

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

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**FORM 10-K**

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(Mark One)

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

For the fiscal year ended December 31, 2016  
OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission File Number: 000-32743

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**DASAN ZHONG SOLUTIONS, INC.**

(Exact name of registrant as specified in its charter)

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Delaware  
(State or other jurisdiction of  
incorporation or organization)

22-3509099  
(I.R.S. Employer  
Identification No.)

7195 Oakport Street  
Oakland, California 94621  
(Address of principal executive office)

Registrant's telephone number, including area code: (510) 777-7000  
Securities registered pursuant to Section 12(b) of the Act:

Common Stock, \$0.001 Par Value  
(Title of class)

The Nasdaq Stock Market LLC  
(Name of each exchange on which registered)

Securities registered pursuant to Section 12(g) of the Act: None

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

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

As of September 20, 2017, there were 16,385,455 shares outstanding of the registrant's common stock, \$0.001 par value. As of June 30, 2016 (the last business day of the registrant's most recently completed second fiscal quarter), the aggregate market value of common stock held by non-affiliates of the registrant was approximately \$34,173,915.

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### ***Forward-looking Statements***

This report, including “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” contains forward-looking statements regarding future events and our future results that are subject to the safe harbors created under the Securities Act of 1933 and the Securities Exchange Act of 1934, or the Exchange Act. These statements are based on current expectations, estimates, forecasts, and projections about the industries in which we operate and the beliefs and assumptions of our management. We use words such as “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “goal,” “intend,” “may,” “plan,” “project,” “seek,” “should,” “target,” “will,” “would,” variations of such words, and similar expressions to identify forward-looking statements. In addition, statements that refer to projections of earnings, revenue, costs or other financial items; anticipated growth and trends in our business or key markets; cost synergies, growth opportunities and other financial and operating benefits of the Merger (as defined below); future growth and revenues from our products; our ability to refinance or repay our existing indebtedness prior to the applicable maturity date; future economic conditions and performance; anticipated performance of products or services; plans, objectives and strategies for future operations; and other characterizations of future events or circumstances, are forward-looking statements. Readers are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions that are difficult to predict, including those identified under the heading “Risk Factors” in Item 1A, elsewhere in this report and our other filings with the Securities and Exchange Commission (the SEC). Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. Factors that might cause such a difference include, but are not limited to, our ability to realize the anticipated cost savings, synergies and other benefits of the Merger and any integration risks relating to the Merger, the ability to generate sufficient revenue to achieve or sustain profitability, the ability to raise additional capital to fund existing and future operations or to refinance or repay our existing indebtedness, defects or other performance problems in our products, any economic slowdown in the telecommunications industry that restricts the ability of our customers to purchase our products, commercial acceptance of our products, intense competition in the telecommunications equipment market from large equipment companies as well as private companies with products that address the same networks needs as our products, higher than anticipated expenses that we may incur, any failure to comply with the periodic filing and other requirements of The Nasdaq Stock Market, or Nasdaq, for continued listing, material weaknesses or other deficiencies in our internal control over financial reporting, the initiation of any civil litigation, regulatory proceedings, government enforcement actions or other adverse effects relating to the Audit Committee investigation or errors in the consolidated financial statements of Legacy Zhone (as defined below) and other factors identified elsewhere in this report. We undertake no obligation to revise or update any forward-looking statements for any reason.

## **PART I**

### **ITEM 1. BUSINESS**

#### **Corporate Information**

DASAN Zhone Solutions, Inc. (DZS, formerly known as Zhone Technologies, Inc.) was incorporated under the laws of the state of Delaware in June 1999. On September 9, 2016, we acquired Dasan Network Solutions, Inc. (DNS) through the merger of a wholly owned subsidiary of Zhone Technologies, Inc. with and into DNS, with DNS surviving as our wholly owned subsidiary (the Merger). At the effective time of the Merger, all issued and outstanding shares of capital stock of DNS held by its sole shareholder, DASAN Networks, Inc. (DNI), were canceled and converted into the right to receive shares of our common stock in an amount equal to 58% of the issued and outstanding shares of our common stock immediately following the Merger. In connection with the Merger, Zhone Technologies, Inc. changed its name to DASAN Zhone Solutions, Inc. Our common stock continues to be traded on the Nasdaq Capital Market, and our ticker symbol was changed from "ZHNE" to "DZSI" effective September 12, 2016. The mailing address of our worldwide headquarters is 7195 Oakport Street, Oakland, California 94621, and our telephone number at that location is (510) 777-7000.

As used in this report, unless the context suggests otherwise, the terms "we," "us" or "our" refer to (i) DNS and its consolidated subsidiaries for periods through September 8, 2016 and (ii) DZS and its consolidated subsidiaries for periods on or after September 9, 2016, the effective date of the Merger. For periods through September 8, 2016, Zhone Technologies, Inc. is referred to as "Legacy Zhone."

#### **Company Overview**

We are a global provider of network access solutions and communications equipment for service provider and enterprise networks. We research, develop, test, sell, manufacture and support communications equipment in five major areas: broadband access, Ethernet switching, mobile backhaul, passive optical LAN (POLAN) and software defined networks (SDN).

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We research, develop and test products and technologies for our customers to purchase and deploy in their networks. We have development and test capabilities in five countries around the world. We are a global company with over 1,000 customers in more than 50 countries worldwide. We use a combination of both in-house and outsourced manufacturing of our products.

### ***Broadband Access***

Our broadband access products offer a variety of options for carriers and service providers to connect residential and business customers. Our solutions allow carriers and service providers to either use high-speed fiber or leverage their existing deployed copper networks to offer broadband services to customer premises. Once our broadband access products are deployed, the service provider can offer voice, high-definition and ultra-high-definition video, high-speed internet access and business class services to their customers. We develop our broadband access products for all aspects of carrier and service provider access networks: customer premise equipment (such as digital subscriber line (DSL) modems), Ethernet access demarcation devices, Gigabit passive optical network (GPON) and Gigabit Ethernet passive optical network (GEAPON) optical network terminals (ONTs). We also develop central office products, such as broadband loop carriers for DSL and voice-grade telephone service (POTS), high-speed digital subscriber line access multiplexers (DSLAMs) with G.fast and very-high-bit-rate DSL (VDSL) capabilities, optical line terminals (OLTs) for passive optical distribution networks like GPON and GEAPON as well as point-to-point Ethernet service for 1 Gigabit to 10 Gigabit access. Both DNS and Legacy Zhone were market leaders in the broadband access market prior to the Merger, and the combination of DNS and Legacy Zhone is expected to enhance our leadership position for both carrier and enterprise solutions in this market following the Merger.

### ***Ethernet Switching***

Our Ethernet switching products provide a high-performance and manageable solution that bridges the gap from carrier access technologies to the core network. Over the past ten years carriers have migrated access infrastructure to Ethernet from time-division multiplexing and asynchronous transfer mode systems. Our products can also be deployed in data centers, blurring the line between central office and data center. Our products support pure Ethernet switching as well as layer 3 IP and MPLS capabilities, and are currently being developed for interfacing with SDNs. Legacy Zhone did not offer comparable Ethernet switching products prior to the Merger, and therefore the Ethernet switching market is expected to provide an opportunity for growth for the combined company following the Merger.

### ***Mobile Backhaul***

Our mobile backhaul products provide a robust, manageable and scalable solution for mobile operators that enable them to upgrade their mobile backhaul systems and migrate from 3G networks to LTE and beyond. We provide our mobile backhaul products to mobile operators or carriers who provide the transport for mobile operators. Our mobile backhaul products may be collocated at the radio access node (RAN) base station (BS) and can aggregate multiple RAN BS in to a single backhaul for delivery of mobile traffic to the RAN network controller. We provide standard Ethernet/IP or multiprotocol label switching (MPLS) interfaces and interoperate with other vendors in these networks. With mobile backhaul networks providing carriers with significant revenue growth in recent years, mobile backhaul has become one of the most important parts of their networks. Legacy Zhone did not offer comparable mobile backhaul products prior to the Merger, and therefore the mobile backhaul market is expected to provide an opportunity for growth for the combined company following the Merger.

### ***Passive Optical LAN***

Our FiberLAN portfolio of POLAN products are designed for enterprise, campus, hospitality, and entertainment arena usage. Our FiberLAN portfolio includes our high-performance, high-bandwidth GPON OLTs connected to the industry's most diverse ONT product line, which include units with integrated Power over Ethernet (PoE) to power a wide range of devices such as our full range of WIFI access points (APs) and scalable WIFI AP controller. Our environmentally friendly FiberLAN POLAN solutions are one of the most cost effective LAN technologies that can be deployed, allowing network managers to deploy a future proof, low-maintenance, manageable solution that requires less space, air conditioning, copper and electricity than other alternatives. Our FiberLAN portfolio relates primarily to Legacy Zhone products, while our WIFI access points and controllers consist primarily of DNS products. We expect the combination of Legacy Zhone and DNS products in this market to enhance the functionality of our product offerings and provide an opportunity for growth for the combined company following the Merger.

### ***Software Defined Networks***

Our SDN and network function virtualization (NFV) tools and building blocks to allow service providers to migrate their networks' full complement of legacy control plane and data plane devices to a centralized intelligent controller that can reconfigure the services of the hundreds of network elements in real time for more controlled and efficient provision of bandwidth and latency across the network. This move to SDN and NFV provides better service for end customers and a more

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efficient and cost-effective use of hardware resources for service providers. We leverage our broadband access, mobile backhaul and Ethernet switching expertise to extract and virtualize many of the traditional legacy control and data plane functions to allow them to be run from the cloud. The latest evolution of our hardware-based solution was designed to support SDN and NFV. Our SDN and NFV tools reflect the combined experience and technologies of DNS and Legacy Zhone.

### **Industry Background**

We believe growth in our business in the coming years will be driven by continued growth in worldwide demand for network access solutions and communications equipment that enable or support access to high-speed broadband services. The communications industry continues to experience rapid expansion with the internet and proliferation of bandwidth-intensive applications and services leading to increasing demands for high-bandwidth communications networks. The broad adoption of new technologies such as smartphones, digital video cameras and high definition and ultra high definition televisions allow music, pictures, user-generated content (as found on the many video-sharing sites) and high definition video to be a growing part of consumers' regular exchange of information. In recent years, the growth of social communications and social networking has continued to place demands on existing access infrastructure and new consumer demands are challenging even the newest and most advanced infrastructures. All of these new technologies share a common dependency on high-bandwidth communication networks and sophisticated traffic management tools. However, network service providers have struggled to meet the increased demand for high-speed broadband access due to the cost of network infrastructure upgrades. As bandwidth demands continue to increase, carriers need to continue to upgrade their network infrastructure to support such demand. The infrastructure upgrade cycle typically has the effect of moving bandwidth bottlenecks from one part of the network to another (such as a carrier's access network, core network or datacenters), depending on technology selection and cost.

It is widely believed that a fiber-optic connection that runs from customers' premises all the way to the carrier's datacenters is the best network architecture for a fixed network. This network architecture is called Fiber to the Premises (FTTP). However, FTTP is also typically the most expensive network solution, due to the associated build-out and equipment cost. Although many carriers have, to different degrees, adopted FTTP as their primary network architecture, many limit their use of FTTP to new greenfield builds and rely on hybrid fiber-copper topologies in their existing network in order to reduce cost. For example, popular and less costly alternatives to FTTP include Fiber to the Curb (FTTC) or Fiber to the Node (FTTN) network architecture. In these architectures, the carrier lays a fiber-optic cable to a street cabinet and then uses DSLAMs or Multiple Service Access Node (MSAN) to provide higher speed services to their customers over copper wire. Another trend in network access is the shift away from the legacy telephone switches (used in carrier networks from the 1980's to the early 2000's): many carriers that continue to provide services over copper wire are decommissioning their legacy telephone switches and moving services over to Voice over Internet Protocol (VoIP) platforms on an MSAN. Our broadband access products and solutions are designed to address these market trends by allowing carriers and service providers to either use fiber-optic networks or leverage their existing deployed copper networks to offer broadband services to customer premises.

With respect to mobile wireless networks, the popularity of mobile smartphones and increasing demand for mobile data has forced mobile network operators to upgrade their mobile access technologies from 3rd generation wireless (3G) to 4th generation wireless (4G or LTE) and to plan for 5th generation wireless technologies (5G). These technology upgrades are typically accompanied by network infrastructure upgrades, including upgrades to the carriers' access networks (referred to as mobile backhaul), core networks and datacenters. Our mobile backhaul products provide a robust, manageable and scalable solution for mobile network operators that enable them to upgrade their mobile backhaul systems and migrate from 3G networks to LTE and beyond.

Another growing industry trend is the desire of carriers and service providers to simplify network operation and reduce costs. Increasingly, we see network operators seeking to reduce the number of active components in their networks and to centralize network data and control in datacenters, both of which require network redesigns and upgrades. Our FiberLAN portfolio of POLAN products, as well as our Ethernet switching products and SDN and NFV tools and building blocks, are designed to address these market trends, with POLAN emerging as a popular customer choice for network upgrades.

