and Officers in Actions by or in the Right of the Corporation. Subject to the other provisions of this Article IX, the corporation shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the corporation, or is or was a director or officer of the corporation serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation; except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

9.3 Successful Defense. To the extent that a present or former director or officer of the corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding described in Section 9.1 or Section 9.2, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

9.4 Indemnification of Others. Subject to the other provisions of this Article IX, the corporation shall have power to indemnify its employees and agents to the extent not prohibited by the DGCL or other applicable law. The board of directors shall have the power to delegate to such person or persons as the board shall in its discretion determine the determination of whether employees or agents shall be indemnified.

9.5 Advance Payment of Expenses. Expenses (including attorneys' fees) actually and reasonably incurred by an officer or director of the corporation in defending any Proceeding shall be paid by the corporation in advance of the final disposition of such Proceeding upon receipt of a written request therefor (together with documentation reasonably evidencing such expenses) and an undertaking by or on behalf of the person to repay such amounts if it shall ultimately be determined that the person is not entitled to be indemnified under this Article IX or the DGCL. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents of the corporation or by persons serving at the request of the corporation as directors, officers, employees or agents of another corporation, partnership, joint venture, trust or other enterprise may be so paid upon such terms and conditions, if any, as the corporation deems appropriate. The right to advancement of expenses shall not apply to any claim for which indemnity is excluded pursuant to these bylaws, but shall apply to any Proceeding referenced in Section 9.6(ii) or 9.6(iii) prior to a determination that the person is not entitled to be indemnified by the corporation.

9.6 Limitation On Indemnification. Subject to the requirements in Section 9.3 and the DGCL, the corporation shall not be obligated to indemnify any person pursuant to this Article IX in connection with any Proceeding (or any part of any Proceeding):

- (i) for which payment has actually been made to or on behalf of such person under any statute, insurance policy, indemnity provision, vote or otherwise, except with respect to any excess beyond the amount paid;
- (ii) for an accounting or disgorgement of profits pursuant to Section 16(b) of the 1934 Act, or similar provisions of federal, state or local statutory law or common law, if such person is held liable therefor (including pursuant to any settlement arrangements);
- (iii) for any reimbursement of the corporation by such person of any bonus or other incentive-based or equity-based compensation or of any profits realized by such person from the sale of securities of the corporation, as required in each case under the 1934 Act (including any such reimbursements that arise from an accounting restatement of the corporation)

pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the “**Sarbanes-Oxley Act**”), or the payment to the corporation of profits arising from the purchase and sale by such person of securities in violation of Section 306 of the Sarbanes-Oxley Act), if such person is held liable therefor (including pursuant to any settlement arrangements);

(iv) initiated by such person, including any Proceeding (or any part of any Proceeding) initiated by such person against the corporation or its directors, officers, employees, agents or other indemnitees, unless (a) the board of directors authorized the Proceeding (or the relevant part of the Proceeding) prior to its initiation, (b) the corporation provides the indemnification, in its sole discretion, pursuant to the powers vested in the corporation under applicable law, (c) otherwise required to be made under Section 9.7 or (d) otherwise required by applicable law; or

(v) if prohibited by applicable law; *provided, however*, that if any provision or provisions of this Article IX shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (1) the validity, legality and enforceability of the remaining provisions of this Article IX (including, without limitation, each portion of any paragraph or clause containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (2) to the fullest extent possible, the provisions of this Article IX (including, without limitation, each such portion of any paragraph or clause containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

9.7 Determination; Claim. If a claim for indemnification or advancement of expenses under this Article IX is not paid in full within 90 days after receipt by the corporation of the written request therefor, the claimant shall be entitled to an adjudication by a court of competent jurisdiction of his or her entitlement to such indemnification or advancement of expenses. The corporation shall indemnify such person against any and all expenses that are incurred by such person in connection with any action for indemnification or advancement of expenses from the corporation under this Article IX, to the extent such person is successful in such action, and to the extent not prohibited by law. In any such suit, the corporation shall, to the fullest extent not prohibited by law, have the burden of proving that the claimant is not entitled to the requested indemnification or advancement of expenses.

9.8 Non-Exclusivity of Rights. The indemnification and advancement of expenses provided by, or granted pursuant to, this Article IX shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under the certificate of incorporation or any statute, bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person’s official capacity and as to action in another capacity while holding such office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advancement of expenses, to the fullest extent not prohibited by the DGCL or other applicable law.

9.9 Insurance. The corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under the provisions of the DGCL.

9.10 Survival. The rights to indemnification and advancement of expenses conferred by this Article IX shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

9.11 Effect of Repeal or Modification. A right to indemnification or to advancement of expenses arising under a provision of the certificate of incorporation or a bylaw shall not be eliminated or impaired by an amendment to the certificate of incorporation or these bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought, unless the provision in effect at the time of such act or omission explicitly authorizes such elimination or impairment after such action or omission has occurred.

9.12 Certain Definitions. For purposes of this Article IX, references to the "**corporation**" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Article IX with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued. For purposes of this Article IX, references to "**other enterprises**" shall include employee benefit plans; references to "**finances**" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "**servicing at the request of the corporation**" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "**not opposed to the best interests of the corporation**" as referred to in this Article IX.

ARTICLE X GENERAL MATTERS

10.1 Execution of Corporate Contracts and Instruments. Except as otherwise provided by law, the certificate of incorporation or these bylaws, the board of directors may authorize any officer or officers, or agent or agents, to enter into any contract or execute any document or instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the board of directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

10.2 Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the board of directors and may be changed by the board of directors.

10.3 Seal. The corporation may adopt a corporate seal, which may be altered by the board of directors. The corporation may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

10.4 Construction; Definitions. Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "**person**" includes both a corporation and a natural person.

ARTICLE XI AMENDMENTS

These bylaws may be adopted, amended or repealed by the stockholders entitled to vote; *provided, however*, that the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the total voting power of outstanding voting securities, voting together as a single class, shall be required for the stockholders of the corporation to alter, amend or repeal, or adopt any provision of these bylaws. The board of directors shall also have the power to adopt, amend or repeal bylaws.

A bylaw amendment adopted by stockholders which specifies the votes that shall be necessary for the election of directors shall not be further amended or repealed by the board of directors.

BANDWIDTH INC.

CERTIFICATE OF AMENDMENT OF BYLAWS

The undersigned hereby certifies that he is the duly elected, qualified, and acting Secretary of Bandwidth Inc., a Delaware corporation and that the foregoing bylaws were amended and restated on November , 2017 by the corporation's board of directors.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand this day of November, 2017.

W. Christopher Matton, Secretary

**BANDWIDTH INC.
2017 INCENTIVE AWARD PLAN**

**ARTICLE I.
PURPOSE**

The Plan's purpose is to enhance the Company's ability to attract, retain and motivate persons who make (or are expected to make) important contributions to the Company by providing these individuals with equity ownership opportunities. Capitalized terms used in the Plan are defined in Article XI.

**ARTICLE II.
ELIGIBILITY**

Service Providers are eligible to be granted Awards under the Plan, subject to the limitations described herein.

**ARTICLE III.
ADMINISTRATION AND DELEGATION**

3.1 Administration. The Plan is administered by the Administrator. The Administrator has authority to determine which Service Providers receive Awards, grant Awards and set Award terms and conditions, subject to the conditions and limitations in the Plan. The Administrator also has the authority to take all actions and make all determinations under the Plan, to interpret the Plan and Award Agreements and to adopt, amend and repeal Plan administrative rules, guidelines and practices as it deems advisable. The Administrator may correct defects and ambiguities, supply omissions and reconcile inconsistencies in the Plan or any Award as it deems necessary or appropriate to administer the Plan and any Awards. The Administrator's determinations under the Plan are in its sole discretion and will be final and binding on all persons having or claiming any interest in the Plan or any Award.

3.2 Appointment of Committees. To the extent Applicable Laws permit, the Board may delegate any or all of its powers under the Plan to one or more Committees or officers of the Company or any of its Subsidiaries. The Board may abolish any Committee or re-vest in itself any previously delegated authority at any time.

**ARTICLE IV.
STOCK AVAILABLE FOR AWARDS**

4.1 Number of Shares. Subject to adjustment under Article VIII and the terms of this Article IV, Awards may be made under the Plan covering up to the Overall Share Limit. As of the Plan's effective date under Section 10.3, the Company will cease granting awards under the Prior Plans; however, Prior Plan Awards will remain subject to the terms of the applicable Prior Plan. Shares issued under the Plan may consist of authorized but unissued Shares, Shares purchased on the open market or treasury Shares.

4.2 Share Recycling. If all or any part of an Award or Prior Plan Award expires, lapses or is terminated, exchanged for cash, surrendered, repurchased, canceled without having been fully exercised or forfeited, in any case, in a manner that results in the Company acquiring Shares covered by the Award or Prior Plan Award at a price not greater than the price (as adjusted to reflect any Equity Restructuring) paid by the Participant for such Shares or not issuing any Shares covered by the Award or Prior Plan

Award, the unused Shares covered by the Award or Prior Plan Award will, as applicable, become or again be available for Award grants under the Plan. Further, Shares delivered (either by actual delivery or attestation) to the Company by a Participant to satisfy the applicable exercise or purchase price of an Award or Prior Plan Award and/or to satisfy any applicable tax withholding obligation (including Shares retained by the Company from the Award or Prior Plan Award being exercised or purchased and/or creating the tax obligation) will, as applicable, become or again be available for Award grants under the Plan. The payment of Dividend Equivalents in cash in conjunction with any outstanding Awards or Prior Plan Awards shall not count against the Overall Share Limit.

4.3 Incentive Stock Option Limitations. Notwithstanding anything to the contrary herein, no more than 1,050,000 Shares may be issued pursuant to the exercise of Incentive Stock Options.