### **The DZS Strategy**

Our business strategy is to be a leading global provider of network access solutions and communications equipment. The principal elements of our strategy include:

- *Leverage Growth Opportunities from Merger.* We believe the expanded geographic reach of the combined company and the enhanced functionality and range of our product offerings following the Merger represent attractive opportunities for growth in our business. Prior to the Merger, DNS provided communications equipment primarily in the Asia-Pacific region with a particular focus on Korea, Japan and Vietnam, and Legacy Zhone provided communications equipment primarily in the Americas and EMEA region. DNS and Legacy Zhone had complementary product portfolios prior to the Merger, with both DNS and Legacy Zhone offering broadband access solutions and

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related products. We expect the combination of DNS and Legacy Zhone products will enhance the functionality and range of our product offerings and create increased sales opportunities worldwide.

- *Drive Cost Efficiencies through Integration of DNS and Legacy Zhone Operations.* We intend to continue to drive cost efficiencies in our business through continuing efforts to integrate the DNS and Legacy Zhone global operations, with a view to creating a single efficient global engineering and support organization to support all customers of the combined company worldwide. We also expect to drive further cost efficiencies through product cost reductions and manufacturing economies of scale resulting from the Merger.
- *Maintain Focus on Technology Leadership.* We believe that our future success is built upon our investment in the development of advanced communications technologies. We intend to continue to focus on research and development to maintain our leadership position in network access solutions and communications equipment.

### **Customers**

For our core business, we sell our products and services to carriers and service providers that offer voice, data and video services to businesses, governments, utilities and residential consumers. Our global customer base includes regional, national and international carriers and service providers. To date, our products have been deployed by over 1,000 carriers and service providers worldwide.

For our FiberLAN business, we sell our POLAN solutions directly and through system integrators and distributors to hospitality, education, stadiums, manufacturing and business enterprises as well as to the government and military. Our global FiberLAN customer base includes hotels, universities, sports arenas, military bases, government institutions, manufacturing facilities and Fortune 500 businesses.

For the year ended December 31, 2016, three customers, SK Broadband, Inc., DNI and LG Uplus Corp. represented 16%, 14% and 10% of net revenue, respectively. For the year ended December 31, 2015, four customers, KT Corporation, LG Uplus Corp., DNI (a related-party) and SK Broadband, Inc., represented 26%, 21%, 17% and 10% of net revenue, respectively. For the year ended December 31, 2014, four customers, KT Corporation, LG Uplus Corp., SK Broadband, Inc. and DNI (a related-party) represented 17%, 14%, 13% and 12% of net revenue, respectively. No other customers accounted for 10% or more of net revenue during these periods.

### **Research and Development**

The industry in which we compete is subject to rapid technological developments, evolving industry standards, changes in customer requirements, and continuing developments in communications service offerings. Our continuing ability to adapt to these changes, and to develop new and enhanced products, is a significant factor in maintaining or improving our competitive position and our prospects for growth. Therefore, we continue to make significant investments in product development.

We have research and product development facilities at our headquarters in Oakland, California, as well as in research and product development centers located in Seminole, Florida and Alpharetta, Georgia, and in Korea, India, China and Vietnam. In all of these facilities we develop and test both our hardware and software. We have invested heavily in both automated and scale testing capabilities for our products to better emulate our customers' networks.

Our product development activities focus on products to support both existing and emerging technologies in the segments of the communications industry that we consider represent viable revenue opportunities. We are actively engaged in continuing to refine our solution architecture, introducing new products using the various solutions we support, and in creating additional interfaces and protocols for both domestic and international markets.

We continue our commitment to invest in leading edge technology research and development. Our research and product development expenses were \$25.4 million, \$21.3 million and \$22.8 million in 2016, 2015 and 2014, respectively. We plan to continue to support the development of new products and features, while seeking to carefully manage associated costs through expense controls.

### **Intellectual Property**

We seek to establish and maintain our proprietary rights in our technology and products through the use of patents, copyrights, trademarks and trade secret laws. We also seek to maintain our trade secrets and confidential information by nondisclosure policies and through the use of appropriate confidentiality agreements. We have obtained a number of patents and trademarks in the United States and in other countries. There can be no assurance, however, that these rights can be successfully enforced against competitive products in every jurisdiction. Although we believe the protection afforded by our patents, copyrights, trademarks and trade secrets has value, the rapidly changing technology in the networking industry and uncertainties in the

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legal process make our future success dependent primarily on the innovative skills, technological expertise, and management abilities of our employees rather than on the protection afforded by patent, copyright, trademark, and trade secret laws.

Many of our products are designed to include intellectual property licensed from third parties. While it may be necessary in the future to seek or renew licenses relating to various aspects of our products, we believe, based upon past experience and standard industry practice, that such licenses generally could be obtained on commercially reasonable terms. Nonetheless, there can be no assurance that the necessary licenses would be available on acceptable terms, if at all. Our inability to obtain certain licenses or other rights or to obtain such licenses or rights on favorable terms, or the need to engage in litigation regarding these matters, could have a material adverse effect on our business, operating results and financial condition.

The communications industry is characterized by rapidly changing technology, a large number of patents, and frequent claims and related litigation regarding patent and other intellectual property rights. We cannot assure you that our patents and other proprietary rights will not be challenged, invalidated or circumvented, that others will not assert intellectual property rights to technologies that are relevant to us, or that our rights will give us a competitive advantage. In addition, the laws of some foreign countries may not protect our proprietary rights to the same extent as the laws of the United States.

### **Sales and Marketing**

We have a sales presence in various domestic and foreign locations, and we sell our products and services both directly and indirectly through channel partners with support from our sales force. Channel partners include distributors, resellers, system integrators and service providers. These partners sell directly to end customers and often provide system installation, technical support, professional services and support services in addition to the network equipment sale. Our sales efforts are generally organized according to geographical regions:

- *U.S. Sales.* Our U.S. Sales organization establishes and maintains direct relationships with domestic customers, which include carriers and service providers, cable operators and utilities. In addition, this organization is responsible for managing our distribution and original equipment manufacturer, or OEM, partnerships.
- *International Sales.* Our International Sales organization targets foreign carriers and service providers and is staffed with individuals with specific experience dealing with carriers and service providers in their designated international territories.

Our marketing team works closely with our sales, research and product development organizations, and our customers by providing communications that keep the market current on our products and features. Marketing also identifies and sizes new target markets for our products, creates awareness of our company and products, generates contacts and leads within these targeted markets and performs outbound education and public relations.

### **Backlog**

Our backlog consists of purchase orders for products and services that we expect to ship or perform within the next year. Our backlog may fluctuate based on the timing of when purchase orders are received. At December 31, 2016, our backlog was \$28.8 million, as compared to \$2.6 million at December 31, 2015. We consider backlog to be an indicator, but not the sole predictor, of future sales because our customers may cancel or defer orders without penalty.

### **Competition**

We compete in communications equipment markets, providing products and services for the delivery of voice, data and video services. These markets are characterized by rapid change, converging technologies and a migration to solutions that offer superior advantages. These market factors represent both an opportunity and a competitive threat to us. We compete with numerous vendors in our core business, including Nokia, Calix, Adtran, Huawei, and ZTE, among others. In our FiberLAN business, our competitors include Tellabs and Cisco, among others. In addition, a number of companies have introduced products that address the same network needs that our products and solutions address, both domestically and abroad. The overall number of our competitors may increase, and the identity and composition of competitors may change. As we continue to expand our sales globally, we may see new competition in different geographic regions. Barriers to entry are relatively low, and new ventures to create products that do or could compete with our products are regularly formed. Many of our competitors have greater financial, technical, sales and marketing resources than we do.

The principal competitive factors in the markets in which we presently compete and may compete in the future include:

- product performance;
- interoperability with existing products;

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- scalability and upgradeability;
- conformance to standards;
- breadth of services;
- reliability;
- ease of installation and use;
- geographic footprints for products;
- ability to provide customer financing;
- pricing;
- technical support and customer service; and
- brand recognition.

While we believe that we compete successfully with respect to each of these factors, we expect to face intense competition in our markets. In addition, the inherent nature of communications networking requires interoperability. As such, we must cooperate and at the same time compete with many companies.

### **Manufacturing**

We manufacture our products using a strategic combination of procurement from qualified suppliers, in-house manufacturing at our facility in Florida, and the use of original equipment manufacturers (OEMs) located in the Far East. We manufacture many of our more complex products at our manufacturing facility in Florida.

Our parts and components are procured from a variety of qualified suppliers in the U.S., the Far East, Mexico and other countries around the world per our approved supplier list and detailed engineering specifications. Some completed products are procured to our specifications and shipped directly to our customers. We also acquire completed products from certain suppliers and configure and ship from our facility. Some of these purchases are significant. We purchase both standard off-the-shelf parts and components, which are generally available from more than one supplier, and single-source parts and components. We have generally been able to obtain adequate supplies to meet customer demand in a timely manner from our current vendors, or, when necessary, from alternate vendors. We believe that alternate vendors can be identified if current vendors are unable to fulfill our needs, or design changes can be made to employ alternate parts.

We design, specify, and monitor all of the tests that are required to meet our quality standards. Our manufacturing and test engineers work closely with our design engineers to ensure manufacturability and testability of our products, and to ensure that manufacturing and testing processes evolve as our technologies evolve. Our manufacturing engineers specify, build, or procure our test stations, establish quality standards and protocols, and develop comprehensive test procedures and processes to assure the reliability and quality of our products. Products that are procured complete or partially complete are inspected, tested, or audited for quality control.

Our Quality Management System is compliant with ISO-9001:2008 and we are certified to ISO-9001:2008 by our external registrar, National Standards Authority of Ireland (NSAI). ISO-9001:2008 requires that our processes are documented, followed and continuously improved. Internal audits are conducted on a regular schedule by our quality assurance personnel, and external audits are conducted by our external registrar each year. Our quality system is based upon our model for quality assurance in production and service to ensure our products meet rigorous quality standards.

We believe that we have sufficient production capacity to meet current and future demand for our product offerings through a combination of existing and added capacity, additional employees, or the outsourcing of products or components.

### **Compliance with Regulatory and Industry Standards**

Our products must comply with a significant number of voice and data regulations and standards which vary by jurisdiction. Standards for new services continue to evolve, and we may need to modify our products or develop new versions to meet these standards. Standards setting and compliance verification in the U.S. are determined by the Federal Communications Commission, or FCC, Underwriters Laboratories, Quality Management Institute, Telcordia Technologies, Inc., and other communications companies. In international markets, our products must comply with standards issued by the European

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Telecommunications Standards Institute (ETSI) and other standards bodies, as implemented and enforced by the regulatory authorities in the applicable jurisdiction.

### **Environmental Matters**

Our operations and manufacturing processes are subject to federal, state, local and foreign environmental protection laws and regulations. These laws and regulations relate to the use, handling, storage, discharge and disposal of certain hazardous materials and wastes, the pre-treatment and discharge of process waste waters and the control of process air pollutants.

We believe that our operations and manufacturing processes currently comply in all material respects with applicable environmental protection laws and regulations. If we fail to comply with any present and future regulations, we could be subject to future liabilities, the suspension of production or a prohibition on the sale of our products. In addition, such regulations could require us to incur other significant expenses to comply with environmental regulations, including expenses associated with the redesign of any non-compliant product. From time to time new regulations are enacted, and it is difficult to anticipate how such regulations will be implemented and enforced. For example, in 2003 the European Union enacted the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive (RoHS) and the Waste Electrical and Electronic Equipment Directive (WEEE), for implementation in European Union member states. We are aware of similar legislation that is currently in force or is being considered in the United States, as well as other countries, such as Japan and China. Our failure to comply with any of such regulatory requirements or contractual obligations could result in our being liable for costs, fines, penalties and third-party claims, and could jeopardize our ability to conduct business in countries in the jurisdictions where these regulations apply.

### **Audit Committee Investigation**

On March 21, 2017, the Audit Committee of our Board of Directors concluded, in consultation with management and after informing our former independent registered public accounting firm, that Legacy Zhone's unaudited condensed consolidated financial statements contained in its Amendment No. 2 to Quarterly Report on Form 10-Q/A for the quarter ended June 30, 2016 should no longer be relied upon due to material errors associated with the sale and subsequent return of certain products sold in December 2014. In connection with such finding, the Audit Committee commenced an independent investigation to determine whether any financial statements of Legacy Zhone prior to the quarter ended June 30, 2016 contained material errors. As a result of this investigation, which concluded in late July 2017, the Audit Committee concluded, in consultation with management and after informing our former independent registered public accounting firm, that Legacy Zhone's unaudited condensed consolidated financial statements contained in its Quarterly Reports on Form 10-Q for the quarters ended March 31, 2015, June 30, 2015, September 30, 2015 and March 31, 2016 and Legacy Zhone's audited consolidated financial statements and assessments of internal control over financial reporting, including disclosure controls and procedures, for the years ended December 31, 2015 and 2014 and contained in its Annual Reports on Form 10-K for the years ended December 31, 2015 and 2014 should no longer be relied upon. The determination that there were errors in Legacy Zhone's financial statements in periods prior to the Merger will not impact the financial statements of DZS following the Merger given the treatment of DNS as accounting acquirer.