4.4 Substitute Awards. In connection with an entity's merger or consolidation with the Company or the Company's acquisition of an entity's property or stock, the Administrator may grant Awards in substitution for any options or other stock or stock-based awards granted before such merger or consolidation by such entity or its affiliate. Substitute Awards may be granted on such terms as the Administrator deems appropriate, notwithstanding limitations on Awards in the Plan. Substitute Awards will not count against the Overall Share Limit (nor shall Shares subject to a Substitute Award be added to the Shares available for Awards under the Plan as provided above), except that Shares acquired by exercise of substitute Incentive Stock Options will count against the maximum number of Shares that may be issued pursuant to the exercise of Incentive Stock Options under the Plan. Additionally, in the event that a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines has shares available under a pre-existing plan approved by stockholders and not adopted in contemplation of such acquisition or combination, the shares available for grant pursuant to the terms of such pre-existing plan (as adjusted, to the extent appropriate, using the exchange ratio or other adjustment or valuation ratio or formula used in such acquisition or combination to determine the consideration payable to the holders of common stock of the entities party to such acquisition or combination) may be used for Awards under the Plan and shall not reduce the Shares authorized for grant under the Plan (and Shares subject to such Awards shall not be added to the Shares available for Awards under the Plan as provided above); provided that Awards using such available shares shall not be made after the date awards or grants could have been made under the terms of the pre-existing plan, absent the acquisition or combination, and shall only be made to individuals who were not Employees or Directors prior to such acquisition or combination.

4.5 Non-Employee Director Compensation. Notwithstanding any provision to the contrary in the Plan, the Administrator may establish compensation for non-employee Directors from time to time, subject to the limitations in the Plan. The Administrator will from time to time determine the terms, conditions and amounts of all such non-employee Director compensation in its discretion and pursuant to the exercise of its business judgment, taking into account such factors, circumstances and considerations as it shall deem relevant from time to time, provided that the sum of any cash compensation, or other compensation, and the value (determined as of the grant date in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, or any successor thereto) of Awards granted to a non-employee Director as compensation for services as a non-employee Director during any fiscal year of the Company may not exceed \$150,000 increased to \$300,000 in the fiscal year of a non-employee Director's initial service as a non-employee Director. The Administrator may make exceptions to this limit for individual non-employee Directors in extraordinary circumstances, as the Administrator may determine in its discretion, provided that the non-employee Director receiving such additional compensation may not participate in the decision to award such compensation or in other contemporaneous compensation decisions involving non-employee Directors.

**ARTICLE V.
STOCK OPTIONS AND STOCK APPRECIATION RIGHTS**

5.1 General. The Administrator may grant Options or Stock Appreciation Rights to Service Providers subject to the limitations in the Plan, including any limitations in the Plan that apply to Incentive Stock Options. The Administrator will determine the number of Shares covered by each Option and Stock Appreciation Right, the exercise price of each Option and Stock Appreciation Right and the conditions and limitations applicable to the exercise of each Option and Stock Appreciation Right. A Stock Appreciation Right will entitle the Participant (or other person entitled to exercise the Stock Appreciation Right) to receive from the Company upon exercise of the exercisable portion of the Stock Appreciation Right an amount determined by multiplying the excess, if any, of the Fair Market Value of one Share on the date of exercise over the exercise price per Share of the Stock Appreciation Right by the number of Shares with respect to which the Stock Appreciation Right is exercised, subject to any limitations of the Plan or that the Administrator may impose and payable in cash, Shares valued at Fair Market Value or a combination of the two as the Administrator may determine or provide in the Award Agreement.

5.2 Exercise Price. The Administrator will establish each Option's and Stock Appreciation Right's exercise price and specify the exercise price in the Award Agreement. The exercise price will not be less than 100% of the Fair Market Value on the grant date of the Option or Stock Appreciation Right.

5.3 Duration. Each Option or Stock Appreciation Right will be exercisable at such times and as specified in the Award Agreement, provided that the term of an Option or Stock Appreciation Right will not exceed ten years. Notwithstanding the foregoing, if the Participant, prior to the end of the term of an Option or Stock Appreciation Right, violates the non-competition, non-solicitation, confidentiality or other similar restrictive covenant provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company or any of its Subsidiaries, the right of the Participant and the Participant's transferees to exercise any Option or Stock Appreciation Right issued to the Participant shall terminate immediately upon such violation, unless the Company otherwise determines. In addition, if, prior to the end of the term of an Option or Stock Appreciation Right, the Participant is given notice by the Company or any of its Subsidiaries of the Participant's Termination of Service by the Company or any of its Subsidiaries for Cause, and the effective date of such Termination of Service is subsequent to the date of the delivery of such notice, the right of the Participant and the Participant's transferees to exercise any Option or Stock Appreciation Right issued to the Participant shall be suspended from the time of the delivery of such notice until the earlier of (i) such time as it is determined or otherwise agreed that the Participant's service as a Service Provider will not be terminated for Cause as provided in such notice or (ii) the effective date of the Participant's Termination of Service by the Company or any of its Subsidiaries for Cause (in which case the right of the Participant and the Participant's transferees to exercise any Option or Stock Appreciation Right issued to the Participant will terminate immediately upon the effective date of such termination of Service).

5.4 Exercise. Options and Stock Appreciation Rights may be exercised by delivering to the Company a written notice of exercise, in a form the Administrator approves (which may be electronic), signed by the person authorized to exercise the Option or Stock Appreciation Right, together with, as applicable, payment in full (i) as specified in Section 5.5 for the number of Shares for which the Award is exercised and (ii) as specified in Section 9.5 for any applicable taxes. Unless the Administrator otherwise determines, an Option or Stock Appreciation Right may not be exercised for a fraction of a Share.

5.5 Payment Upon Exercise. Subject to Section 10.8, any Company insider trading policy (including blackout periods) and Applicable Laws, the exercise price of an Option must be paid by:

(a) cash, wire transfer of immediately available funds or by check payable to the order of the Company, provided that the Company may limit the use of one of the foregoing payment forms if one or more of the payment forms below is permitted;

(b) if there is a public market for Shares at the time of exercise, unless the Company otherwise determines, (A) delivery (including telephonically to the extent permitted by the Company) of an irrevocable and unconditional undertaking by a broker acceptable to the Company to deliver promptly to the Company sufficient funds to pay the exercise price, or (B) the Participant's delivery to the Company of a copy of irrevocable and unconditional instructions to a broker acceptable to the Company to deliver promptly to the Company cash or a check sufficient to pay the exercise price; provided that such amount is paid to the Company at such time as may be required by the Administrator;

(c) to the extent permitted by the Administrator, delivery (either by actual delivery or attestation) of Shares owned by the Participant valued at their Fair Market Value;

(d) to the extent permitted by the Administrator, surrendering Shares then issuable upon the Option's exercise valued at their Fair Market Value on the exercise date;

(e) to the extent permitted by the Administrator, delivery of a promissory note or any other property that the Administrator determines is good and valuable consideration; or

(f) to the extent permitted by the Company, any combination of the above payment forms approved by the Administrator.

ARTICLE VI. RESTRICTED STOCK; RESTRICTED STOCK UNITS

6.1 General. The Administrator may grant Restricted Stock, or the right to purchase Restricted Stock, to any Service Provider, subject to the Company's right to repurchase all or part of such shares at their issue price or other stated or formula price from the Participant (or to require forfeiture of such shares) if conditions the Administrator specifies in the Award Agreement are not satisfied before the end of the applicable restriction period or periods that the Administrator establishes for such Award. In addition, the Administrator may grant to Service Providers Restricted Stock Units, which may be subject to vesting and forfeiture conditions during the applicable restriction period or periods, as set forth in an Award Agreement. The Administrator will determine and set forth in the Award Agreement the terms and conditions for each Restricted Stock and Restricted Stock Unit Award, subject to the conditions and limitations contained in the Plan.

6.2 Restricted Stock.

(a) Dividends. Participants holding shares of Restricted Stock will be entitled to all ordinary cash dividends paid with respect to such Shares, unless the Administrator provides otherwise in the Award Agreement. In addition, unless the Administrator provides otherwise, if any dividends or distributions are paid in Shares, or consist of a dividend or distribution to holders of Common Stock of property other than an ordinary cash dividend, the Shares or other property will be subject to the same restrictions on transferability and forfeitability as the shares of Restricted Stock with respect to which they were paid.

(b) Stock Certificates. The Company may require that the Participant deposit in escrow with the Company (or its designee) any stock certificates issued in respect of shares of Restricted Stock, together with a stock power endorsed in blank.

6.3 Restricted Stock Units.

(a) Settlement. The Administrator may provide that settlement of Restricted Stock Units will occur upon or as soon as reasonably practicable after the Restricted Stock Units vest or will instead be deferred, on a mandatory basis or at the Participant's election, in a manner intended to comply with Section 409A.

(b) Stockholder Rights. A Participant will have no rights of a stockholder with respect to Shares subject to any Restricted Stock Unit unless and until the Shares are delivered in settlement of the Restricted Stock Unit.

(c) Dividend Equivalents. If the Administrator provides, a grant of Restricted Stock Units may provide a Participant with the right to receive Dividend Equivalents. Dividend Equivalents may be paid currently or credited to an account for the Participant, settled in cash or Shares and subject to the same restrictions on transferability and forfeitability as the Restricted Stock Units with respect to which the Dividend Equivalents are granted and subject to other terms and conditions as set forth in the Award Agreement.

ARTICLE VII. OTHER STOCK OR CASH BASED AWARDS

Other Stock or Cash Based Awards may be granted to Participants, including Awards entitling Participants to receive Shares to be delivered in the future and including annual or other periodic or long-term cash bonus awards (whether based on specified Performance Criteria or otherwise), in each case subject to any conditions and limitations in the Plan. Such Other Stock or Cash Based Awards will also be available as a payment form in the settlement of other Awards, as standalone payments and as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock or Cash Based Awards may be paid in Shares, cash or other property, as the Administrator determines. Subject to the provisions of the Plan, the Administrator will determine the terms and conditions of each Other Stock or Cash Based Award, including any purchase price, performance goal (which may be based on the Performance Criteria), transfer restrictions, and vesting conditions, which will be set forth in the applicable Award Agreement.

ARTICLE VIII. ADJUSTMENTS FOR CHANGES IN COMMON STOCK AND CERTAIN OTHER EVENTS

8.1 Equity Restructuring. In connection with any Equity Restructuring, notwithstanding anything to the contrary in this Article VIII, the Administrator will equitably adjust each outstanding Award as it deems appropriate to reflect the Equity Restructuring, which may include adjusting the number and type of securities subject to each outstanding Award and/or the Award's exercise price or grant price (if applicable), granting new Awards to Participants, and making a cash payment to Participants. The adjustments provided under this Section 8.1 will be nondiscretionary and final and binding on the affected Participant and the Company; provided that the Administrator will determine whether an adjustment is equitable.

8.2 Corporate Transactions. In the event of any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), reorganization, merger, consolidation, combination, amalgamation, repurchase, recapitalization, liquidation, dissolution, or sale, transfer, exchange or other disposition of all or substantially all of the assets of the Company, or sale or exchange of Common Stock or other securities of the Company, Change in Control, issuance of warrants or other

rights to purchase Common Stock or other securities of the Company, other similar corporate transaction or event, other unusual or nonrecurring transaction or event affecting the Company or its financial statements or any change in any Applicable Laws or accounting principles, the Administrator, on such terms and conditions as it deems appropriate, either by the terms of the Award or by action taken prior to the occurrence of such transaction or event (except that action to give effect to a change in Applicable Law or accounting principles may be made within a reasonable period of time after such change) and either automatically or upon the Participant's request, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to (x) prevent dilution or enlargement of the benefits or potential benefits intended by the Company to be made available under the Plan or with respect to any Award granted or issued under the Plan, (y) to facilitate such transaction or event or (z) give effect to such changes in Applicable Laws or accounting principles:

(a) To provide for the cancellation of any such Award in exchange for either an amount of cash or other property with a value equal to the amount that could have been obtained upon the exercise or settlement of the vested portion of such Award or realization of the Participant's rights under the vested portion of such Award, as applicable; provided that, if the amount that could have been obtained upon the exercise or settlement of the vested portion of such Award or realization of the Participant's rights, in any case, is equal to or less than zero, then the Award may be terminated without payment;

(b) To provide that such Award shall vest and, to the extent applicable, be exercisable as to all shares covered thereby, notwithstanding anything to the contrary in the Plan or the provisions of such Award;

(c) To provide that such Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and/or applicable exercise or purchase price, in all cases, as determined by the Administrator;

(d) To make adjustments in the number and type of shares of Common Stock (or other securities or property) subject to outstanding Awards and/or with respect to which Awards may be granted under the Plan (including, but not limited to, adjustments of the limitations in Article IV hereof on the maximum number and kind of shares which may be issued) and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Awards;

(e) To replace such Award with other rights or property selected by the Administrator; and/or

(f) To provide that the Award will terminate and cannot vest, be exercised or become payable after the applicable event.

8.3 Administrative Stand Still. In the event of any pending stock dividend, stock split, combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of Company assets to stockholders, or any other extraordinary transaction or change affecting the Shares or the share price of Common Stock, including any Equity Restructuring or any securities offering or other similar transaction, for administrative convenience, the Administrator may refuse to permit the exercise of any Award for up to sixty days before or after such transaction.

8.4 General. Except as expressly provided in the Plan or the Administrator's action under the Plan, no Participant will have any rights due to any subdivision or consolidation of Shares of any class, dividend payment, increase or decrease in the number of Shares of any class or dissolution, liquidation, merger, or consolidation of the Company or other corporation. Except as expressly provided with respect to an Equity Restructuring under Section 8.1 above or the Administrator's action under the Plan, no issuance by the Company of Shares of any class, or securities convertible into Shares of any class, will affect, and no adjustment will be made regarding, the number of Shares subject to an Award or the Award's grant or exercise price. The existence of the Plan, any Award Agreements and the Awards granted hereunder will not affect or restrict in any way the Company's right or power to make or authorize (i) any adjustment, recapitalization, reorganization or other change in the Company's capital structure or its business, (ii) any merger, consolidation dissolution or liquidation of the Company or sale of Company assets or (iii) any sale or issuance of securities, including securities with rights superior to those of the Shares or securities convertible into or exchangeable for Shares. The Administrator may treat Participants and Awards (or portions thereof) differently under this Article VIII.

ARTICLE IX.
GENERAL PROVISIONS APPLICABLE TO AWARDS

9.1 Transferability. Except as the Administrator may determine or provide in an Award Agreement or otherwise for Awards other than Incentive Stock Options, Awards may not be sold, assigned, transferred, pledged or otherwise encumbered, either voluntarily or by operation of law, except by will or the laws of descent and distribution, or, subject to the Administrator's consent, pursuant to a domestic relations order, and, during the life of the Participant, will be exercisable only by the Participant. References to a Participant, to the extent relevant in the context, will include references to a Participant's authorized transferee that the Administrator specifically approves.

9.2 Documentation. Each Award will be evidenced in an Award Agreement, which may be written or electronic, as the Administrator determines. Each Award may contain terms and conditions in addition to those set forth in the Plan.

9.3 Discretion. Except as the Plan otherwise provides, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award to a Participant need not be identical, and the Administrator need not treat Participants or Awards (or portions thereof) uniformly.

9.4 Termination of Status. The Administrator will determine how the disability, death, retirement, authorized leave of absence or any other change or purported change in a Participant's Service Provider status affects an Award and the extent to which, and the period during which, the Participant, the Participant's legal representative, conservator, guardian or Designated Beneficiary may exercise rights under the Award, if applicable.

9.5 Withholding. Each Participant must pay the Company, or make provision satisfactory to the Administrator for payment of, any taxes required by law to be withheld in connection with such Participant's Awards by the date of the event creating the tax liability. The Company may deduct an amount sufficient to satisfy such tax obligations based on the applicable statutory withholding rates (or such other rate as may be determined by the Company after considering any accounting consequences or costs) from any payment of any kind otherwise due to a Participant. Subject to Section 10.8 and any Company insider trading policy (including blackout periods), Participants may satisfy such tax obligations (i) in cash, by wire transfer of immediately available funds, by check made payable to the order of the Company, provided that the Company may limit the use of the foregoing payment forms if one or more of the payment forms below is permitted, (ii) to the extent permitted by the Administrator, in whole or in part by delivery of Shares, including Shares retained from the Award creating the tax obligation, valued at their Fair Market Value, (iii) if there is a public market for Shares at the time the tax obligations are satisfied, unless the Company otherwise determines, (A) delivery (including

telephonically to the extent permitted by the Company) of an irrevocable and unconditional undertaking by a broker acceptable to the Company to deliver promptly to the Company sufficient funds to satisfy the tax obligations, or (B) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a broker acceptable to the Company to deliver promptly to the Company cash or a check sufficient to satisfy the tax withholding; provided that such amount is paid to the Company at such time as may be required by the Administrator, or (iv) to the extent permitted by the Company, any combination of the foregoing payment forms approved by the Administrator. If any tax withholding obligation will be satisfied under clause (ii) of the immediately preceding sentence by the Company's retention of Shares from the Award creating the tax obligation and there is a public market for Shares at the time the tax obligation is satisfied, the Company may elect to instruct any brokerage firm determined acceptable to the Company for such purpose to sell on the applicable Participant's behalf some or all of the Shares retained and to remit the proceeds of the sale to the Company or its designee, and each Participant's acceptance of an Award under the Plan will constitute the Participant's authorization to the Company and instruction and authorization to such brokerage firm to complete the transactions described in this sentence.

9.6 Amendment of Award; Repricing. The Administrator may amend, modify or terminate any outstanding Award, including by substituting another Award of the same or a different type, changing the exercise or settlement date, and converting an Incentive Stock Option to a Non-Qualified Stock Option. The Participant's consent to such action will be required unless (i) the action, taking into account any related action, does not materially and adversely affect the Participant's rights under the Award, or (ii) the change is permitted under Article VIII or pursuant to Section 10.6. Notwithstanding the foregoing or anything in the Plan to the contrary, the Administrator may, without the approval of the stockholders of the Company, reduce the exercise price per share of outstanding Options or Stock Appreciation Rights or cancel outstanding Options or Stock Appreciation Rights in exchange for cash, other Awards or Options or Stock Appreciation Rights with an exercise price per share that is less than the exercise price per share of the original Options or Stock Appreciation Rights.

9.7 Conditions on Delivery of Stock. The Company will not be obligated to deliver any Shares under the Plan or remove restrictions from Shares previously delivered under the Plan until (i) all Award conditions have been met or removed to the Company's satisfaction, (ii) as determined by the Company, all other legal matters regarding the issuance and delivery of such Shares have been satisfied, including any applicable securities laws and stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Administrator deems necessary or appropriate to satisfy any Applicable Laws. The Company's inability to obtain authority from any regulatory body having jurisdiction, which the Administrator determines is necessary to the lawful issuance and sale of any securities, will relieve the Company of any liability for failing to issue or sell such Shares as to which such requisite authority has not been obtained.

9.8 Acceleration. The Administrator may at any time provide that any Award will become immediately vested and fully or partially exercisable, free of some or all restrictions or conditions, or otherwise fully or partially realizable.

9.9 Additional Terms of Incentive Stock Options. The Administrator may grant Incentive Stock Options only to employees of the Company, any of its present or future parent or subsidiary corporations, as defined in Sections 424(e) or (f) of the Code, respectively, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code. If an Incentive Stock Option is granted to a Greater Than 10% Stockholder, the exercise price will not be less than 110% of the Fair Market Value on the Option's grant date, and the term of the Option will not exceed five years. All Incentive Stock Options will be subject to and construed consistently with Section 422 of the Code. By

accepting an Incentive Stock Option, the Participant agrees to give prompt notice to the Company of dispositions or other transfers (other than in connection with a Change in Control) of Shares acquired under the Option made within (i) two years from the grant date of the Option or (ii) one year after the transfer of such Shares to the Participant, specifying the date of the disposition or other transfer and the amount the Participant realized, in cash, other property, assumption of indebtedness or other consideration, in such disposition or other transfer. Neither the Company nor the Administrator will be liable to a Participant, or any other party, if an Incentive Stock Option fails or ceases to qualify as an "incentive stock option" under Section 422 of the Code. Any Incentive Stock Option or portion thereof that fails to qualify as an "incentive stock option" under Section 422 of the Code for any reason, including becoming exercisable with respect to Shares having a fair market value exceeding the \$100,000 limitation under Treasury Regulation Section 1.422-4, will be a Non-Qualified Stock Option.

ARTICLE X. MISCELLANEOUS

10.1 No Right to Employment or Other Status. No person will have any claim or right to be granted an Award, and the grant of an Award will not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan or any Award, except as expressly provided in an Award Agreement.

10.2 No Rights as Stockholder; Certificates. Subject to the Award Agreement, no Participant or Designated Beneficiary will have any rights as a stockholder with respect to any Shares to be distributed under an Award until becoming the record holder of such Shares. Notwithstanding any other provision of the Plan, unless the Administrator otherwise determines or Applicable Laws require, the Company will not be required to deliver to any Participant certificates evidencing Shares issued in connection with any Award and instead such Shares may be recorded in the books of the Company (or, as applicable, its transfer agent or stock plan administrator). The Company may place legends on stock certificates issued under the Plan that the Administrator deems necessary or appropriate to comply with Applicable Laws.