Matters relating to or arising from the Audit Committee investigation and the associated material weaknesses identified in our internal control over financial reporting, including adverse publicity, have caused us to incur significant legal, accounting and other professional fees and other costs, have exposed us to greater risks associated with other civil litigation, regulatory proceedings and government enforcement actions, have diverted resources and attention that would otherwise be directed toward our operations and implementation of our business strategy and may have impacted our ability to attract and retain customers, employees and vendors.

### **Employees**

As of December 31, 2016, we employed 622 individuals worldwide. We consider the relationships with our employees to be positive. Competition for technical personnel in our industry is intense. We believe that our future success depends in part on our continued ability to hire, assimilate and retain qualified personnel. To date, we believe that we have been successful in recruiting qualified employees, but there is no assurance that we will continue to be successful in the future.

### **Executive Officers**

Set forth below is information concerning our executive officers and their ages as of December 31, 2016. As part of the management transition in connection with the first anniversary of the Merger, on September 11, 2017, James Norrod and Kirk Misaka stepped down from their roles as Co-Chief Executive Officer and Chief Financial Officer, respectively, and Il Yung Kim was appointed President, Chief Executive Officer and Acting Chief Financial Officer.

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Mr. Norrod's employment with us terminated on September 11, 2017 and he also stepped down from his role as a member of the Board of Directors on that date. Mr. Misaka has agreed to remain in our employ as Corporate Treasurer and Secretary for a transitional period to assist with the transition of his responsibilities.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Il Yung Kim	60	Co-Chief Executive Officer
James Norrod	68	Co-Chief Executive Officer
Kirk Misaka	58	Chief Financial Officer, Corporate Treasurer and Secretary

*Il Yung Kim* joined DZS as Co-Chief Executive Officer and a director on September 9, 2016 in connection with the Merger. Prior to the Merger, Mr. Kim served as a consultant to DNI in connection with the Merger and, from September 2014 to August 2016, served as Chief Executive Officer of TukTak in Korea, an online startup company, which enables people with creative talents to collaborate and produce goods and services online. From December 2014 to August 2016, he also served as a strategic advisor for InMobi, a global mobile advertising platform provider. Previously, Mr. Kim held various positions with Korea Telecom, including as President and executive board member from 2013 to 2014, and as Chief Strategy Officer from 2010 to 2013. Mr. Kim commenced his career with British Telecom in 1982, where he held various senior positions including Vice President of Technology and Innovation and Programme Director and Head of Technology and Investment. Mr. Kim holds a B.S. (with Honors) in Electronic Engineering and an M.S. Degree in Microwave and Modern Optics from University College, University of London.

*James Norrod* became Legacy Zhone's President, Chief Executive Officer and a director in July 2014, and continued to serve as our Co-Chief Executive Officer and a director following the Merger, before stepping down in September 2017 as part of the management transition in connection with the first anniversary of the Merger. Prior to joining Legacy Zhone, from January 2013 to December 2013, Mr. Norrod served as Chief Executive Officer of BigBelly Solar, a provider of innovative solar powered solutions for the management of waste and recycling. From October 2010 to January 2013, Mr. Norrod served as President and Chief Executive Officer of Infinite Power Solutions, a clean technology company focused on the development and manufacturing of micro-energy storage devices. From April 2005 to January 2010, Mr. Norrod served as President and Chief Executive Officer of Segway Inc., a company focused on the development and manufacturing of electric personal transportation products and technologies. Prior to joining Segway, Mr. Norrod held various chief executive officer positions across the technology industry. Mr. Norrod started his career with IBM, where he managed the General Motors account for more than 10 years. Mr. Norrod holds a B.S. in Economics from Oakland University and an M.B.A. from the University of Detroit.

*Kirk Misaka* served as Legacy Zhone's Corporate Treasurer since November 2000 and Chief Financial Officer and Secretary since July 2003. Mr. Misaka continued to serve as our Chief Financial Officer, Corporate Treasurer and Secretary following the Merger until September 2017, and currently serves as our Corporate Treasurer and Secretary. Prior to joining Legacy Zhone, Mr. Misaka was a Certified Public Accountant with KPMG LLP from 1980 to 2000, becoming a partner in 1989. Mr. Misaka earned a B.S. and an M.S. in Accounting from the University of Utah, and an M.S. in Tax from Golden Gate University.

### **Web site and Available Information**

Our website address is [www.dasanzhone.com](http://www.dasanzhone.com). The information on our website does not constitute part of this report. Through a link on the "Financials" section of our website, we make available the following filings as soon as reasonably practicable after they are electronically filed with or furnished to the SEC: our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. All such filings are available free of charge.

## ITEM 1A. RISK FACTORS

Set forth below and elsewhere in this report and in other documents we file with the SEC are risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements contained in this report.

### **The report of our independent registered public accounting firm expresses substantial doubt about our ability to continue as a going concern.**

Our independent registered public accounting firm has indicated in its report on our consolidated financial statements for the year ended December 31, 2016 that conditions exist that raise substantial doubt about our ability to continue as a going concern due to the maturing of short-term debt obligations and our recurring losses from operations. A “going concern” opinion could materially impair our ability to finance our operations through the sale of equity, incurrence of debt, or other financing alternatives, and materially impair our ability to negotiate reasonable terms with our suppliers. Our ability to continue as a going concern” is dependent on many factors, including, among other things, our ability to comply with the covenants in our existing debt agreements, our ability to cure any defaults that occur under our debt agreements or to obtain waivers or forbearances with respect to any such defaults, and our ability to pay, retire, amend, replace or refinance our indebtedness as defaults occur or as interest and principal payments come due. Although the process of amending, replacing or refinancing our short-term debt obligations is ongoing and we are in active discussions with multiple parties, there is no guarantee that they will result in transactions that are sufficient to provide us with the required liquidity to remove the substantial doubt as to our ability to continue as a going concern. If we are unable to amend, replace, refinance our short-term debt obligations or raise the capital needed to meet liquidity needs and finance capital expenditures and working capital, we may experience material adverse impacts on our business, operating results and financial condition. Our financial statements do not include any adjustments that may be necessary in the event we are unable to continue as a going concern. If we become unable to continue as a going concern, we may have to liquidate our assets and the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statements. If we ceased operations, it is likely that all of our stockholders would lose their entire investment.

### **Our lack of liquid funds and other sources of financing may limit our ability to maintain our existing operations, grow our business and compete effectively.**

As of December 31, 2016, we had approximately \$17.9 million in cash and cash equivalents and \$ 24.4 million in aggregate principal amount of our total outstanding indebtedness, which comprised \$17.6 million in aggregate principal amount of outstanding borrowings under our short-term debt obligations and \$6.8 million in related party borrowings. Our cash and cash equivalents as of December 31, 2016 included \$9.8 million in cash balances held by our Korean subsidiary. Our current lack of liquidity could harm us by:

- increasing our vulnerability to adverse economic conditions in our industry or the economy in general;
- requiring substantial amounts of cash to be used for debt servicing, rather than other purposes, including operations;
- limiting our ability to plan for, or react to, changes in our business and industry; and
- influencing investor and customer perceptions about our financial stability and limiting our ability to obtain financing or acquire customers.

In order to meet our liquidity needs and finance our capital expenditures and working capital needs for our business, we may be required to sell assets, issue debt or equity securities, purchase credit insurance, or borrow on potentially unfavorable terms or reduce costs which could impact new product innovation. In addition, we may be required to reduce our operations in low margin regions, including reductions in headcount. We may be unable to sell assets, access additional indebtedness or undertake other actions to meet these needs. As a result, we may become unable to pay our ordinary expenses, including our debt service, on a timely basis. If additional capital is raised through the issuance of debt securities or other debt financing, the terms of such debt may include covenants, restrictions and financial ratios that may restrict our ability to operate our business. Likewise, any equity financing could result in additional dilution of our stockholders. Moreover, we may be required to include audited annual and unaudited interim historical financial statements of Legacy Zhone in any registration statement for the sale of shares of our common stock or other securities, which may make it more costly and time consuming for us to raise additional capital through a public offering of securities. If we are unable to sell assets, issue securities or access additional indebtedness to meet these needs on favorable terms, or at all, we may become unable to pay our ordinary expenses, including our debt service, on a timely basis and may be required to reduce the scope of our planned product development and sales and marketing efforts beyond the reductions we have previously taken. In addition, we may not be able to fund our business expansion, take

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advantage of future opportunities, or respond to competitive pressures or unanticipated capital requirements, any of which could have a material adverse effect on our business, financial condition and results of operations.

### **If we are unable to obtain additional capital to fund our existing and future operations, we may be required to reduce the scope of our planned product development, and marketing and sales efforts, which would harm our business, financial condition and results of operations.**

The development and marketing of new products, and the expansion of our direct sales operations and associated support personnel requires a significant commitment of resources. We may incur significant losses or expend significant amounts of capital if:

- the market for our products develops more slowly than anticipated;
- we fail to establish market share or generate revenue at anticipated levels;
- our capital expenditure forecasts change or prove inaccurate; or
- we fail to respond to unforeseen challenges or take advantage of unanticipated opportunities.

As a result, we may need to raise substantial additional capital. Additional capital, if required, may not be available on acceptable terms, or at all. If additional capital is raised through the issuance of debt securities or other debt financing, the terms of such debt may include covenants, restrictions and financial ratios that may restrict our ability to operate our business. In addition, volatility in our stock price may make it more difficult or costly for us to raise capital through the issuance of common stock, preferred stock or other equity securities. If we elect to raise equity capital, this may be dilutive to existing stockholders and could reduce the trading price of our common stock. Moreover, we may be required to include audited annual and unaudited interim historical financial statements of Legacy Zhong in any registration statement for the sale of shares of our common stock or other securities, which may make it more costly and time consuming for us to raise additional capital through a public offering of securities. If we are unable to obtain additional capital or are required to obtain additional capital on terms that are not favorable to us, we may be required to reduce the scope of our planned product development and sales and marketing efforts beyond the reductions that we have previously taken, which could have a material adverse effect on our business, financial condition and results of operations.

### **The integration of Legacy Zhong and DNS may not be completed successfully, cost-effectively or on a timely basis, and we may not realize the full benefits of the Merger.**

Our ability to realize the anticipated benefits of the Merger will depend, to a large extent, on our ability to successfully integrate the Legacy Zhong and DNS businesses. Integrating and coordinating certain aspects of the operations and personnel of the two businesses and managing the expansion in the scope of our operations and financial systems involves complex operational, technological and personnel-related challenges. Our management will be required to devote a significant amount of time and attention to the process of integrating the Legacy Zhong operations with those of DNS. The potential difficulties, and resulting costs and delays, relating to the integration of the Legacy Zhong and DNS businesses include, among others:

- the diversion of management's attention from day-to-day operations;
- the management of a significantly larger company than before the Merger;
- the assimilation of DNS employees and the integration of the two business cultures;
- challenges in attracting and retaining key personnel;
- the need to integrate information, accounting, finance, sales, billing, payroll and regulatory compliance systems;
- challenges in keeping existing customers and obtaining new customers; and
- challenges in combining product offerings and sales and marketing activities.

There is no assurance that we will successfully or cost-effectively integrate the Legacy Zhong and DNS operations. The costs of achieving systems integration may substantially exceed our current estimates. As a non-public company prior to the Merger, DNS did not have to comply with the requirements of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, for internal control over financial reporting and other procedures. Accordingly, neither DNS nor its independent auditors undertook a formal assessment or audit of DNS' internal control over financial reporting prior to the Merger. However, in connection with the preparation and external audit of DNS' consolidated financial statements as of and for the three years ended December 31, 2015 and the preparation and review of DNS' unaudited condensed consolidated financial statements as of and for the three

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months ended March 31, 2016, DNS and its independent auditors noted two material weaknesses in DNS' internal control over financial reporting. The material weaknesses that were identified were (a) lack of resources that are knowledgeable about U.S. GAAP and SEC reporting matters to allow the company to prepare the required filings on an accurate and timely basis as a U.S. domestic registrant, and (b) lack of knowledge and experience in preparing financial statements under U.S. GAAP and that comply with SEC reporting matters on a timely and accurate basis as a U.S. domestic registrant. Bringing the legacy systems for the DNS business into compliance with requirements under the Sarbanes-Oxley Act may cause us to incur substantial additional expense. If we are unable to implement and maintain an effective system of internal controls, the existence of one or more internal control deficiencies could result in errors in our financial statements, and substantial costs and resources may be required to rectify internal control deficiencies. If we cannot produce reliable financial reports, investors could lose confidence in our reported financial information, the market price of our stock could decline significantly, we may be unable to obtain additional financing to operate and expand our business, and our business and financial condition could be materially harmed. In addition, the integration process may cause an interruption of, or loss of momentum in, the activities of our business. If our management is not able to effectively manage the integration process, or if any significant business activities are interrupted as a result of the integration process, our business could suffer and its results of operations and financial condition may be harmed.

Even if the businesses of Legacy Zhone and DNS are successfully integrated, we may not realize the full benefits of the Merger, including anticipated cost synergies, growth opportunities and other financial and operating benefits, within the expected timeframe or at all. In addition, we expect to incur significant integration and restructuring expenses to realize synergies. However, many of the expenses that will be incurred are, by their nature, difficult to estimate accurately. These expenses could, particularly in the near term, exceed the savings that we expect to achieve from elimination of duplicative expenses and the realization of economies of scale and cost savings. Although we expect that the realization of efficiencies related to the integration of the businesses may offset incremental transaction, Merger-related and restructuring costs over time, we cannot give any assurance that this net benefit will be achieved in the near term, or at all. Any of these matters could adversely affect our businesses or harm our financial condition, results of operations and prospects.

**We have identified material weaknesses in our internal control over financial reporting, and we cannot provide assurances that these weaknesses will be effectively remediated or that additional material weaknesses will not occur in the future. If our internal control over financial reporting or our disclosure controls and procedures are not effective, we may not be able to accurately report our financial results, prevent fraud or file our periodic reports in a timely manner, which may cause investors to lose confidence in our reported financial information and which may lead to a decline in our stock price.**

On February 20, 2017, the Audit Committee of our Board of Directors concluded, in consultation with management and after informing our independent registered public accounting firm, that, due to incorrect application of generally accepted accounting principles that resulted in material misstatements and a restatement of our unaudited condensed consolidated financial statements, our previously issued interim unaudited condensed consolidated financial statements for the three and nine months ended September 30, 2016 should no longer be relied upon. On March 21, 2017, the Audit Committee of our Board of Directors concluded, in consultation with management and after informing our former independent registered public accounting firm, that Legacy Zhone's unaudited condensed consolidated financial statements for the quarter ended June 30, 2016 should also no longer be relied upon due to material errors associated with the sale and subsequent return of certain products sold in December 2014. In connection with such finding, the Audit Committee commenced an independent investigation to determine whether any financial statements of Legacy Zhone prior to the quarter ended June 30, 2016 contained material errors. As a result of this investigation, which concluded in late July 2017, the Audit Committee concluded, in consultation with management and after informing our former independent registered public accounting firm, that Legacy Zhone's unaudited condensed consolidated financial statements for the quarters ended March 31, 2015, June 30, 2015, September 30, 2015 and March 31, 2016 and Legacy Zhone's audited consolidated financial statements and assessments of internal control over financial reporting, including disclosure controls and procedures, for the years ended December 31, 2015 and 2014 should no longer be relied upon. See "Business - Audit Committee Investigation" above for additional information.

Furthermore, as discussed in "Part II, Item 9A. Controls and Procedures," our management has identified material weaknesses in our internal control over financial reporting as of December 31, 2016. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the registrant's annual or interim financial statements will not be prevented or detected on a timely basis.

We did not maintain an effective control environment as there was an insufficient complement of personnel with appropriate accounting knowledge, experience and competence, resulting in incorrect application of generally accepted accounting principles. This material weakness contributed to the following material weaknesses. We did not maintain effective controls over our financial close process. Also, we did not design and maintain effective controls over the review of supporting information to determine the completeness and accuracy of the accounting for complex transactions, specifically related to the business combination that occurred on September 9, 2016, which resulted in an incorrect application of generally accepted

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accounting principles that resulted in material misstatements and a restatement of our unaudited condensed consolidated financial statements for the three and nine months ended September 30, 2016.

As of the date of this report, we are re-assessing the design of our controls and modifying processes related to the accounting for significant and unusual transactions as well as enhancing monitoring and oversight controls in the application of applicable accounting guidance related to such transactions. In connection therewith, we anticipate that we will hire additional accounting personnel with relevant skills, training and experience, and conduct further training of accounting and finance personnel. We believe that these initiatives will remediate the material weaknesses in internal control over financial reporting described above. However, there can be no assurance that we will be able to fully remediate our existing material weaknesses or that our internal control over financial reporting will not suffer in the future from other material weaknesses, thus making us unable to prevent or detect on a timely basis material misstatements in our periodic reports with the SEC. If we fail to remediate these material weaknesses or otherwise maintain effective internal control over financial reporting in the future, the existence of one or more internal control deficiencies could result in errors in our financial statements, and substantial costs and resources may be required to rectify internal control deficiencies. If we cannot produce reliable financial reports, we may have difficulty in filing timely periodic reports with the SEC, investors could lose confidence in our reported financial information, the market price of our stock could decline significantly, we may be unable to obtain additional financing to operate and expand our business, and our business and financial condition could be materially harmed. In addition, any failure to remediate the existing material weaknesses or a failure to maintain effective internal control over financial reporting could negatively impact our results of operations, cash flows and financial condition, subject us to potential litigation and regulatory inquiry and cause us to incur additional costs in future periods relating to the implementation of remedial measures.

Matters relating to or arising from the Audit Committee investigation and the associated material weaknesses identified in our internal control over financial reporting, including adverse publicity, have caused us to incur significant legal, accounting and other professional fees and other costs, have exposed us to greater risks associated with other civil litigation, regulatory proceedings and government enforcement actions, have diverted resources and attention that would otherwise be directed toward our operations and implementation of our business strategy and may impact our ability to attract and retain customers, employees and vendors, any of which could have a material adverse effect on our business, financial condition and results of operations.

### **Our future operating results are difficult to predict and our stock price may continue to be volatile.**

As a result of a variety of factors discussed in this report, our revenues for a particular quarter are difficult to predict. Our revenue and operating results may vary significantly from quarter to quarter due to a number of factors, many of which are outside of our control. The primary factors that may affect our results of operations include the following:

- commercial acceptance of our products and services;
- fluctuations in demand for network access products;
- the timing and size of orders from customers;
- the ability of our customers to finance their purchase of our products as well as their own operations;
- new product introductions, enhancements or announcements by our competitors;
- our ability to develop, introduce and ship new products and product enhancements that meet customer requirements in a timely manner;
- changes in our pricing policies or the pricing policies of our competitors;
- the ability of our company and our contract manufacturers to attain and maintain production volumes and quality levels for our products;
- our ability to obtain sufficient supplies of sole or limited source components;
- increases in the prices of the components we purchase, or quality problems associated with these components;
- unanticipated changes in regulatory requirements which may require us to redesign portions of our products;
- changes in accounting rules;
- integrating and operating any acquired businesses;

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- our ability to achieve targeted cost reductions;
- how well we execute on our strategy and operating plans; and
- general economic conditions as well as those specific to the communications, internet and related industries.

Any of the foregoing factors, or any other factors discussed elsewhere herein, could have a material adverse effect on our business, results of operations, and financial condition that could adversely affect our stock price. We anticipate that our stock price and trading volume may continue to be volatile in the future, whether due to the factors described above, volatility in public stock markets generally (particularly in the technology sector) or otherwise.

Between October 2011 and July 2013, in December 2015 and between December 2016 and February 2017, the bid price for our common stock traded below the \$1.00 minimum per share bid price required for continued inclusion on the Nasdaq Capital Market under Marketplace Rule 5550(a)(2). We have received letters from Nasdaq requiring us to regain compliance within a specified period. A failure to regain compliance could result in our stock being delisted, subject to a right of appeal. On February 28, 2017, we effected a one-for-five reverse stock split of our outstanding shares of common stock. As a result of this, in March 2017, we received written notification from Nasdaq advising us that we had regained compliance with the minimum bid price rule as the closing bid price of our common stock had been \$1.00 per share or greater for ten consecutive business days. There can be no assurance that our stock price will remain above the minimum bid price or that we will be able to regain compliance if our stock price falls below the minimum bid price again in the future. In addition, if our average market capitalization falls below the carrying value of our assets for an extended period of time as it has done during recent years, this may indicate that the fair value of our net assets is below their carrying value, and may result in recording impairment charges.

### **We have experienced significant losses and we may incur losses in the future. If we fail to generate sufficient revenue to sustain our profitability, our stock price could decline.**

We have incurred significant losses to date and expect that our operating losses and negative cash flows from operations may continue. Our net loss was \$15.3 million for the year ended December 31, 2016 and we had an accumulated deficit of \$19.9 million at December 31, 2016. We have significant fixed expenses and expect that we will continue to incur substantial manufacturing, research and product development, sales and marketing, customer support, administrative and other expenses in connection with the ongoing development of our business. In addition, we may be required to spend more on research and product development than originally budgeted to respond to industry trends. We may also incur significant new costs related to acquisitions and the integration of new technologies and other acquisitions that may occur in the future. We may not be able to adequately control costs and expenses or achieve or maintain adequate operating margins. As a result, our ability to sustain profitability in future periods will depend on our ability to generate and sustain higher revenue while maintaining reasonable cost and expense levels. If we fail to generate sufficient revenue to sustain profitability in future periods, we may continue to incur operating losses, which could be substantial, and our stock price could decline.

### **Our level of indebtedness could adversely affect our business, operating results and financial condition.**

We have a significant amount of indebtedness. As of December 31, 2016, the aggregate principal amount of our total outstanding indebtedness was \$24.4 million, which comprised \$17.6 million in aggregate principal amount of outstanding borrowings under our short-term debt obligations and \$6.8 million in related party borrowings. We may incur additional indebtedness in the future, including additional borrowings under our credit facility with Wells Fargo Bank (the WFB Facility). The level of indebtedness could have important consequences and could materially and adversely affect us in a number of ways, including:

- limiting our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions or general corporate purposes;
- limiting our flexibility to plan for, or react to, changes in our business or market conditions;
- requiring us to use a significant portion of any future cash flow from operations to repay or service the debt, thereby reducing the amount of cash available for other purposes;
- making us more highly leveraged than some of our competitors, which may place us at a competitive disadvantage; and
- making us more vulnerable to the impact of adverse economic and industry conditions and increases in interest rates.

The WFB Facility and the instruments governing our other indebtedness include covenants (including, in the case of the WFB Facility, financial ratios) that may restrict our ability to operate our business. These covenants restrict, among other matters, our

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ability to incur additional indebtedness, grant liens, sell or dispose of assets, make loans and investments, pay dividends, redeem or repurchase capital stock, enter into affiliate transactions and consolidate or merger with, or sell substantially all of our assets to, another person. If we default under the WFB Facility or other instrument governing our other indebtedness because of a covenant breach or otherwise, all amounts outstanding thereunder could become immediately due and payable. In addition, WFB may be entitled to, among other things, sell our assets to satisfy the obligations under the WFB Facility. In the past we have violated the covenants in our credit facilities and received waivers for these violations. We were in compliance with our covenants under our WFB Facility as of December 31, 2016. We cannot assure you that we will be able to comply with our financial or other covenants in the future or that any covenant violations will be waived in the future. Any acceleration of amounts due could have a material adverse effect on our liquidity and financial condition.

We cannot assure you that we will be able to generate cash flow in amounts sufficient to enable us to service our debt or to meet our working capital and capital expenditure requirements. If we are unable to generate sufficient cash flow from operations or to borrow sufficient funds to service our debt, due to borrowing base restrictions or otherwise, we may be required to sell assets, reduce capital expenditures, purchase credit insurance or obtain additional financing. We cannot assure you that we will be able to engage in any of these actions on reasonable terms, if at all.

### **Our business and future operating results are subject to global economic and market conditions.**

Market turbulence and weak economic conditions, as well as concerns about energy costs, geopolitical issues, the availability and cost of credit, business and consumer confidence, and unemployment could impact our business in a number of ways, including:

*Potential deferment of purchases and orders by customers* : Uncertainty about global economic conditions may cause consumers, businesses and governments to defer purchases in response to flat revenue budgets, tighter credit, decreased cash availability and weak consumer confidence. Accordingly, future demand for our products could differ materially from our current expectations.

*Customers' inability to obtain financing to make purchases and/or maintain their business*: Some of our customers require substantial financing in order to finance their business operations, including capital expenditures on new equipment and equipment upgrades, and make purchases from us. The potential inability of these customers to access the capital needed to finance purchases of our products and meet their payment obligations to us could adversely impact our financial condition and results of operations. While we monitor these situations carefully and attempt to take appropriate measures to protect ourselves, including factoring credit arrangements to financial institutions, it is possible that we may have to defer revenue until cash is collected or write-down or write-off uncollectible accounts. Such write-downs or write-offs, if large, could have a material adverse effect on our results of operations and financial condition. If our customers become insolvent due to market and economic conditions or otherwise, it could have a material adverse impact on our business, financial condition and results of operations.

*Negative impact from increased financial pressures on third-party dealers, distributors and retailers* : We make sales in certain regions through third-party dealers, distributors and retailers. These third parties may be impacted, among other things, by a significant decrease in available credit. If credit pressures or other financial difficulties result in insolvency for these third parties and we are unable to successfully transition end customers to purchase our products from other third parties, or from us directly, it could adversely impact our financial condition and results of operations.

*Negative impact from increased financial pressures on key suppliers*: Our ability to meet customers' demands depends, in part, on our ability to obtain timely and adequate delivery of quality materials, parts and components from our suppliers. Certain of our components are available only from a single source or limited sources. If certain key suppliers were to become capacity constrained or insolvent, it could result in a reduction or interruption in supplies or a significant increase in the price of supplies and adversely impact our financial condition and results of operations. In addition, credit constraints of key suppliers could result in accelerated payment of accounts payable by us, impacting our cash flow.

We may experience material adverse impacts on our business, operating results and financial condition as a result of weak or recessionary economic or market conditions in the United States, Korea or the rest of the world.