10.3 Effective Date and Term of Plan. Unless earlier terminated by the Board, the Plan will become effective on the day prior to the Public Trading Date and will remain in effect until the tenth anniversary of the earlier of (i) the date the Board adopted the Plan or (ii) the date the Company's stockholders approved the Plan, but Awards previously granted may extend beyond that date in accordance with the Plan. If the Plan is not approved by the Company's stockholders, the Plan will not become effective, no Awards will be granted under the Plan and the Prior Plans will continue in full force and effect in accordance with their terms.

10.4 Amendment of Plan. The Administrator may amend, suspend or terminate the Plan at any time; provided that no amendment, other than an increase to the Overall Share Limit, may materially and adversely affect any Award outstanding at the time of such amendment without the affected Participant's consent. No Awards may be granted under the Plan during any suspension period or after Plan termination. Awards outstanding at the time of any Plan suspension or termination will continue to be governed by the Plan and the Award Agreement, as in effect before such suspension or termination. The Board will obtain stockholder approval of any Plan amendment to the extent necessary to comply with Applicable Laws.

10.5 Provisions for Foreign Participants. The Administrator may modify Awards granted to Participants who are foreign nationals or employed outside the United States or establish subplans or procedures under the Plan to address differences in laws, rules, regulations or customs of such foreign jurisdictions with respect to tax, securities, currency, employee benefit or other matters.

10.6 Section 409A.

(a) General. The Company intends that all Awards be structured to comply with, or be exempt from, Section 409A, such that no adverse tax consequences, interest, or penalties under Section 409A apply. Notwithstanding anything in the Plan or any Award Agreement to the contrary, the Administrator may, without a Participant's consent, amend this Plan or Awards, adopt policies and procedures, or take any other actions (including amendments, policies, procedures and retroactive actions) as are necessary or appropriate to preserve the intended tax treatment of Awards, including any such actions intended to (A) exempt this Plan or any Award from Section 409A, or (B) comply with Section 409A, including regulations, guidance, compliance programs and other interpretative authority that may be issued after an Award's grant date. The Company makes no representations or warranties as to an Award's tax treatment under Section 409A or otherwise. The Company will have no obligation under this Section 10.6 or otherwise to avoid the taxes, penalties or interest under Section 409A with respect to any Award and will have no liability to any Participant or any other person if any Award, compensation or other benefits under the Plan are determined to constitute noncompliant "nonqualified deferred compensation" subject to taxes, penalties or interest under Section 409A.

(b) Separation from Service. If an Award constitutes "nonqualified deferred compensation" under Section 409A, any payment or settlement of such Award upon a termination of a Participant's Service Provider relationship will, to the extent necessary to avoid taxes under Section 409A, be made only upon the Participant's "separation from service" (within the meaning of Section 409A), whether such "separation from service" occurs upon or after the termination of the Participant's Service Provider relationship. For purposes of this Plan or any Award Agreement relating to any such payments or benefits, references to a "termination," "termination of employment" or like terms means a "separation from service."

(c) Payments to Specified Employees. Notwithstanding any contrary provision in the Plan or any Award Agreement, any payment(s) of "nonqualified deferred compensation" required to be made under an Award to a "specified employee" (as defined under Section 409A and as the Administrator determines) due to his or her "separation from service" will, to the extent necessary to avoid taxes under Section 409A(a)(2)(B)(i) of the Code, be delayed for the six-month period immediately following such "separation from service" (or, if earlier, until the specified employee's death) and will instead be paid (as set forth in the Award Agreement) on the day immediately following such six-month period or as soon as administratively practicable thereafter (without interest). Any payments of "nonqualified deferred compensation" under such Award payable more than six months following the Participant's "separation from service" will be paid at the time or times the payments are otherwise scheduled to be made.

10.7 Limitations on Liability. Notwithstanding any other provisions of the Plan, no individual acting as a director, officer, other employee or agent of the Company or any Subsidiary will be liable to any Participant, former Participant, spouse, beneficiary, or any other person for any claim, loss, liability, or expense incurred in connection with the Plan or any Award, and such individual will not be personally liable with respect to the Plan because of any contract or other instrument executed in his or her capacity as an Administrator, director, officer, other employee or agent of the Company or any Subsidiary. The Company will indemnify and hold harmless each director, officer, other employee and agent of the Company or any Subsidiary that has been or will be granted or delegated any duty or power relating to the Plan's administration or interpretation, against any cost or expense (including attorneys' fees) or liability (including any sum paid in settlement of a claim with the Administrator's approval) arising from any act or omission concerning this Plan unless arising from such person's own fraud or bad faith.

10.8 Lock-Up Period. The Company may, at the request of any underwriter representative or otherwise, in connection with registering the offering of any Company securities under the Securities Act, prohibit Participants from, directly or indirectly, selling or otherwise transferring any Shares or other Company securities during a period of up to one hundred eighty days following the effective date of a Company registration statement filed under the Securities Act, or such longer period as determined by the underwriter.

10.9 Data Privacy. As a condition for receiving any Award, each Participant explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of personal data as described in this section by and among the Company and its Subsidiaries and affiliates exclusively for implementing, administering and managing the Participant's participation in the Plan. The Company and its Subsidiaries and affiliates may hold certain personal information about a Participant, including the Participant's name, address and telephone number; birthdate; social security, insurance number or other identification number; salary; nationality; job title(s); any Shares held in the Company or its Subsidiaries and affiliates; and Award details, to implement, manage and administer the Plan and Awards (the "Data"). The Company and its Subsidiaries and affiliates may transfer the Data amongst themselves as necessary to implement, administer and manage a Participant's participation in the Plan, and the Company and its Subsidiaries and affiliates may transfer the Data to third parties assisting the Company with Plan implementation, administration and management. These recipients may be located in the Participant's country, or elsewhere, and the Participant's country may have different data privacy laws and protections than the recipients' country. By accepting an Award, each Participant authorizes such recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, to implement, administer and manage the Participant's participation in the Plan, including any required Data transfer to a broker or other third party with whom the Company or the Participant may elect to deposit any Shares. The Data related to a Participant will be held only as long as necessary to implement, administer, and manage the Participant's participation in the Plan. A Participant may, at any time, view the Data that the Company holds regarding such Participant, request additional information about the storage and processing of the Data regarding such Participant, recommend any necessary corrections to the Data regarding the Participant or refuse or withdraw the consents in this Section 10.9 in writing, without cost, by contacting the local human resources representative. The Company may cancel Participant's ability to participate in the Plan and, in the Administrator's discretion, the Participant may forfeit any outstanding Awards if the Participant refuses or withdraws the consents in this Section 10.9. For more information on the consequences of refusing or withdrawing consent, Participants may contact their local human resources representative.

10.10 Severability. If any portion of the Plan or any action taken under it is held illegal or invalid for any reason, the illegality or invalidity will not affect the remaining parts of the Plan, and the Plan will be construed and enforced as if the illegal or invalid provisions had been excluded, and the illegal or invalid action will be null and void.

10.11 Governing Documents. If any contradiction occurs between the Plan and any Award Agreement or other written agreement between a Participant and the Company (or any Subsidiary) that the Administrator has approved, the Plan will govern, unless it is expressly specified in such Award Agreement or other written document that a specific provision of the Plan will not apply.

10.12 Governing Law. The Plan and all Awards will be governed by and interpreted in accordance with the laws of the State of Delaware, disregarding any state's choice-of-law principles requiring the application of a jurisdiction's laws other than the State of Delaware.

10.13 Claw-back Provisions. All Awards (including any proceeds, gains or other economic benefit the Participant actually or constructively receives upon receipt or exercise of any Award or the receipt or resale of any Shares underlying the Award) will be subject to any Company claw-back policy, including any claw-back policy adopted to comply with Applicable Laws (including the Dodd-Frank Wall Street Reform and Consumer Protection Act and any rules or regulations promulgated thereunder) as set forth in such claw-back policy or the Award Agreement.

10.14 Titles and Headings. The titles and headings in the Plan are for convenience of reference only and, if any conflict, the Plan's text, rather than such titles or headings, will control.

10.15 Conformity to Securities Laws. Participant acknowledges that the Plan is intended to conform to the extent necessary with Applicable Laws. Notwithstanding anything herein to the contrary, the Plan and all Awards will be administered only in conformance with Applicable Laws. To the extent Applicable Laws permit, the Plan and all Award Agreements will be deemed amended as necessary to conform to Applicable Laws.

10.16 Relationship to Other Benefits. No payment under the Plan will be taken into account in determining any benefits under any pension, retirement, savings, profit sharing, group insurance, welfare or other benefit plan of the Company or any Subsidiary except as expressly provided in writing in such other plan or an agreement thereunder.

10.17 Broker-Assisted Sales. In the event of a broker-assisted sale of Shares in connection with the payment of amounts owed by a Participant under or with respect to the Plan or Awards, including amounts to be paid under the final sentence of Section 9.5: (a) any Shares to be sold through the broker-assisted sale will be sold on the day the payment first becomes due, or as soon thereafter as practicable; (b) such Shares may be sold as part of a block trade with other Participants in the Plan in which all participants receive an average price; (c) the applicable Participant will be responsible for all broker's fees and other costs of sale, and by accepting an Award, each Participant agrees to indemnify and hold the Company harmless from any losses, costs, damages, or expenses relating to any such sale; (d) to the extent the Company or its designee receives proceeds of such sale that exceed the amount owed, the Company will pay such excess in cash to the applicable Participant as soon as reasonably practicable; (e) the Company and its designees are under no obligation to arrange for such sale at any particular price; and (f) in the event the proceeds of such sale are insufficient to satisfy the Participant's applicable obligation, the Participant may be required to pay immediately upon demand to the Company or its designee an amount in cash sufficient to satisfy any remaining portion of the Participant's obligation.

ARTICLE XI. DEFINITIONS

As used in the Plan, the following words and phrases will have the following meanings:

11.1 "**Administrator**" means the Board or a Committee to the extent that the Board's powers or authority under the Plan have been delegated to such Committee.

11.2 "**Applicable Laws**" means the requirements relating to the administration of equity incentive plans under U.S. federal and state securities, tax and other applicable laws, rules and regulations, the applicable rules of any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws and rules of any foreign country or other jurisdiction where Awards are granted.

11.3 “**Award**” means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units or Other Stock or Cash Based Awards.