### **If demand for our products and solutions does not develop as we anticipate, then our results of operations and financial condition will be adversely affected.**

Our future revenue depends significantly on our ability to successfully develop, enhance and market our products and solutions to our target markets. Most network service providers have made substantial investments in their current infrastructure, and they may elect to remain with their current architectures or to adopt new architectures in limited stages or over extended periods of time. A decision by a customer to purchase our products will involve a significant capital investment. We must

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convince our service provider customers that they will achieve substantial benefits by deploying our products for future upgrades or expansions. We may experience difficulties with product reliability, partnering, and sales and marketing efforts that could adversely affect our business and divert management attention and resources from our core business. We do not know whether a viable market for our products and solutions will develop or be sustainable in our businesses. If these markets do not develop or develop more slowly than we expect, our business, financial condition and results of operations will be seriously harmed.

**We depend upon the development of new products and enhancements to existing products, and if we fail to predict and respond to emerging technological trends and customers' changing needs, our operating results and market share may suffer.**

The markets for our products are characterized by rapidly changing technology, evolving industry standards, changes in end-user requirements, frequent new product introductions and changes in communications offerings from network service provider customers. Our future success depends on our ability to anticipate or adapt to such changes and to offer, on a timely and cost-effective basis, products that meet changing customer demands and industry standards. We may not have sufficient resources to successfully and accurately anticipate customers' changing needs and technological trends, manage long development cycles or develop, introduce and market new products and enhancements. The process of developing new technology is complex and uncertain, and if we fail to develop new products or enhancements to existing products on a timely and cost-effective basis, or if our new products or enhancements fail to achieve market acceptance, our business, financial condition and results of operations would be materially adversely affected.

**Because our products are complex and are deployed in complex environments, our products may have defects that we discover only after full deployment by our customers, which could seriously harm our business.**

We produce highly complex products that incorporate leading-edge technology, including both hardware and software. Software typically contains defects or programming flaws that can unexpectedly interfere with expected operations. In addition, our products are complex and are designed to be deployed in large quantities across complex networks. Because of the nature of these products, they can only be fully tested when completely deployed in large networks with high amounts of traffic, and there is no assurance that our pre-shipment testing programs will be adequate to detect all defects. As a result, our customers may discover errors or defects in our hardware or software, or our products may not operate as expected, after they have been fully deployed by our customers. If we are unable to cure a product defect, we could experience damage to our reputation, reduced customer satisfaction, loss of existing customers and failure to attract new customers, failure to achieve market acceptance, reduced sales opportunities, loss of revenue and market share, increased service and warranty costs, diversion of development resources, legal actions by our customers, and increased insurance costs. Defects, integration issues or other performance problems in our products could also result in financial or other damages to our customers. Our customers could seek damages for related losses from us, which could seriously harm our business, financial condition and results of operations. A product liability claim brought against us, even if unsuccessful, would likely be time consuming and costly. The occurrence of any of these problems would seriously harm our business, financial condition and results of operations.

**Due to the international nature of our business, political or economic changes or other factors in a specific country or region could harm our future revenue, costs and expenses and financial condition.**

We currently have significant operations in Korea, as well sales and technical support teams in various locations around the world. Many of our international sales may be denominated in foreign currencies. Because we do not currently engage in material foreign currency hedging transactions related to international sales, a decrease in the value of foreign currencies relative to the U.S. dollar could result in losses from transactions denominated in foreign currencies. We expect to continue expanding our international operations in the future. The successful management and expansion of our international operations requires significant human effort and the commitment of substantial financial resources. Further, our international operations may be subject to certain risks, disruptions and challenges that could materially harm our business and our operating results, including:

- unexpected changes in laws, policies and regulatory requirements, including but not limited to regulations related to import-export control;
- trade protection measures, tariffs, embargoes and other regulatory requirements which may affect our ability to import or export our products into or from various countries;
- political unrest or instability, acts of terrorism or war in countries where we or our suppliers or customers have operations, including heightened security concerns relating to our operations in Korea stemming from North Korea's nuclear weapons and ballistic missile programs and increased uncertainty regarding North Korea's actions and possible responses from the international community;

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- political considerations that affect service provider and government spending patterns;
- differing technology standards or customer requirements;
- developing and customizing our products for foreign countries;
- fluctuations in currency exchange rates, foreign exchange controls and restrictions on cash repatriation;
- longer accounts receivable collection cycles and financial instability of customers;
- requirements for additional liquidity to fund our international operations;
- difficulties and excessive costs for staffing and managing foreign operations;
- ineffective legal protection of our intellectual property rights in certain countries;
- potentially adverse tax consequences; and
- changes in a country's or region's political and economic conditions.

In addition, some of our customer purchase agreements are governed by foreign laws, which may differ significantly from U.S. laws. We may be limited in our ability to enforce our rights under these agreements and to collect damages, if awarded. Any of these factors could harm our existing international operations and business or impair our ability to continue expanding into international markets.

### **We are subject to Korean foreign currency exchange rate risk.**

We conduct significant business in Korea and as of December 31, 2016 our Korean subsidiary held more than half of our cash and cash equivalents, both of which subject us to Korean foreign currency exchange rate risk. Currently, we do not hold or issue foreign currency forward contracts, option contracts or other derivative financial instruments to mitigate the currency exchange rate risk. Our results of operations and our cash flows could be impacted by changes in foreign currency exchange rates.

### **A shortage of adequate component supply or manufacturing capacity could increase our costs or cause a delay in our ability to fulfill orders, and our failure to estimate customer demand properly may result in excess or obsolete component inventories that could adversely affect our gross margins.**

Occasionally, we may experience a supply shortage, or a delay in receiving, certain component parts as a result of strong demand for the component parts and/or capacity constraints or other problems experienced by suppliers. If shortages or delays persist, the price of these components may increase, or the components may not be available at all, and we may also encounter shortages if we do not accurately anticipate our needs. Conversely, we may not be able to secure enough components at reasonable prices or of acceptable quality to build new products in a timely manner in the quantities or configurations needed. Accordingly, our revenue and gross margins could suffer until other sources can be developed. Our operating results would also be adversely affected if, anticipating greater demand than actually develops, we commit to the purchase of more components than we need. Furthermore, as a result of binding price or purchase commitments with suppliers, we may be obligated to purchase components at prices that are higher than those available in the current market. In the event that we become committed to purchase components at prices in excess of the current market price, our gross margins could decrease. In the past we experienced component shortages that adversely affected our financial results and in the future may continue to experience component shortages.

### **We rely on contract manufacturers for a portion of our manufacturing requirements.**

We rely on contract manufacturers to perform a portion of the manufacturing operations for our products. These contract manufacturers build product for other companies, including our competitors. In addition, we do not have contracts in place with some of these providers and may not be able to effectively manage those relationships. We cannot be certain that our contract manufacturers will be able to fill our orders in a timely manner. We face a number of risks associated with this dependence on contract manufacturers including reduced control over delivery schedules, the potential lack of adequate capacity during periods of excess demand, poor manufacturing yields and high costs, quality assurance, increases in prices, and the potential misappropriation of our intellectual property. We have experienced in the past, and may experience in the future, problems with our contract manufacturers, such as inferior quality, insufficient quantities and late delivery of products.

### **We depend on a limited source of suppliers for several key components. If we are unable to obtain these components on a timely basis, we will be unable to meet our customers' product delivery requirements, which would harm our business.**

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We currently purchase several key components from a limited number of suppliers. If any of our limited source of suppliers become insolvent, cease business or experience capacity constraints, work stoppages or any other reduction or disruption in output, they may be unable to meet our delivery schedules. Our suppliers may enter into exclusive arrangements with our competitors, be acquired by our competitors, stop selling their products or components to us at commercially reasonable prices, refuse to sell their products or components to us at any price or be unable to obtain or have difficulty obtaining components for their products from their suppliers. If we do not receive critical components from our limited source of suppliers in a timely manner, we will be unable to meet our customers' product delivery requirements. Any failure to meet a customer's delivery requirements could materially adversely affect our business, operating results and financial condition and could materially damage customer relationships.

### **Our target customer base is concentrated, and the loss of one or more of our customers could harm our business.**

The target customers for our products are network service providers that operate voice, data and video communications networks. There are a limited number of potential customers in our target market. For the year ended December 31, 2016, three customers represented 16%, 14% and 10% of net revenue, respectively. For the year ended December 31, 2015, four customers represented 26%, 21% (a related-party), 15% and 10% of net revenue, respectively. We expect that a significant portion of our future revenue will depend on sales of our products to a limited number of customers. As a result, our revenue for any quarter may be subject to significant volatility based on changes in orders from one or a small number of key customers. Any failure of one or more customers to purchase products from us for any reason, including any downturn in their businesses, would seriously harm our business, financial condition and results of operations. See Note 1(n) to the consolidated financial statements set forth in Part II, Item 8 of this report for additional information.

### **Industry consolidation may lead to increased competition and may harm our operating results.**

There has been a trend toward industry consolidation in the communications equipment market for several years. We expect this trend to continue as companies attempt to strengthen or hold their market positions in an evolving industry and as companies are acquired or are unable to continue operations. We believe that industry consolidation may result in stronger competitors that are better able to compete as sole-source vendors for customers. This could have a material adverse effect on our business, financial condition and results of operations. Furthermore, rapid consolidation could result in a decrease in the number of customers we serve. Loss of a major customer could have a material adverse effect on our business, financial condition and results of operations.

### **The market we serve is highly competitive and we may not be able to compete successfully.**

Competition in communications equipment markets is intense. These markets are characterized by rapid change, converging technologies and a migration to networking solutions that offer superior advantages. We are aware of many companies in related markets that address particular aspects of the features and functions that our products provide. Currently, our primary competitors in our core business include Nokia, Calix, Adtran, Huawei, and ZTE, among others. In our FiberLAN business, our competitors include Tellabs and Cisco. We also may face competition from other large communications equipment companies or other companies that may enter our markets in the future. In addition, a number of companies have introduced products that address the same network needs that our products and solutions address, both domestically and abroad. Many of our competitors have longer operating histories, greater name recognition, larger customer bases and greater financial, technical, sales and marketing resources than we do and may be able to undertake more extensive marketing efforts, adopt more aggressive pricing policies and provide more customer financing than we can. In particular, we are encountering price-focused competitors from Asia, especially China, which places pressure on us to reduce our prices. If we are forced to reduce prices in order to secure customers, we may be unable to sustain gross margins at desired levels or achieve profitability. Competitive pressures could result in increased pricing pressure, reduced profit margins, increased sales and marketing expenses and failure to increase, or the loss of, market share, any of which could reduce our revenue and adversely affect our financial results. Moreover, our competitors may foresee the course of market developments more accurately than we do and could develop new technologies that render our products less valuable or obsolete.

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In our markets, principal competitive factors include:

- product performance;
- interoperability with existing products;
- scalability and upgradeability;
- conformance to standards;
- breadth of services;
- reliability;
- ease of installation and use;
- geographic footprints for products;
- ability to provide customer financing;
- pricing;
- technical support and customer service; and
- brand recognition.

If we are unable to compete successfully against our current and future competitors, we may have difficulty obtaining or retaining customers, and we could experience price reductions, order cancellations, increased expenses and reduced gross margins, any of which could have a material adverse effect on our business, financial condition and results of operations.

**Our success largely depends on our ability to retain and recruit key personnel, and any failure to do so would harm our ability to meet key objectives.**

Our future success depends upon the continued services of our Chief Executive Officer and other key employees, and our ability to identify, attract and retain highly skilled technical, managerial, sales and marketing personnel who have critical industry experience and relationships that we rely on to build our business. The loss of the services of any of our key employees, including our Chief Executive Officer, could delay the development and production of our products and negatively impact our ability to maintain customer relationships, which would harm our business, financial condition and results of operations. Moreover, our inability to attract and retain sufficient qualified accounting personnel with expertise in U.S. GAAP following the Merger may adversely affect our ability to maintain an effective system of internal controls or our ability to produce reliable financial reports, which may materially and adversely affect our business.

**Any strategic acquisitions or investments we make could disrupt our operations and harm our operating results.**

On an ongoing basis, we may evaluate acquisitions of, or investments in, complementary companies, products or technologies to supplement our internal growth, may acquire additional businesses, products or technologies in the future.

If we do complete future acquisitions, we could:

- issue stock that would dilute our current stockholders' percentage ownership;
- consume a substantial portion of our cash resources;
- incur substantial debt;
- assume liabilities;
- increase our ongoing operating expenses and level of fixed costs;
- record goodwill and non-amortizable intangible assets that will be subject to impairment testing and potential periodic impairment charges;
- incur amortization expenses related to certain intangible assets;
- incur large and immediate write-offs; and



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- become subject to litigation.

Any acquisitions or investments that we make in the future will involve numerous risks, including:

- difficulties in integrating the operations, technologies, products and personnel of the acquired companies;
- unanticipated costs;
- diversion of management's time and attention away from normal daily operations of the business and the challenges of managing larger and more widespread operations resulting from acquisitions;
- difficulties in entering markets in which we have no or limited prior experience;
- insufficient revenues to offset increased expenses associated with acquisitions and where competitors in such markets have stronger market positions; and
- potential loss of key employees, customers, distributors, vendors and other business partners of the companies we acquire following and continuing after announcement of acquisition plans.

Mergers and acquisitions of high-technology companies are inherently risky and subject to many factors outside of our control, and we cannot be certain that our previous or future acquisitions will be successful and will not materially adversely affect our business, operating results or financial condition. We do not know whether we will be able to successfully integrate the businesses, products, technologies or personnel that we might acquire in the future or that any strategic investments we make will meet our financial or other investment objectives. Any failure to do so could seriously harm our business, financial condition and results of operations.

### **Sales to communications service providers are especially volatile, and weakness in sales orders from this industry may harm our operating results and financial condition.**

Sales activity in the service provider industry depends upon the stage of completion of expanding network infrastructures, the availability of funding, and the extent to which service providers are affected by regulatory, economic and business conditions in the country of operations. Although some service providers may be increasing capital expenditures over the depressed levels that have prevailed over the last few years, weakness in orders from this industry could have a material adverse effect on our business, operating results and financial condition. Slowdowns in the general economy, overcapacity, changes in the service provider market, regulatory developments and constraints on capital availability have had a material adverse effect on many of our service provider customers, with many of these customers going out of business or substantially reducing their expansion plans. These conditions have materially harmed our business and operating results, and we expect that some or all of these conditions may continue for the foreseeable future. Finally, service provider customers typically have longer implementation cycles; require a broader range of service including design services; demand that vendors take on a larger share of risks; often require acceptance provisions, which can lead to a delay in revenue recognition; and expect financing from vendors. All these factors can add further risk to business conducted with service providers.

### **Compliance or the failure to comply with current and future environmental regulations could cause us significant expense.**

We are subject to a variety of federal, state, local and foreign environmental regulations. If we fail to comply with any present and future regulations, we could be subject to future liabilities, the suspension of production or a prohibition on the sale of our products. In addition, such regulations could require us to incur other significant expenses to comply with environmental regulations, including expenses associated with the redesign of any non-compliant product. From time to time new regulations are enacted, and it is difficult to anticipate how such regulations will be implemented and enforced. For example, in 2003 the European Union enacted the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive (RoHS) and the Waste Electrical and Electronic Equipment Directive (WEEE), for implementation in European Union member states. We are aware of similar legislation that is currently in force or is being considered in the United States, as well as other countries, such as Japan and China. Our failure to comply with any of such regulatory requirements or contractual obligations could result in our being liable for costs, fines, penalties and third-party claims, and could jeopardize our ability to conduct business in countries in the jurisdictions where these regulations apply.

### **Adverse resolution of litigation may harm our operating results or financial condition.**

We are a party to various lawsuits and claims in the normal course of our business. Litigation can be expensive, lengthy, and disruptive to normal business operations. Moreover, the results of complex legal proceedings are difficult to predict. An

unfavorable resolution of a particular lawsuit could have a material adverse effect on our business, operating results and financial condition.

**Our intellectual property rights may prove difficult to protect and enforce.**

We generally rely on a combination of copyrights, patents, trademarks and trade secret laws and restrictions on disclosure to protect our intellectual property rights. We also enter into confidentiality or license agreements with our employees, consultants and corporate partners, and control access to and distribution of our proprietary information. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our technology is difficult, and we do not know whether the steps we have taken will prevent unauthorized use of our technology, particularly in foreign countries where the laws may not protect our proprietary rights as extensively as in the United States. We cannot assure you that our pending, or any future, patent applications will be granted, that any existing or future patents will not be challenged, invalidated, or circumvented, or that any existing or future patents will be enforceable. While we are not dependent on any individual patents, if we are unable to protect our proprietary rights, we may find ourselves at a competitive disadvantage to others who need not incur the substantial expense, time and effort required to create the innovative products.

**Claims that our current or future products or components contained in our products infringe the intellectual property rights of others may be costly and time consuming to defend and could adversely affect our ability to sell our products.**

The telecommunications equipment industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent, copyright, trademark and other intellectual property rights, which may relate to technologies and related standards that are relevant to us. From time to time, we receive correspondence from companies claiming that our products are using technology covered by or related to the intellectual property rights of these companies and inviting us to discuss or demanding licensing or royalty arrangements for the use of the technology or seeking payment for damages, injunctive relief and other available legal remedies through litigation. These companies also include third-party non-practicing entities (also known as patent trolls) that focus on extracting royalties and settlements by enforcing patent rights. These companies typically have little or no product revenues and therefore our patents may provide little or no deterrence against such companies filing patent infringement lawsuits against us. In addition, third parties have initiated and may continue to initiate litigation against our manufacturers, suppliers, distributors or even our customers alleging infringement or misappropriation of their proprietary rights with respect to existing or future products, or components of our products. For example, various proceedings have been commenced against Broadcom Corporation and other parties alleging patent infringement in various jurisdictions, and in some cases the courts have issued rulings adverse to Broadcom enjoining Broadcom from offering, distributing, using or importing products that include the challenged intellectual property. Although we are not party to these proceedings, adverse rulings or injunctive relief awarded against Broadcom or other key suppliers of components for our products may result in delays or stoppages in the shipment of affected components, or require us to recall, modify or redesign our products containing such components. Regardless of the merit of claims against us or our manufacturers, suppliers, distributors or customers, intellectual property litigation can be time consuming and costly, and result in the diversion of the attention of technical and management personnel. Any such litigation could force us to stop manufacturing, selling, distributing, exporting, incorporating or using products or components that include the challenged intellectual property, or to recall, modify or redesign such products. In addition, if a party accuses us of infringing upon its proprietary rights, we may have to enter into royalty or licensing agreements, which may not be available on terms acceptable to us, if at all. If we are unsuccessful in any such litigation, we could be subject to significant liability for damages and loss of our proprietary rights. Any of these events or results could have a material adverse effect on our business, financial condition and results of operations.

**We rely on the availability of third party licenses.**

Many of our products are designed to include software or other intellectual property licensed from third parties. It may be necessary in the future to seek or renew licenses relating to various elements of the technology used to develop these products. We cannot assure you that our existing and future third-party licenses will be available to us on commercially reasonable terms, if at all. Our inability to maintain or obtain any third-party license required to sell or develop our products and product enhancements could require us to obtain substitute technology of lower quality or performance standards, or at greater cost.

**The long and variable sales cycles for our products may cause revenue and operating results to vary significantly from quarter to quarter.**

The target customers for our products have substantial and complex networks that they traditionally expand in large increments on a periodic basis. Accordingly, our marketing efforts are focused primarily on prospective customers that may purchase our products as part of a large-scale network deployment. Our target customers typically require a lengthy evaluation, testing and product qualification process. Throughout this process, we are often required to spend considerable time and incur significant

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expense educating and providing information to prospective customers about the uses and features of our products. Even after a company makes the final decision to purchase our products, it may deploy our products over extended periods of time. The timing of deployment of our products varies widely, and depends on a number of factors, including our customers' skill sets, geographic density of potential subscribers, the degree of configuration and integration required to deploy our products, and our customers' ability to finance their purchase of our products as well as their operations. As a result of any of these factors, our revenue and operating results may vary significantly from quarter to quarter.

### **Decreased effectiveness of share-based compensation could adversely affect our ability to attract and retain employees.**

We have historically used stock options as a key component of our employee compensation program in order to align the interests of our employees with the interests of our stockholders, encourage employee retention and provide competitive compensation and benefit packages. If the trading price of our common stock declines, this would reduce the value of our share-based compensation to our present employees and could affect our ability to retain existing or attract prospective employees. Difficulties relating to obtaining stockholder approval of equity compensation plans could also make it harder or more expensive for us to grant share-based payments to employees in the future.

### **Our industry is subject to government regulations, which could harm our business.**

Our operations are subject to various laws and regulations, including those regulations promulgated by the FCC. The FCC has jurisdiction over the entire communications industry in the United States and, as a result, our existing and future products and our customers' products are subject to FCC rules and regulations. Changes to current FCC rules and regulations and future FCC rules and regulations could negatively affect our business. The uncertainty associated with future FCC decisions may cause network service providers to delay decisions regarding their capital expenditures for equipment for broadband services. In addition, international regulatory bodies establish standards that may govern our products in foreign markets. The SEC has adopted disclosure rules regarding the use of "conflict minerals" mined from the Democratic Republic of Congo and adjoining countries (DRC) and procedures regarding a manufacturer's efforts to prevent the sourcing of such conflict minerals. These rules may have the effect of reducing the pool of suppliers who can supply DRC "conflict free" components and parts, and we may not be able to obtain DRC conflict free products or supplies in sufficient quantities for our operations. Also, we may face reputational challenges with our customers, stockholders and other stakeholders if we are unable to sufficiently verify the origins for the conflict minerals used in our products. In addition, governments and regulators in many jurisdictions have implemented or are evaluating regulations relating to cyber security, privacy and data protection, which can affect the markets and requirements for networking and communications equipment. We are unable to predict the scope, pace or financial impact of government regulations and other policy changes that could be adopted in the future, any of which could negatively impact our operations and costs of doing business. Because of our smaller size, legislation or governmental regulations can significantly increase our costs and affect our competitive position. Changes to or future domestic and international regulatory requirements could result in postponements or cancellations of customer orders for our products and services, which would harm our business, financial condition and results of operations. Further, we cannot be certain that we will be successful in obtaining or maintaining regulatory approvals that may, in the future, be required to operate our business.

### **If we experience a significant disruption in, or breach in security of, our information technology systems, our business could be adversely affected.**

We rely on several centralized information technology systems to provide products and services, maintain financial records, process orders, manage inventory, process shipments to customers and operate other critical functions. If we experience a prolonged system disruption in the information technology systems that involve our interactions with customers or suppliers, it could result in the loss of sales and customers and significant incremental costs, which could adversely affect our business. In addition, our information technology systems may be susceptible to damage, disruptions or shutdowns due to power outages, hardware failures, computer viruses, attacks by computer hackers, telecommunication failures, user errors, catastrophes or other unforeseen events. Furthermore, security breaches of our information technology systems could result in the misappropriation or unauthorized disclosure of confidential information belonging to the company or our employees, partners, customers or suppliers, which could result in significant financial or reputational damage to the company.

### **Man-made problems such as cybersecurity attacks, computer viruses or terrorism may disrupt our operations and harm our business, reputation and operating results**

Despite our implementation of network security measures, our network may be vulnerable to cybersecurity attacks, computer viruses, break-ins and similar disruptions. Cybersecurity attacks, in particular, are evolving and include, but are not limited to, malicious software, attempts to gain unauthorized access to data, and other electronic security breaches that could lead to disruptions in systems, unauthorized release of confidential or otherwise protected information and corruption of data. Any such event could have a material adverse effect on our business, operating results and financial condition.

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Our daily business operations require us to retain sensitive data such as intellectual property, proprietary business information and data related to customers, suppliers and business partners within our networking infrastructure. The ongoing maintenance and security of this information is pertinent to the success of our business operations and our strategic goals.

Our networking infrastructure and related assets may be subject to unauthorized access by hackers, employee errors, or other unforeseen activities. Such issues could result in the disruption of business processes, network degradation and system downtime, along with the potential that a third party will exploit our critical assets such as intellectual property, proprietary business information and data related to our customers, suppliers and business partners. To the extent that such disruptions occur, they may cause delays in the manufacture or shipment of our products and the cancellation of customer orders and, as a result, our business operating results and financial condition could be materially and adversely affected resulting in a possible loss of business or brand reputation.

In addition, the effects of war or acts of terrorism could have a material adverse effect on our business, operating results and financial condition. The continued threat of terrorism and heightened security and military action in response to this threat, or any future acts of terrorism, may cause further disruption to the economy and create further uncertainties in the economy. Energy shortages, such as gas or electricity shortages, could have similar negative impacts. To the extent that such disruptions or uncertainties result in delays or cancellations of customer orders or the manufacture or shipment of our products, our business, operating results and financial condition could be materially and adversely affected.

### **Our business and operations are especially subject to the risks of earthquakes and other natural catastrophic events.**

Our corporate headquarters, including a significant portion of our research and development operations, are located in Northern California, a region known for seismic activity. Additionally, some of our facilities, including our manufacturing facility in Florida, are located near geographic areas that have experienced hurricanes in the past. For example, Hurricane Irma caused substantial damage and devastation in South Florida in September 2017, including in Seminole, the location of our manufacturing facility. A significant natural disaster, such as an earthquake, hurricane, fire, flood or other catastrophic event, could severely affect our ability to conduct normal business operations, and as a result, our future operating results could be materially and adversely affected.