11.4 “**Award Agreement**” means a written agreement evidencing an Award, which may be electronic, that contains such terms and conditions as the Administrator determines, consistent with and subject to the terms and conditions of the Plan.

11.5 “**Board**” means the Board of Directors of the Company.

11.6 “**Cause**” means (i) if a Participant is a party to a written employment or consulting agreement with the Company or any of its Subsidiaries or an Award Agreement in which the term “cause” is defined (a “**Relevant Agreement**”), “Cause” as defined in the Relevant Agreement, and (ii) if no Relevant Agreement exists, (A) the Administrator’s determination that the Participant failed to substantially perform the Participant’s duties (other than a failure resulting from the Participant’s Disability); (B) the Administrator’s determination that the Participant failed to carry out, or comply with any lawful and reasonable directive of the Board or the Participant’s immediate supervisor; (C) the occurrence of any act or omission by the Participant that could reasonably be expected to result in (or has resulted in) the Participant’s conviction, plea of no contest, plea of nolo contendere, or imposition of unadjudicated probation for any felony or indictable offense or crime involving moral turpitude; (D) the Participant’s unlawful use (including being under the influence) or possession of illegal drugs on the premises of the Company or any of its Subsidiaries or while performing the Participant’s duties and responsibilities for the Company or any of its Subsidiaries; or (E) the Participant’s commission of an act of fraud, embezzlement, misappropriation, misconduct, or breach of fiduciary duty against the Company or any of its Subsidiaries.

11.7 “**Change in Control**” means and includes each of the following:

(a) A transaction or series of transactions (other than an offering of Common Stock to the general public through a registration statement filed with the Securities and Exchange Commission or a transaction or series of transactions that meets the requirements of clauses (i) and (ii) of subsection (c) below) whereby any “person” or related “group” of “persons” (as such terms are used in Sections 13(d) and 14(d)(2) of the Exchange Act) (other than the Company, any of its Subsidiaries, an employee benefit plan maintained by the Company or any of its Subsidiaries or a “person” that, prior to such transaction, directly or indirectly controls, is controlled by, or is under common control with, the Company) directly or indirectly acquires beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities of the Company possessing more than 50% of the total combined voting power of the Company’s securities outstanding immediately after such acquisition; or

(b) During any period of two consecutive years, individuals who, at the beginning of such period, constitute the Board together with any new Director(s) (other than a Director designated by a person who shall have entered into an agreement with the Company to effect a transaction described in subsections (a) or (c)) whose election by the Board or nomination for election by the Company’s stockholders was approved by a vote of at least two-thirds of the Directors then still in office who either were Directors at the beginning of the two-year period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or

(c) The consummation by the Company (whether directly involving the Company or indirectly involving the Company through one or more intermediaries) of (x) a merger, consolidation, reorganization, or business combination or (y) a sale or other disposition of all or substantially all of the Company's assets in any single transaction or series of related transactions or (z) the acquisition of assets or stock of another entity, in each case other than a transaction:

(i) which results in the Company's voting securities outstanding immediately before the transaction continuing to represent (either by remaining outstanding or by being converted into voting securities of the Company or the person that, as a result of the transaction, controls, directly or indirectly, the Company or owns, directly or indirectly, all or substantially all of the Company's assets or otherwise succeeds to the business of the Company (the Company or such person, the "Successor Entity")) directly or indirectly, at least a majority of the combined voting power of the Successor Entity's outstanding voting securities immediately after the transaction, and

(ii) after which no person or group beneficially owns voting securities representing 50% or more of the combined voting power of the Successor Entity; provided, however, that no person or group shall be treated for purposes of this clause (ii) as beneficially owning 50% or more of the combined voting power of the Successor Entity solely as a result of the voting power held in the Company prior to the consummation of the transaction.

Notwithstanding the foregoing, if a Change in Control constitutes a payment event with respect to any Award (or portion of any Award) that provides for the deferral of compensation that is subject to Section 409A, to the extent required to avoid the imposition of additional taxes under Section 409A, the transaction or event described in subsection (a), (b) or (c) with respect to such Award (or portion thereof) shall only constitute a Change in Control for purposes of the payment timing of such Award if such transaction also constitutes a "change in control event," as defined in Treasury Regulation Section 1.409A-3(i)(5).

The Administrator shall have full and final authority, which shall be exercised in its discretion, to determine conclusively whether a Change in Control has occurred pursuant to the above definition, the date of the occurrence of such Change in Control and any incidental matters relating thereto; provided that any exercise of authority in conjunction with a determination of whether a Change in Control is a "change in control event" as defined in Treasury Regulation Section 1.409A-3(i)(5) shall be consistent with such regulation.

11.8 "**Code**" means the Internal Revenue Code of 1986, as amended, and the regulations issued thereunder.

11.9 "**Committee**" means one or more committees or subcommittees of the Board, which may include one or more Company directors or executive officers, to the extent Applicable Laws permit. To the extent required to comply with the provisions of Rule 16b-3, it is intended that each member of the Committee will be, at the time the Committee takes any action with respect to an Award that is subject to Rule 16b-3, a "non-employee director" within the meaning of Rule 16b-3; however, a Committee member's failure to qualify as a "non-employee director" within the meaning of Rule 16b-3 will not invalidate any Award granted by the Committee that is otherwise validly granted under the Plan.

11.10 "**Common Stock**" means the Class A common stock of the Company.

11.11 "**Company**" means Bandwidth Inc., a Delaware corporation, or any successor.

11.12 "**Consultant**" means any person, including any adviser, engaged by the Company or its parent or Subsidiary to render services to such entity if the consultant or adviser: (i) renders bona fide services to the Company; (ii) renders services not in connection with the offer or sale of securities in a capital-raising transaction and does not directly or indirectly promote or maintain a market for the Company's securities; and (iii) is a natural person.

11.13 “**Designated Beneficiary**” means the beneficiary or beneficiaries the Participant designates, in a manner the Administrator determines, to receive amounts due or exercise the Participant’s rights if the Participant dies or becomes incapacitated. Without a Participant’s effective designation, “Designated Beneficiary” will mean the Participant’s estate.

11.14 “**Director**” means a Board member.

11.15 “**Disability**” means a permanent and total disability under Section 22(e)(3) of the Code, as amended.

11.16 “**Dividend Equivalents**” means a right granted to a Participant under the Plan to receive the equivalent value (in cash or Shares) of dividends paid on Shares.

11.17 “**Employee**” means any employee of the Company or its Subsidiaries.

11.18 “**Equity Restructuring**” means a nonreciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split, spin-off or recapitalization through a large, nonrecurring cash dividend, that affects the number or kind of Shares (or other Company securities) or the share price of Common Stock (or other Company securities) and causes a change in the per share value of the Common Stock underlying outstanding Awards.

11.19 “**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

11.20 “**Fair Market Value**” means, as of any date, the value of Common Stock determined as follows: (i) if the Common Stock is listed on any established stock exchange, its Fair Market Value will be the closing sales price for such Common Stock as quoted on such exchange for such date, or if no sale occurred on such date, the last day preceding such date during which a sale occurred, as reported in The Wall Street Journal or another source the Administrator deems reliable; (ii) if the Common Stock is not traded on a stock exchange but is quoted on a national market or other quotation system, the closing sales price on such date, or if no sales occurred on such date, then on the last date preceding such date during which a sale occurred, as reported in The Wall Street Journal or another source the Administrator deems reliable; or (iii) without an established market for the Common Stock, the Administrator will determine the Fair Market Value in its discretion. Notwithstanding the foregoing, with respect to any Award granted on the pricing date of the Company’s initial public offering, the Fair Market Value shall mean the initial public offering price of a Share as set forth in the Company’s final prospectus relating to its initial public offering filed with the Securities and Exchange Commission.

11.21 “**Greater Than 10% Stockholder**” means an individual then owning (within the meaning of Section 424(d) of the Code) more than 10% of the total combined voting power of all classes of stock of the Company or its parent or subsidiary corporation, as defined in Section 424(e) and (f) of the Code, respectively.

11.22 “**Incentive Stock Option**” means an Option intended to qualify as an “incentive stock option” as defined in Section 422 of the Code.

11.23 “**Non-Qualified Stock Option**” means an Option not intended or not qualifying as an Incentive Stock Option.

11.24 “**Option**” means an option to purchase Shares.

11.25 “**Other Stock or Cash Based Awards**” means cash awards, awards of Shares, and other awards valued wholly or partially by referring to, or are otherwise based on, Shares or other property.

11.26 “**Overall Share Limit**” means the sum of (i) 1,050,000 Shares; (ii) any shares of Common Stock which are subject to Prior Plan Awards which become available for issuance under the Plan pursuant to Article IV; and (iii) an annual increase on the first day of each calendar year beginning January 1, 2018 and ending on and including January 1, 2027, equal to 5% of the aggregate number of shares of Common Stock outstanding on the final day of the immediately preceding calendar year.

11.27 “**Participant**” means a Service Provider who has been granted an Award.

11.28 “**Performance Criteria**” mean the criteria (and adjustments) that the Administrator may select for an Award to establish performance goals for a performance period, which may include the following: net earnings or losses (either before or after one or more of interest, taxes, depreciation, amortization, and non-cash equity-based compensation expense); gross or net sales or revenue or sales or revenue growth; net income (either before or after taxes) or adjusted net income; profits (including but not limited to gross profits, net profits, profit growth, net operation profit or economic profit), profit return ratios or operating margin; budget or operating earnings (either before or after taxes or before or after allocation of corporate overhead and bonus); cash flow (including operating cash flow and free cash flow or cash flow return on capital); return on assets; return on capital or invested capital; cost of capital; return on equity; total stockholder return; return on sales; costs, reductions in costs and cost control measures; expenses; working capital; earnings or loss per share; adjusted earnings or loss per share; price per share or dividends per share (or appreciation in or maintenance of such price or dividends); regulatory achievements or compliance; implementation, completion or attainment of objectives relating to research, development, regulatory, commercial, or strategic milestones or developments; market share; economic value or economic value added models; division, group or corporate financial goals; customer satisfaction/growth; customer service; employee satisfaction; recruitment and maintenance of personnel; human resources management; supervision of litigation and other legal matters; strategic partnerships and transactions; financial ratios (including those measuring liquidity, activity, profitability or leverage); debt levels or reductions; sales-related goals; financing and other capital raising transactions; cash on hand; acquisition activity; investment sourcing activity; safety; and marketing initiatives, any of which may be measured in absolute terms or as compared to any incremental increase or decrease. Such performance goals also may be based solely by reference to the Company’s performance or the performance of a Subsidiary, division, business segment or business unit of the Company or a Subsidiary, or based upon performance relative to performance of other companies or upon comparisons of any of the indicators of performance relative to performance of other companies. The Committee may provide for exclusion of the impact of an event or occurrence which the Committee determines should appropriately be excluded, including (a) restructurings, discontinued operations, extraordinary items, and other unusual, infrequently occurring or non-recurring charges or events, (b) asset write-downs, (c) litigation or claim judgments or settlements, (d) acquisitions or divestitures, (e) reorganization or change in the corporate structure or capital structure of the Company, (f) an event either not directly related to the operations of the Company, Subsidiary, division, business segment or business unit or not within the reasonable control of management, (g) foreign exchange gains and losses, (h) a change in the fiscal year of the Company, (i) the refinancing or repurchase of bank loans or debt securities, (j) unbudgeted capital expenditures, (k) the issuance or repurchase of equity securities and other changes in the number of outstanding shares, (l) conversion of some or all of convertible securities to Common Stock, (m) any business interruption event (n) the cumulative effects of tax or accounting changes in accordance with U.S. generally accepted accounting principles, or (o) the effect of changes in other laws or regulatory rules affecting reported results.