### **As long as DNI controls us, other holders of our common stock will have limited ability to influence matters requiring stockholder approval and DNI's interest may conflict with our interests and the interests of other stockholders.**

As of December 31, 2016, DNI owned approximately 58% of the outstanding shares of our common stock. Accordingly, until such time as DNI and its affiliates hold shares representing less than a majority of the votes entitled to be cast by the holders of our outstanding common stock at a stockholder meeting, DNI generally will have the ability to control the outcome of any matter submitted for the vote of our stockholders, except in certain circumstances set forth in our certificate of incorporation or bylaws. In addition, pursuant to our bylaws, we are subject to certain requirements and limitations regarding the composition of our board of directors until September 2018. Thereafter, for so long as DNI and its affiliates hold shares of our common stock representing at least a majority of the votes entitled to be cast by the holders of our common stock at a stockholder meeting, DNI will be able to freely nominate and elect all the members of our board of directors, subject only to a requirement that a certain number of directors qualify as "independent directors" under Nasdaq listing rules and applicable laws. We have elected to be treated as a "controlled company" under Nasdaq Marketplace Rules because more than 50% of the voting power for the election of directors is held by DNI. As a "controlled company," we may rely on exemptions from certain corporate governance requirements under Nasdaq Marketplace Rules, including the requirement that we have a majority of independent directors on the Board of Directors and requirements with respect to compensation and nominating and corporate governance committees. The directors elected by DNI will have the authority to make decisions affecting our capital structure, including the issuance of additional capital stock or options, the incurrence of additional indebtedness, the implementation of stock repurchase programs, and the declaration of dividends. The interests of DNI may not coincide with the interests of our other stockholders or with holders of our indebtedness. DNI's ability, subject to the limitations in our certificate of incorporation and bylaws, to control all matters submitted to our stockholders for approval limits the ability of other stockholders to influence corporate matters and, as a result, we may take actions that our stockholders or holders of our indebtedness do not view as beneficial. In addition, the existence of a controlling stockholder may have the effect of making it more difficult for a third party to acquire, or discouraging a third party from seeking to acquire, us. A third party would be required to negotiate any such transaction with DNI, and the interests of DNI with respect to such transaction may be different from the interests of our other stockholders or with holders of our indebtedness. In addition, provisions of our certificate of incorporation, bylaws and Delaware law could make it more difficult for a third party to acquire us, even if doing so would be beneficial to certain stockholders.

### **Future sales of our common stock could lower our stock price and dilute existing shareholders.**

We issued a total of approximately 9.5 million shares (post reverse stock split) of our common stock to DNI in connection with the Merger, and may issue additional shares of common stock to finance future acquisitions through the use of equity. DNI has

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the right to require us to register with the SEC resales of the shares issued in connection with the Merger from time to time. In the event that DNI exercises its registration rights with respect to such shares, such shares would become eligible for resale upon registration. Additionally, shares of our common stock are available for future sale pursuant to awards granted under our equity incentive plans. Our stock price may suffer a significant decline as a result of any sudden increase in the number of shares sold in the public market or market perception that the increased number of shares available for sale will exceed the demand for our common stock.

### **There is a limited public market of our common stock.**

There is a limited public market for our common stock. The average daily trading volume in our common stock during the 12 months ended December 31, 2016 was approximately 15,410 shares (post reverse stock split) per day. We cannot provide assurances that a more active trading market will develop or be sustained. As a result of low trading volume in our common stock, the purchase or sale of a relatively small number of shares of our common stock could result in significant price fluctuations and it may be difficult for holders to sell their shares without depressing the market price for our common stock.

### **ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

### **ITEM 2. PROPERTIES**

We lease our worldwide headquarters, which are located in Oakland, California. We also lease facilities for manufacturing, research and development purposes at locations including Seminole, Florida and Alpharetta, Georgia, and in Korea, India, China and Vietnam. We maintain smaller offices to provide sales and customer support at various domestic and international locations. We manufacture many of our more complex products at our manufacturing facility in Florida. We believe that our existing facilities are suitable and adequate for our present purposes.

### **ITEM 3. LEGAL PROCEEDINGS**

We are subject to various legal proceedings, claims and litigation arising in the ordinary course of business. While the outcome of these matters is currently not determinable, we do not expect that the ultimate costs to resolve these matters will have a material adverse effect on our consolidated financial position or results of operations. However, litigation is subject to inherent uncertainties, and unfavorable rulings could occur. If an unfavorable ruling were to occur, there exists the possibility of a material adverse impact on the results of operations of the period in which the ruling occurs, or future periods.

### **ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

**PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES****Price Range of Common Stock**

Our common stock is listed on the Nasdaq Capital Market under the symbol "DZSI" (formerly "ZHNE" prior to the Merger). The following table sets forth, for the periods indicated, the high and low per share sales prices of our common stock as reported on Nasdaq. All per share prices reflect the one-for-five reverse stock split effected on February 28, 2017.

2016:

	<b>High</b>		<b>Low</b>
Fourth Quarter ended December 31, 2016	\$ 5.95	\$	4.65
Third Quarter ended September 30, 2016	7.10		5.25
Second Quarter ended June 30, 2016	8.25		5.60
First Quarter ended March 31, 2016	8.10		5.00

2015:

	<b>High</b>		<b>Low</b>
Fourth Quarter ended December 31, 2015	\$ 7.50	\$	4.70
Third Quarter ended September 30, 2015	11.20		6.80
Second Quarter ended June 30, 2015	14.75		6.25
First Quarter ended March 31, 2015	8.75		6.05

As of September 20, 2017, there were 596 registered stockholders of record. A substantially greater number of holders of DZS common stock are "street name" or beneficial holders, whose shares are held of record by banks, brokers and other financial institutions.

**Dividend Policy**

We have never paid or declared any cash dividends on our common stock or other securities and do not anticipate paying cash dividends in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of the Board of Directors, subject to any applicable restrictions under our debt and credit agreements, and will be dependent upon our financial condition, results of operations, capital requirements, general business condition and such other factors as the Board of Directors may deem relevant.

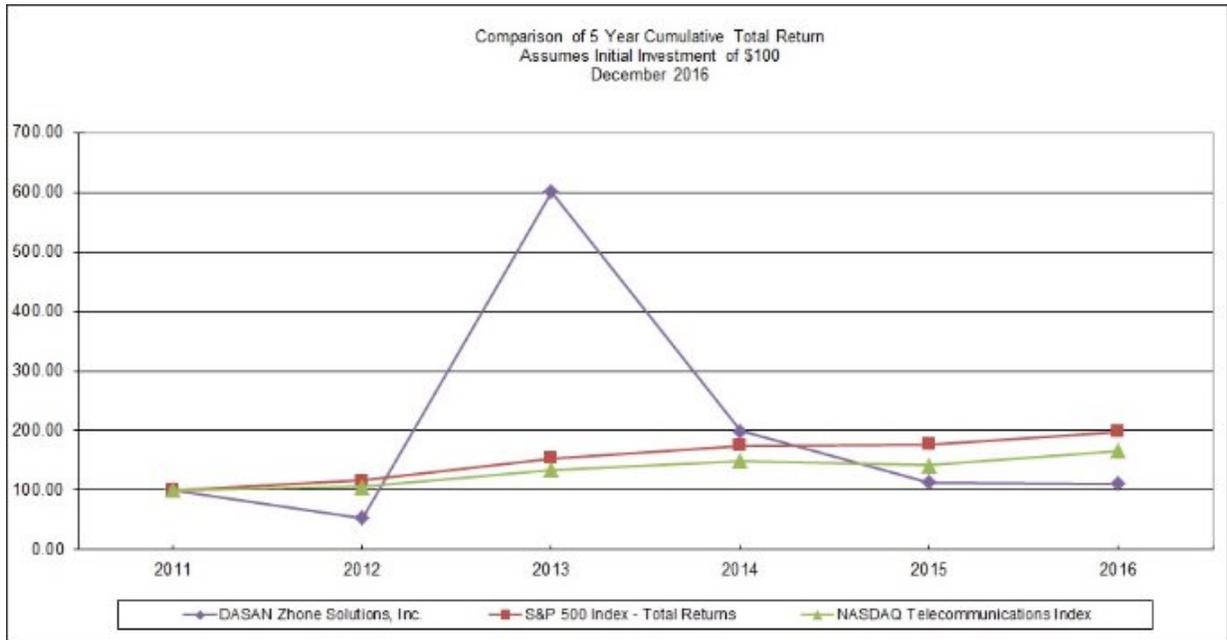
**Performance Graph**

The following performance graph shall not be deemed to be incorporated by reference by means of any general statement incorporating by reference this Annual Report on Form 10-K into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that we specifically incorporate this information by reference, and shall not otherwise be deemed filed under those acts.

The graph compares the cumulative total return of our common stock from December 31, 2011 through December 31, 2016 with the performance of the S&P 500 Index and the NASDAQ Telecommunications Index over those periods.

The graph assumes that (i) \$100 was invested in our common stock at the closing price of our common stock on December 31, 2011, (ii) \$100 was invested in each of the S&P 500 Index and the NASDAQ Telecommunications Index at the closing price of the respective indices on that date and (iii) all dividends received were reinvested. To date, no cash dividends have been declared or paid on our common stock.

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	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16
DASAN Zhone Solutions, Inc.	\$100	\$53	\$601	\$199	\$113	\$111
S&P 500 Index - Total Returns	\$100	\$116	\$154	\$175	\$177	\$198
NASDAQ Telecommunications Index	\$100	\$105	\$134	\$150	\$142	\$167

**ITEM 6. SELECTED FINANCIAL DATA**

The following selected financial data has been derived from our consolidated financial statements and should be read in conjunction with the consolidated financial statements and notes thereto, and with “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

The Merger has been accounted for as a reverse acquisition under which DNS was considered the accounting acquirer of DZS. As such, the selected financial data below comprises the operating results of DNS and its consolidated subsidiaries for periods through September 8, 2016 and DZS. and its consolidated subsidiaries for periods on or after September 9, 2016, the effective date of the Merger.

	Year Ended December 31,				
	2016	2015	2014	2013	2012
		(As restated)	(As restated)		
(in thousands, except per share data)					
<b>Statement of Comprehensive Income (Loss) Data:</b>					
Net revenue	\$ 121,670	\$ 114,421	\$ 108,634	\$ 108,046	\$ 102,761
Net revenue - related parties	28,634	24,775	30,760	10,164	5,610
Total net revenue	150,304	139,196	139,394	118,210	108,371
Cost of revenue					
Products and services	84,415	81,420	70,361	66,821	58,689
Products and services - related parties	24,738	21,890	28,191	10,436	6,002
Amortization of intangible assets	204	—	—	—	—
Gross profit	40,947	35,886	40,842	40,953	43,680
Operating expenses:					
Research and product development	25,396	21,331	22,805	18,774	18,019
Selling, marketing, general and administrative	27,348	17,528	14,834	14,040	18,438
Amortization of intangible assets	1,556	4	—	—	—
Gain from sale of assets	(304)	—	—	—	—
Total operating expenses	53,996	38,863	37,639	32,814	36,457
Operating income (loss)	(13,049)	(2,977)	3,203	8,139	7,223
Interest income	183	136	418	550	1,314
Interest expense	(830)	(532)	(526)	(629)	(523)
Other income (expense), net	(145)	266	122	656	(691)
Income (loss) before income taxes	(13,841)	(3,107)	3,217	8,716	7,323
Income tax provision	1,487	232	1,380	2,208	2
Net income (loss)	(15,328)	(3,339)	1,837	6,508	7,321
Net loss attributable to non-controlling interest	(2)	—	—	—	—
Net income (loss) attributable to DASAN Zhone Solutions, Inc.	\$ (15,326)	\$ (3,339)	\$ 1,837	\$ 6,508	\$ 7,321
Foreign currency translation adjustments	(1,047)	(2,790)	(1,997)	905	2,570
Comprehensive income (loss)	(16,375)	(6,129)	(160)	7,413	9,891
Comprehensive income attributable to non-controlling interest	1	—	—	—	—
Comprehensive income (loss) attributable to DASAN Zhone Solutions, Inc.	\$ (16,376)	\$ (6,129)	\$ (160)	\$ 7,413	\$ 9,891
Basic and diluted net income (loss) per share attributable to DASAN Zhone Solutions, Inc. <sup>(1)(2)</sup>	\$ (1.32)	\$ (0.36)	\$ 0.20	\$ 0.71	\$ 0.80
Weighted average shares outstanding used to compute basic and diluted net income (loss) per share <sup>(1)</sup>	11,637	9,314	9,199	9,146	9,126

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(1) Amount presented has been adjusted to reflect the one-for-five reverse stock split effected on February 29, 2017.

(2) Basic net income (loss) per share is not different from the diluted net income (loss) per share because we have not issued the potential common stock for the years ended December 31, 2012 through 2015. Basic net loss per share is the same as diluted net loss per share for the year ended December 31, 2016 because the effects of stock options and restricted stock units would have been anti-dilutive.

	As of December 31,				
	2016	2015	2014	2013	2012
		(As restated)	(As restated)		
	(in thousands)				
<b>Balance Sheet Data:</b>					
Cash, cash equivalents and short-term investments	\$ 18,886	\$ 9,095	\$ 7,150	\$ 24,719	\$ 11,581
Working capital	56,819	33,159	40,033	37,987	28,082
Total assets	145,447	83,226	103,279	88,384	62,135
Stockholders' equity and non-controlling interest	66,868	41,465	48,633	47,124	36,102

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

### Restatement Of Previously Reported Consolidated Financial Statements

We have determined that the incorrect application of generally accepted accounting principles, resulted in material misstatements and a restatement of our consolidated financial statements for the year ended December 31, 2015. The restatement of our financial statements for the year ended December 31, 2015 resulted from improper recognition of revenue under our revenue recognition policy. Specifically, improper revenue recognition resulted from recognition of revenue when collectability was not reasonably assured and the related revenue should have been recognized when the cash was collected. As a result, our consolidated financial statements for the year ended December 31, 2015 contained in our proxy statement filed with the SEC on August 8, 2016 should no longer be relied upon. Refer to Note 1(d) of the Notes to Consolidated Financial Statements for additional information.