11.29 “**Plan**” means this 2017 Incentive Award Plan.

11.30 "**Prior Plans**" means, collectively, the Company's 2001 Stock Option Plan, the Company's 2010 Equity Compensation Plan and any prior equity incentive plans of the Company or its predecessor.

11.31 "**Prior Plan Award**" means an award outstanding under the Prior Plans as of the Plan's effective date in Section 10.3

11.32 "**Public Trading Date**" means the first date upon which the Common Stock is listed (or approved for listing) upon notice of issuance on any securities exchange or designated (or approved for designation) upon notice of issuance as a national market security on an interdealer quotation system, or, if earlier, the date on which the Company becomes a "publicly held corporation" for purposes of Treasury Regulation Section 1.162-27(c)(1).

11.33 "**Restricted Stock**" means Shares awarded to a Participant under Article VI subject to certain vesting conditions and other restrictions.

11.34 "**Restricted Stock Unit**" means an unfunded, unsecured right to receive, on the applicable settlement date, one Share or an amount in cash or other consideration determined by the Administrator to be of equal value as of such settlement date, subject to certain vesting conditions and other restrictions.

11.35 "**Rule 16b-3**" means Rule 16b-3 promulgated under the Exchange Act.

11.36 "**Section 409A**" means Section 409A of the Code and all regulations, guidance, compliance programs and other interpretative authority thereunder.

11.37 "**Securities Act**" means the Securities Act of 1933, as amended.

11.38 "**Service Provider**" means an Employee, Consultant or Director.

11.39 "**Shares**" means shares of Common Stock.

11.40 "**Stock Appreciation Right**" means a stock appreciation right granted under Article V.

11.41 "**Subsidiary**" means any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities beginning with the Company if each of the entities other than the last entity in the unbroken chain beneficially owns, at the time of the determination, securities or interests representing at least 50% of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.

11.42 "**Substitute Awards**" shall mean Awards granted or Shares issued by the Company in assumption of, or in substitution or exchange for, awards previously granted, or the right or obligation to make future awards, in each case by a company acquired by the Company or any Subsidiary or with which the Company or any Subsidiary combines.

11.43 "**Termination of Service**" means the date the Participant ceases to be a Service Provider.

* * * * *

BANDWIDTH INC.
2017 INCENTIVE AWARD PLAN
STOCK OPTION GRANT NOTICE

Capitalized terms not specifically defined in this Stock Option Grant Notice (the “**Grant Notice**”) have the meanings given to them in the 2017 Incentive Award Plan (as amended from time to time, the “**Plan**”) of Bandwidth Inc. (the “**Company**”).

The Company has granted to the participant listed below (“**Participant**”) the stock option described in this Grant Notice (the “**Option**”), subject to the terms and conditions of the Plan and the Stock Option Agreement attached as **Exhibit A** (the “**Agreement**”), both of which are incorporated into this Grant Notice by reference.

Participant:

Grant Date:

Exercise Price per Share:

Shares Subject to the Option:

Final Expiration Date:

Vesting Commencement Date:

Vesting Schedule: [To be specified in individual award agreements]

Type of Option [Incentive Stock Option/Non-Qualified Stock Option]

By Participant’s signature below, Participant agrees to be bound by the terms of this Grant Notice, the Plan and the Agreement. Participant has reviewed the Plan, this Grant Notice and the Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, this Grant Notice and the Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice or the Agreement.

BANDWIDTH INC.

PARTICIPANT

By: _____

Name: _____

[Participant Name]

Title: _____

STOCK OPTION AGREEMENT

Capitalized terms not specifically defined in this Agreement have the meanings specified in the Grant Notice or, if not defined in the Grant Notice, in the Plan.

**ARTICLE XII.
GENERAL**

12.1 Grant of Option. The Company has granted to Participant the Option effective as of the grant date set forth in the Grant Notice (the "**Grant Date**").

12.2 Incorporation of Terms of Plan. The Option is subject to the terms and conditions set forth in this Agreement and the Plan, which is incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan will control.

**ARTICLE XIII.
PERIOD OF EXERCISABILITY**

13.1 Commencement of Exercisability. The Option will vest and become exercisable according to the vesting schedule in the Grant Notice (the "**Vesting Schedule**") except that any fraction of a Share as to which the Option would be vested or exercisable will be accumulated and will vest and become exercisable only when a whole Share has accumulated. Notwithstanding anything in the Grant Notice, the Plan or this Agreement to the contrary, unless the Administrator otherwise determines, the Option will immediately expire and be forfeited as to any portion that is not vested and exercisable as of Participant's Termination of Service for any reason.

13.2 Duration of Exercisability. The Vesting Schedule is cumulative. Any portion of the Option which vests and becomes exercisable will remain vested and exercisable until the Option expires. The Option will be forfeited immediately upon its expiration.

13.3 Expiration of Option. The Option may not be exercised to any extent by anyone after, and will expire on, the first of the following to occur:

(a) The final expiration date in the Grant Notice;

(b) Except as the Administrator may otherwise approve, the expiration of three (3) months from the date of Participant's Termination of Service, unless Participant's Termination of Service is for Cause or by reason of Participant's death or Disability;

(c) Except as the Administrator may otherwise approve, the expiration of one (1) year from the date of Participant's Termination of Service by reason of Participant's death or Disability; and

(d) Except as the Administrator may otherwise approve, Participant's Termination of Service for Cause.

**ARTICLE XIV.
EXERCISE OF OPTION**

14.1 Person Eligible to Exercise. During Participant's lifetime, only Participant may exercise the Option. After Participant's death, any exercisable portion of the Option may, prior to the time the Option expires, be exercised by Participant's Designated Beneficiary as provided in the Plan.

14.2 Partial Exercise. Any exercisable portion of the Option or the entire Option, if then wholly exercisable, may be exercised, in whole or in part, according to the procedures in the Plan at any time prior to the time the Option or portion thereof expires, except that the Option may only be exercised for whole Shares.

14.3 Tax Withholding.

(a) The Company has the right and option, but not the obligation, to treat Participant's failure to provide timely payment in accordance with the Plan of any withholding tax arising in connection with the Option as Participant's election to satisfy all or any portion of the withholding tax by requesting the Company retain Shares otherwise issuable under the Option.

(b) Participant acknowledges that Participant is ultimately liable and responsible for all taxes owed in connection with the Option, regardless of any action the Company or any Subsidiary takes with respect to any tax withholding obligations that arise in connection with the Option. Neither the Company nor any Subsidiary makes any representation or undertaking regarding the treatment of any tax withholding in connection with the awarding, vesting or exercise of the Option or the subsequent sale of Shares. The Company and the Subsidiaries do not commit and are under no obligation to structure the Option to reduce or eliminate Participant's tax liability.

**ARTICLE XV.
OTHER PROVISIONS**

15.1 Adjustments. Participant acknowledges that the Option is subject to adjustment, modification and termination in certain events as provided in this Agreement and the Plan.

15.2 Notices. Any notice to be given under the terms of this Agreement to the Company must be in writing and addressed to the Company in care of the Company's General Counsel at the Company's principal office or the General Counsel's then-current email address or facsimile number. Any notice to be given under the terms of this Agreement to Participant must be in writing and addressed to Participant (or, if Participant is then deceased, to the person entitled to exercise the Option) at Participant's last known mailing address, email address or facsimile number in the Company's personnel files. By a notice given pursuant to this Section, either party may designate a different address for notices to be given to that party. Any notice will be deemed duly given when actually received, when sent by email, when sent by certified mail (return receipt requested) and deposited with postage prepaid in a post office or branch post office regularly maintained by the United States Postal Service, when delivered by a nationally recognized express shipping company or upon receipt of a facsimile transmission confirmation.

15.3 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

15.4 Conformity to Securities Laws. Participant acknowledges that the Plan, the Grant Notice and this Agreement are intended to conform to the extent necessary with all Applicable Laws and, to the extent Applicable Laws permit, will be deemed amended as necessary to conform to Applicable Laws.

15.5 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement will inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth in the Plan, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

15.6 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the Grant Notice, this Agreement and the Option will be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3) that are requirements for the application of such exemptive rule. To the extent Applicable Laws permit, this Agreement will be deemed amended as necessary to conform to such applicable exemptive rule.

15.7 Entire Agreement. The Plan, the Grant Notice and this Agreement (including any exhibit hereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

15.8 Agreement Severable. In the event that any provision of the Grant Notice or this Agreement is held illegal or invalid, the provision will be severable from, and the illegality or invalidity of the provision will not be construed to have any effect on, the remaining provisions of the Grant Notice or this Agreement.

15.9 Limitation on Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and may not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant will have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the Option, and rights no greater than the right to receive the Shares as a general unsecured creditor with respect to the Option, as and when exercised pursuant to the terms hereof.

15.10 Not a Contract of Employment. Nothing in the Plan, the Grant Notice or this Agreement confers upon Participant any right to continue in the employ or service of the Company or any Subsidiary or interferes with or restricts in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of Participant at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and Participant.

15.11 Counterparts. The Grant Notice may be executed in one or more counterparts, including by way of any electronic signature, subject to Applicable Law, each of which will be deemed an original and all of which together will constitute one instrument.

15.12 Incentive Stock Options. If the Option is designated as an Incentive Stock Option:

(a) Participant acknowledges that to the extent the aggregate fair market value of shares (determined as of the time the option with respect to the shares is granted) with respect to which stock options intended to qualify as "incentive stock options" under Section 422 of the Code, including the Option, are exercisable for the first time by Participant during any calendar year exceeds \$100,000 or if for any other reason such stock options do not qualify or cease to qualify for treatment as "incentive stock options" under Section 422 of the Code, such stock options (including the Option) will be treated as non-qualified stock options. Participant further acknowledges that the rule set forth in the preceding

sentence will be applied by taking the Option and other stock options into account in the order in which they were granted, as determined under Section 422(d) of the Code. Participant acknowledges that amendments or modifications made to the Option pursuant to the Plan that would cause the Option to become a Non-Qualified Stock Option will not materially or adversely affect Participant's rights under the Option, and that any such amendment or modification shall not require Participant's consent. Participant also acknowledges that if the Option is exercised more than three (3) months after Participant's Termination of Service as an Employee, other than by reason of death or disability, the Option will be taxed as a Non-Qualified Stock Option.

(b) Participant will give prompt written notice to the Company of any disposition or other transfer of any Shares acquired under this Agreement if such disposition or other transfer is made (a) within two (2) years from the Grant Date or (b) within one (1) year after the transfer of such Shares to Participant. Such notice will specify the date of such disposition or other transfer and the amount realized, in cash, other property, assumption of indebtedness or other consideration, by Participant in such disposition or other transfer.

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BANDWIDTH INC.
2017 INCENTIVE AWARD PLAN
RESTRICTED STOCK UNIT GRANT NOTICE

Capitalized terms not specifically defined in this Restricted Stock Unit Grant Notice (the “**Grant Notice**”) have the meanings given to them in the 2017 Incentive Award Plan (as amended from time to time, the “**Plan**”) of Bandwidth Inc. (the “**Company**”).

The Company has granted to the participant listed below (“**Participant**”) the Restricted Stock Units described in this Grant Notice (the “**RSUs**”), subject to the terms and conditions of the Plan and the Restricted Stock Unit Agreement attached as **Exhibit A** (the “**Agreement**”), both of which are incorporated into this Grant Notice by reference.

Participant:

Grant Date:

Number of RSUs:

Vesting Commencement Date:

Vesting Schedule: [To be specified in individual award agreements]

By Participant’s signature below, Participant agrees to be bound by the terms of this Grant Notice, the Plan and the Agreement. Participant has reviewed the Plan, this Grant Notice and the Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, this Grant Notice and the Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice or the Agreement.

BANDWIDTH INC.

PARTICIPANT

By: _____

Name: _____

[Participant Name]

Title: _____

RESTRICTED STOCK UNIT AGREEMENT

Capitalized terms not specifically defined in this Agreement have the meanings specified in the Grant Notice or, if not defined in the Grant Notice, in the Plan.

**ARTICLE XVI.
GENERAL****16.1 Award of RSUs and Dividend Equivalents.**

(a) The Company has granted the RSUs to Participant effective as of the grant date set forth in the Grant Notice (the “**Grant Date**”). Each RSU represents the right to receive one Share or, at the option of the Company, an amount of cash, in either case, as set forth in this Agreement. Participant will have no right to the distribution of any Shares or payment of any cash until the time (if ever) the RSUs have vested.

(b) The Company hereby grants to Participant, with respect to each RSU, a Dividend Equivalent for ordinary cash dividends paid to substantially all holders of outstanding Shares with a record date after the Grant Date and prior to the date the applicable RSU is settled, forfeited or otherwise expires. Each Dividend Equivalent entitles Participant to receive the equivalent value of any such ordinary cash dividends paid on a single Share. The Company will establish a separate Dividend Equivalent bookkeeping account (a “**Dividend Equivalent Account**”) for each Dividend Equivalent and credit the Dividend Equivalent Account (without interest) on the applicable dividend payment date with the amount of any such cash paid.

16.2 Incorporation of Terms of Plan. The RSUs are subject to the terms and conditions set forth in this Agreement and the Plan, which is incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan will control.

16.3 Unsecured Promise. The RSUs and Dividend Equivalents will at all times prior to settlement represent an unsecured Company obligation payable only from the Company’s general assets.

**ARTICLE XVII.
VESTING; FORFEITURE AND SETTLEMENT**

17.1 Vesting; Forfeiture. The RSUs will vest according to the vesting schedule in the Grant Notice except that any fraction of an RSU that would otherwise be vested will be accumulated and will vest only when a whole RSU has accumulated. In the event of Participant’s Termination of Service for any reason, all unvested RSUs will immediately and automatically be cancelled and forfeited, except as otherwise determined by the Administrator or provided in a binding written agreement between Participant and the Company. Dividend Equivalents (including any Dividend Equivalent Account balance) will vest or be forfeited, as applicable, upon the vesting or forfeiture of the RSU with respect to which the Dividend Equivalent (including the Dividend Equivalent Account) relates.

17.2 Settlement.

(a) RSUs and Dividend Equivalents (including any Dividend Equivalent Account balance) will be paid in Shares or cash at the Company’s option as soon as administratively practicable after the vesting of the applicable RSU, but in no event more than sixty (60) days after the RSU’s vesting date. Notwithstanding the foregoing, the Company may delay any payment under this Agreement that the Company reasonably determines would violate Applicable Law until the earliest date the Company reasonably determines the making of the payment will not cause such a violation (in accordance with Treasury Regulation Section 1.409A-2(b)(7)(ii)), provided the Company reasonably believes the delay will not result in the imposition of excise taxes under Section 409A.

(b) If an RSU is paid in cash, the amount of cash paid with respect to the RSU will equal the Fair Market Value of a Share on the day immediately preceding the payment date. If a Dividend Equivalent is paid in Shares, the number of Shares paid with respect to the Dividend Equivalent will equal the quotient, rounded down to the nearest whole Share, of the Dividend Equivalent Account balance divided by the Fair Market Value of a Share on the day immediately preceding the payment date.

**ARTICLE XVIII.
TAXATION AND TAX WITHHOLDING**

18.1 Representation. Participant represents to the Company that Participant has reviewed with Participant's own tax advisors the tax consequences of this Award and the transactions contemplated by the Grant Notice and this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents.

18.2 Tax Withholding.

(a) The Company has the right and option, but not the obligation, to treat Participant's failure to provide timely payment in accordance with the Plan of any withholding tax arising in connection with the RSUs or Dividend Equivalents as Participant's election to satisfy all or any portion of the withholding tax by requesting the Company retain Shares otherwise issuable under the Award.

(b) Participant acknowledges that Participant is ultimately liable and responsible for all taxes owed in connection with the RSUs and the Dividend Equivalents, regardless of any action the Company or any Subsidiary takes with respect to any tax withholding obligations that arise in connection with the RSUs or Dividend Equivalents. Neither the Company nor any Subsidiary makes any representation or undertaking regarding the treatment of any tax withholding in connection with the awarding, vesting or payment of the RSUs or the Dividend Equivalents or the subsequent sale of Shares. The Company and the Subsidiaries do not commit and are under no obligation to structure the RSUs or Dividend Equivalents to reduce or eliminate Participant's tax liability.

**ARTICLE XIX.
OTHER PROVISIONS**

19.1 Adjustments. Participant acknowledges that the RSUs, the Shares subject to the RSUs and the Dividend Equivalents are subject to adjustment, modification and termination in certain events as provided in this Agreement and the Plan.

19.2 Notices. Any notice to be given under the terms of this Agreement to the Company must be in writing and addressed to the Company in care of the Company's General Counsel at the Company's principal office or the General Counsel's then-current email address or facsimile number. Any notice to be given under the terms of this Agreement to Participant must be in writing and addressed to Participant at Participant's last known mailing address, email address or facsimile number in the Company's personnel files. By a notice given pursuant to this Section, either party may designate a different address for notices to be given to that party. Any notice will be deemed duly given when actually received, when sent by email, when sent by certified mail (return receipt requested) and deposited with postage prepaid in a post office or branch post office regularly maintained by the United States Postal Service, when delivered by a nationally recognized express shipping company or upon receipt of a facsimile transmission confirmation.

19.3 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

19.4 Conformity to Securities Laws. Participant acknowledges that the Plan, the Grant Notice and this Agreement are intended to conform to the extent necessary with all Applicable Laws and, to the extent Applicable Laws permit, will be deemed amended as necessary to conform to Applicable Laws.

19.5 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement will inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth in the Plan, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

19.6 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the Grant Notice, this Agreement, the RSUs and the Dividend Equivalents will be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3) that are requirements for the application of such exemptive rule. To the extent Applicable Laws permit, this Agreement will be deemed amended as necessary to conform to such applicable exemptive rule.

19.7 Entire Agreement. The Plan, the Grant Notice and this Agreement (including any exhibit hereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

19.8 Agreement Severable. In the event that any provision of the Grant Notice or this Agreement is held illegal or invalid, the provision will be severable from, and the illegality or invalidity of the provision will not be construed to have any effect on, the remaining provisions of the Grant Notice or this Agreement.

19.9 Limitation on Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and may not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant will have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the RSUs and Dividend Equivalents, and rights no greater than the right to receive cash or the Shares as a general unsecured creditor with respect to the RSUs and Dividend Equivalents, as and when settled pursuant to the terms of this Agreement.

19.10 Not a Contract of Employment. Nothing in the Plan, the Grant Notice or this Agreement confers upon Participant any right to continue in the employ or service of the Company or any Subsidiary or interferes with or restricts in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of Participant at any time for any reason whatsoever, with or without Cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and Participant.

19.11 Counterparts. The Grant Notice may be executed in one or more counterparts, including by way of any electronic signature, subject to Applicable Law, each of which will be deemed an original and all of which together will constitute one instrument.

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**BANDWIDTH INC.
2017 INCENTIVE AWARD PLAN
RESTRICTED STOCK GRANT NOTICE**

Capitalized terms not specifically defined in this Restricted Stock Grant Notice (the “**Grant Notice**”) have the meanings given to them in the 2017 Incentive Award Plan (as amended from time to time, the “**Plan**”) of Bandwidth Inc. (the “**Company**”).

The Company has granted to the participant listed below (“**Participant**”) the shares of Restricted Stock described in this Grant Notice (the “**Restricted Shares**”), subject to the terms and conditions of the Plan and the Restricted Stock Agreement attached as **Exhibit A** (the “**Agreement**”), both of which are incorporated into this Grant Notice by reference.

Participant:

Grant Date:

Number of Restricted Shares:

Vesting Commencement Date:

Vesting Schedule: [To be specified in individual award agreements]

By Participant’s signature below, Participant agrees to be bound by the terms of this Grant Notice, the Plan and the Agreement. Participant has reviewed the Plan, this Grant Notice and the Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Grant Notice and fully understands all provisions of the Plan, this Grant Notice and the Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan, this Grant Notice or the Agreement.

BANDWIDTH INC.

PARTICIPANT

By: _____

Name: _____

[Participant Name]

Title: _____

RESTRICTED STOCK AGREEMENT

Capitalized terms not specifically defined in this Agreement have the meanings specified in the Grant Notice or, if not defined in the Grant Notice, in the Plan.

**ARTICLE XX.
GENERAL**

20.1 Issuance of Restricted Shares. The Company will issue the Restricted Shares to the Participant effective as of the grant date set forth in the Grant Notice and will cause (a) a stock certificate or certificates representing the Restricted Shares to be registered in Participant's name or (b) the Restricted Shares to be held in book-entry form. If a stock certificate is issued, the certificate will be delivered to, and held in accordance with this Agreement by, the Company or its authorized representatives and will bear the restrictive legends required by this Agreement. If the Restricted Shares are held in book-entry form, then the book-entry will indicate that the Restricted Shares are subject to the restrictions of this Agreement.

20.2 Incorporation of Terms of Plan. The Restricted Shares are subject to the terms and conditions set forth in this Agreement and the Plan, which is incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan will control.

**ARTICLE XXI.
VESTING, FORFEITURE AND ESCROW**

21.1 Vesting. The Restricted Shares will become vested Shares (the "**Vested Shares**") according to the vesting schedule in the Grant Notice except that any fraction of a Share that would otherwise become a Vested Share will be accumulated and will become a Vested Share only when a whole Vested Share has accumulated.

21.2 Forfeiture. In the event of Participant's Termination of Service for any reason, Participant will immediately and automatically forfeit to the Company any Shares that are not Vested Shares (the "**Unvested Shares**") at the time of Participant's Termination of Service, except as otherwise determined by the Administrator or provided in a binding written agreement between Participant and the Company. Upon forfeiture of Unvested Shares, the Company will become the legal and beneficial owner of the Unvested Shares and all related interests and Participant will have no further rights with respect to the Unvested Shares.

21.3 Escrow.

(a) Unvested Shares will be held by the Company or its authorized representatives until (i) they are forfeited, (ii) they become Vested Shares or (iii) this Agreement is no longer in effect. By accepting this Award, Participant appoints the Company and its authorized representatives as Participant's attorney(s)-in-fact to take all actions necessary to effect any transfer of forfeited Unvested Shares (and Retained Distributions (as defined below), if any, paid on such forfeited Unvested Shares) to the Company as may be required pursuant to the Plan or this Agreement and to execute such representations or other documents or assurances as the Company or such representatives deem necessary or advisable in connection with any such transfer. The Company, or its authorized representative, will not be liable for any good faith act or omission with respect to the holding in escrow or transfer of the Restricted Shares.

(b) All cash dividends and other distributions made or declared with respect to Unvested Shares (“**Retained Distributions**”) will be held by the Company until the time (if ever) when the Unvested Shares to which such Retained Distributions relate become Vested Shares. The Company will establish a separate Retained Distribution bookkeeping account (“**Retained Distribution Account**”) for each Unvested Share with respect to which Retained Distributions have been made or declared in cash and credit the Retained Distribution Account (without interest) on the date of payment with the amount of such cash made or declared with respect to the Unvested Share. Retained Distributions (including any Retained Distribution Account balance) will immediately and automatically be forfeited upon forfeiture of the Unvested Share with respect to which the Retained Distributions were paid or declared.

(c) As soon as reasonably practicable following the date on which an Unvested Share becomes a Vested Share, the Company will (i) cause the certificate (or a new certificate without the legend required by this Agreement, if Participant so requests) representing the Share to be delivered to Participant or, if the Share is held in book-entry form, cause the notations indicating the Share is subject to the restrictions of this Agreement to be removed and (ii) pay to Participant the Retained Distributions relating to the Share.

21.4 Rights as Stockholder. Except as otherwise provided in this Agreement or the Plan, upon issuance of the Restricted Shares by the Company, Participant will have all the rights of a stockholder with respect to the Restricted Shares, including the right to vote the Restricted Shares and to receive dividends or other distributions paid or made with respect to the Restricted Shares.

ARTICLE XXII. TAXATION AND TAX WITHHOLDING

22.1 Representation. Participant represents to the Company that Participant has reviewed with Participant’s own tax advisors the tax consequences of the Restricted Shares and the transactions contemplated by the Grant Notice and this Agreement. Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents.

22.2 Section 83(b) Election. If Participant makes an election under Section 83(b) of the Code with respect to the Restricted Shares, Participant will deliver a copy of the election to the Company promptly after filing the election with the Internal Revenue Service.

22.3 Tax Withholding.

(a) The Company has the right and option, but not the obligation, to treat Participant’s failure to provide timely payment in accordance with the Plan of any withholding tax arising in connection with the Restricted Shares as Participant’s election to satisfy all or any portion of the withholding tax by requesting the Company retain Shares otherwise deliverable under the Award.

(b) Participant acknowledges that Participant is ultimately liable and responsible for all taxes owed in connection with the Restricted Shares, regardless of any action the Company or any Subsidiary takes with respect to any tax withholding obligations that arise in connection with the Restricted Shares. Neither the Company nor any Subsidiary makes any representation or undertaking regarding the treatment of any tax withholding in connection with the awarding, vesting or payment of the Restricted Shares or the subsequent sale of the Restricted Shares. The Company and the Subsidiaries do not commit and are under no obligation to structure this Award to reduce or eliminate Participant’s tax liability.

**ARTICLE XXIII.
RESTRICTIVE LEGENDS AND TRANSFERABILITY**

23.1 Legends. Any certificate representing a Restricted Share will bear the following legend until the Restricted Share becomes a Vested Share:

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO FORFEITURE IN FAVOR OF THE COMPANY AND MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF A RESTRICTED STOCK AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE GENERAL COUNSEL OF THE COMPANY.

23.2 Transferability. The Restricted Shares and any Retained Distributions are subject to the restrictions on transfer in the Plan and may not be sold, assigned or transferred in any manner unless and until they become Vested Shares. Any attempted transfer or disposition of Unvested Shares or related Retained Distributions prior to the time the Unvested Shares become Vested Shares will be null and void. The Company will not be required to (a) transfer on its books any Restricted Share that has been sold or otherwise transferred in violation of this Agreement or (b) treat as owner of such Restricted Share or accord the right to vote or pay dividends to any purchaser or other transferee to whom such Restricted Share has been so transferred. The Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, or make appropriate notations to the same effect in its records.

**ARTICLE XXIV.
OTHER PROVISIONS**

24.1 Adjustments. Participant acknowledges that the Restricted Shares are subject to adjustment, modification and termination in certain events as provided in this Agreement and the Plan.

24.2 Notices. Any notice to be given under the terms of this Agreement to the Company must be in writing and addressed to the Company in care of the Company’s General Counsel at the Company’s principal office or the General Counsel’s then-current email address or facsimile number. Any notice to be given under the terms of this Agreement to Participant must be in writing and addressed to Participant at Participant’s last known mailing address, email address or facsimile number in the Company’s personnel files. By a notice given pursuant to this Section, either party may designate a different address for notices to be given to that party. Any notice will be deemed duly given when actually received, when sent by email, when sent by certified mail (return receipt requested) and deposited with postage prepaid in a post office or branch post office regularly maintained by the United States Postal Service, when delivered by a nationally recognized express shipping company or upon receipt of a facsimile transmission confirmation.

24.3 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

24.4 Conformity to Securities Laws. Participant acknowledges that the Plan, the Grant Notice and this Agreement are intended to conform to the extent necessary with all Applicable Laws and, to the extent Applicable Laws permit, will be deemed amended as necessary to conform to Applicable Laws.

24.5 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement will inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth in this Agreement or the Plan, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

24.6 Limitations Applicable to Section 16 Persons. Notwithstanding any other provision of the Plan or this Agreement, if Participant is subject to Section 16 of the Exchange Act, the Plan, the Grant Notice, this Agreement and the Restricted Shares will be subject to any additional limitations set forth in any applicable exemptive rule under Section 16 of the Exchange Act (including any amendment to Rule 16b-3) that are requirements for the application of such exemptive rule. To the extent Applicable Laws permit, this Agreement will be deemed amended as necessary to conform to such applicable exemptive rule.

24.7 Entire Agreement. The Plan, the Grant Notice and this Agreement (including any exhibit hereto) constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof.

24.8 Agreement Severable. In the event that any provision of the Grant Notice or this Agreement is held illegal or invalid, the provision will be severable from, and the illegality or invalidity of the provision will not be construed to have any effect on, the remaining provisions of the Grant Notice or this Agreement.

24.9 Limitation on Participant's Rights. Participation in the Plan confers no rights or interests other than as herein provided. This Agreement creates only a contractual obligation on the part of the Company as to amounts payable and may not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant will have only the rights of a general unsecured creditor of the Company with respect to amounts credited and benefits payable, if any, with respect to the Award.

24.10 Not a Contract of Employment. Nothing in the Plan, the Grant Notice or this Agreement confers upon Participant any right to continue in the employ or service of the Company or any Subsidiary or interferes with or restricts in any way the rights of the Company and its Subsidiaries, which rights are hereby expressly reserved, to discharge or terminate the services of Participant at any time for any reason whatsoever, with or without cause, except to the extent expressly provided otherwise in a written agreement between the Company or a Subsidiary and Participant.

24.11 Counterparts. The Grant Notice may be executed in one or more counterparts, including by way of any electronic signature, subject to Applicable Law, each of which will be deemed an original and all of which together will constitute one instrument.

* * * * *

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated August 16, 2017 (except for the second paragraph of Note 1, as to which the date is September 21, 2017, and Note 16 as to which the date is October 23, 2017), in the Registration Statement (Form S-1 No. 333-220945) and the related Prospectus of Bandwidth Inc. for the registration of its common stock.

/s/ Ernst & Young LLP

Raleigh, North Carolina
October 27, 2017