### Overview

We are a global provider of network access solutions and communications equipment for service provider and enterprise networks. We research, develop, test, sell, manufacture and support communications equipment in five major areas: broadband access, Ethernet switching, mobile backhaul, POLAN and SDN:

- Our broadband access products offer a variety of solutions for carriers and service providers to connect residential and business customers, either using high-speed fiber or leveraging their existing deployed copper networks to offer broadband services to customer premises. Once our broadband access products are deployed, the service provider can offer voice, high-definition and ultra-high-definition video, high-speed internet access and business class services to their customers. Both DNS and Legacy Zhone were market leaders in the broadband access market prior to the Merger, and the combination of DNS and Legacy Zhone is expected to enhance our leadership position for both carrier and enterprise solutions in this market following the Merger.
- Our Ethernet switching products provide a high-performance and manageable solution that bridges the gap from carrier access technologies to the core network. Our products support pure Ethernet switching as well as layer 3 IP and MPLS capabilities, and are currently being developed for interfacing with SDN. Legacy Zhone did not offer comparable Ethernet switching products prior to the Merger, and therefore the Ethernet switching market is expected to provide an opportunity for growth for the combined company following the Merger.
- Our mobile backhaul products provide a robust, manageable and scalable solution for mobile operators that enable them to upgrade their mobile backhaul systems and migrate from 3G networks to LTE and beyond. Our mobile backhaul products may be collocated at the RAN BS and can aggregate multiple RAN BS in to a single backhaul for delivery of mobile traffic to the RAN network controller. We provide standard Ethernet/IP or MPLS interfaces and

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interoperate with other vendors in these networks. Legacy Zhone did not offer comparable mobile backhaul products prior to the Merger, and therefore the mobile backhaul market is expected to provide an opportunity for growth for the combined company following the Merger.

- Our FiberLAN portfolio of POLAN products are designed for enterprise, campus, hospitality, and entertainment arena usage. Our FiberLAN portfolio includes our high-performance, high-bandwidth GPON OLTs connected to the industry's most diverse ONT product line, which include units with integrated PoE to power a wide range of devices such as our full range of WIFI APs and scalable WIFI AP controller. Our FiberLAN portfolio relates primarily to Legacy Zhone products, while our WIFI access points and controllers consist primarily of DNS products. We expect the combination of Legacy Zhone and DNS products in this market to enhance the functionality of our product offerings and provide an opportunity for growth for the combined company following the Merger.
- Our SDN and NFV tools and building blocks to allow service providers to migrate their networks' full complement of legacy control plane and data plane devices to a centralized intelligent controller that can reconfigure the services of the hundreds of network elements in real time for more controlled and efficient provision of bandwidth and latency across the network. This move to SDN and NFV provides better service for end customers and a more efficient and cost-effective use of hardware resources for service providers. Our SDN and NFV tools reflect the combined experience and technologies of DNS and Legacy Zhone.

As discussed under "Liquidity and Capital Resources" below, the maturing of short-term debt obligations and our recurring losses from operations raise substantial doubt on whether we will be able to continue as a going concern.

As of December 31, 2016, the total outstanding principal amount of our debt obligations was \$24.4 million, consisting of the following:

- \$17.6 million in short-term debt obligations;
- \$6.8 million in long-term debt obligations to related parties.

Our ability to continue as a "going concern" is dependent on many factors, including, among other things, our ability to comply with the covenants in our existing debt agreements, our ability to cure any defaults that occur under our debt agreements or to obtain waivers or forbearances with respect to any such defaults, and our ability to pay, retire, amend, replace or refinance our indebtedness as defaults occur or as interest and principal payments come due.

Going forward, our key financial objectives include the following:

- Increasing revenue while continuing to carefully control costs;
- Continued investments in strategic research and product development activities that will provide the maximum potential return on investment; and
- Minimizing consumption of our cash and cash equivalents.

## **Merger**

On September 9, 2016, we acquired DNS through the merger of a wholly owned subsidiary of Zhone Technologies, Inc. with and into DNS, with DNS surviving as our wholly owned subsidiary. In connection with the Merger, Zhone Technologies, Inc. changed its name to DASAN Zhone Solutions, Inc. Our common stock continues to be traded on the Nasdaq Capital Market, and our ticker symbol was changed from "ZHNE" to "DZSI" effective September 12, 2016.

At the effective time of the Merger, all issued and outstanding shares of capital stock of DNS held by its sole shareholder, DNI, were canceled and converted into the right to receive shares of our common stock in an amount equal to 58% of the issued and outstanding shares of our common stock immediately following the Merger. Accordingly, at the effective time of the Merger, we issued 9,493,016 shares (post reverse stock split) of our common stock to DNI as consideration in the Merger, of which 949,302 shares (post reverse stock split) are being held in escrow as security for claims for indemnifiable losses in accordance with the merger agreement relating to the Merger. As a result, immediately following the effective time of the Merger, DNI held 58% of the outstanding shares of our common stock and the holders of our common stock immediately prior to the Merger retained, in the aggregate, 42% of the outstanding shares of our common stock. See Note 2 to the consolidated financial statements set forth in Part II, Item 8 of this report for additional information regarding the Merger.

## **Items Affecting Comparability of our Financial Results**

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As discussed in Note 2 to the consolidated financial statements set forth in Part II, Item 8 of this report, the Merger has been accounted for as a reverse acquisition under which DNS was considered the accounting acquirer of Legacy Zhone. As such, our financial results for the year ended December 31, 2016 presented in this Annual Report on Form 10-K reflect the operating results of DNS and its consolidated subsidiaries for the period commencing on the first day of the applicable period through September 8, 2016 and the operating results of both DNS and Legacy Zhone and their respective consolidated subsidiaries for the period September 9 through December 31, 2016. Such results are compared to the financial results of DNS and its consolidated subsidiaries for the year ended December 31, 2015. Our balance sheet as of December 31, 2016 included the fair value of the assets and liabilities of Legacy Zhone as of the effective date of the Merger. Those assets include the fair value of acquired intangible assets and goodwill. Due to the foregoing, our financial results for the year ended December 31, 2016 are not comparable to our financial results for prior years. The fourth quarter ended December 31, 2016 was the first quarter in which our financial results reflected a full quarter of operating results for both DNS and Legacy Zhone and their respective consolidated subsidiaries.

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

Management's discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States of America. The preparation of these consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. The policies discussed below are considered by management to be critical because changes in such estimates can materially affect the amount of our reported net income or loss. For all of these policies, management cautions that actual results may differ materially from these estimates under different assumptions or conditions.

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

We recognize revenue when the earnings process is complete. We recognize product revenue upon shipment of product under contractual terms which transfer title to customers upon shipment, under normal credit terms, net of estimated sales returns and allowances at the time of shipment. Revenue is deferred if there are significant post-delivery obligations or if the fees are not fixed or determinable. When significant post-delivery obligations exist, revenue is deferred until such obligations are fulfilled. Our arrangements generally do not have any significant post-delivery obligations. If our arrangements include customer acceptance provisions, revenue is recognized upon obtaining the signed acceptance certificate from the customer, unless we can objectively demonstrate that the delivered products or services meet all the acceptance criteria specified in the arrangement prior to obtaining the signed acceptance. In those instances where revenue is recognized prior to obtaining the signed acceptance certificate, we use successful completion of customer testing as the basis to objectively demonstrate that the delivered products or services meet all the acceptance criteria specified in the arrangement. We also consider historical acceptance experience with the customer, as well as the payment terms specified in the arrangement, when revenue is recognized prior to obtaining the signed acceptance certificate. When collectability is not reasonably assured, revenue is recognized when cash is collected.

We make certain sales to product distributors. These customers are given certain privileges to return a portion of inventory. Return privileges generally allow distributors to return inventory based on a percent of purchases made within a specific period of time. We recognize revenue on sales to distributors that have contractual return rights when the products have been sold by the distributors, unless there is sufficient customer specific sales and sales returns history to support revenue recognition upon shipment. In those instances when revenue is recognized upon shipment to distributors, we use historical rates of return from the distributors to provide for estimated product returns. We accrue for warranty costs, sales returns and other allowances at the time of shipment based on historical experience and expected future costs.

We derive revenue primarily from stand-alone sales of our products. In certain cases, our products are sold along with services, which include education, training, installation, and/or extended warranty services. As such, some of our sales have multiple deliverables. Our products and services qualify as separate units of accounting and are deemed to be non-contingent deliverables as our arrangements typically do not have any significant performance, cancellation, termination and refund type provisions. Products are typically considered delivered upon shipment. Revenue from services is recognized ratably over the period during which the services are to be performed.

For multiple deliverable revenue arrangements, we allocate revenue to products and services using the relative selling price method to recognize revenue when the revenue recognition criteria for each deliverable are met. The selling price of a deliverable is based on a hierarchy and if we are unable to establish vendor-specific objective evidence of selling price (VSOE) we look to third-party evidence of selling price (TPE) and if no such data is available, we use a best estimated selling price (BSP). In most instances, particularly as it relates to products, we are not able to establish VSOE for all deliverables in an arrangement with multiple elements. This may be due to infrequently selling each element separately, not pricing products

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within a narrow range, or only having a limited sales history. When VSOE cannot be established, we attempt to establish the selling price of each element based on TPE. Generally, our marketing strategy differs from that of our peers and our offerings contain a significant level of customization and differentiation such that the comparable pricing of products with similar functionality cannot be obtained. Furthermore, we are unable to reliably determine what similar competitor products' selling prices are on a stand-alone basis. Therefore, we are typically not able to determine TPE for our products.

When we are unable to establish selling price using VSOE or TPE, we use BSP. The objective of BSP is to determine the price at which we would transact a sale if the product or service were sold on a stand-alone basis. The BSP of each deliverable is determined using average discounts from list price from historical sales transactions or cost plus margin approaches based on the factors, including but not limited to our gross margin objectives and pricing practices plus customer and market specific considerations.

We have established TPE for our training, education and installation services. These service arrangements are typically short term in nature and are largely completed shortly after delivery of the product. TPE is determined based on competitor prices for similar deliverables when sold separately. Training and education services are based on a daily rate per person and vary according to the type of class offered. Installation services are based on daily rate per person and vary according to the complexity of the products being installed.

Extended warranty services are priced based on the type of product and are sold in one to five year durations. Extended warranty services include the right to warranty coverage beyond the standard warranty period. In substantially all of the arrangements with multiple deliverables pertaining to arrangements with these services, we have used and intend to continue using VSOE to determine the selling price for the services. We determine VSOE based on our normal pricing practices for these specific services when sold separately.

### ***Allowances for Sales Returns and Doubtful Accounts***

We record an allowance for sales returns for estimated future product returns related to current period product revenue. The allowance for sales returns is recorded as a reduction of revenue and an allowance against our accounts receivable. We base our allowance for sales returns on periodic assessments of historical trends in product return rates and current approved returned products. If the actual future returns were to deviate from the historical data on which the reserve had been established, our future revenue could be adversely affected. We record an allowance for doubtful accounts for estimated losses resulting from the inability of customers to make payments for amounts owed to us. The allowance for doubtful accounts is recorded as a charge to general and administrative expenses. We base our allowance on periodic assessments of our customers' liquidity and financial condition through analysis of information obtained from credit rating agencies, financial statement reviews and historical collection trends. Additional allowances may be required in the future if the liquidity or financial condition of our customers deteriorates, resulting in impairment in their ability to make payments.

### ***Inventories***

Inventories are stated at the lower of cost or market, with cost being determined using the first-in, first-out (FIFO) method. In assessing the net realizable value of inventories, we are required to make judgments as to future demand requirements and compare these with the current or committed inventory levels. Once inventory has been written down to its estimated net realizable value, its carrying value cannot be increased due to subsequent changes in demand forecasts. To the extent that a severe decline in forecasted demand occurs, or we experience a higher incidence of inventory obsolescence due to rapidly changing technology and customer requirements, we may incur significant charges for excess inventory.

### ***Goodwill and Other Acquisition-Related Intangible Assets***

Goodwill and other acquisition-related intangible assets not subject to amortization are tested annually for impairment using a two-step approach, and are tested for impairment more frequently if events and circumstances indicate that the asset might be impaired. An impairment loss is recognized to the extent that the carrying amount exceeds the asset's fair value. In the application of the impairment testing, we are required to make estimates of future operating trends and resulting cash flows and judgments on discount rates and other variables. Actual future results and other assumed variables could differ from these estimates. Our future operating performance will be impacted by the future amortization of intangible assets, potential charges related to purchased in-process research and development for future acquisitions, and potential impairment charges related to goodwill. Accordingly, the allocation of the purchase price of the acquired companies to intangible assets and goodwill has a significant impact on our future operating results. The allocation process requires management to make significant estimates and assumptions, including estimates of future cash flows expected to be generated by the acquired assets and the appropriate discount rate for these cash flows. Should different conditions prevail, we would have to perform an impairment review that might result in material write-downs of intangible assets and/or goodwill. Other factors we consider important which could trigger an impairment review, include, but are not limited to, significant changes in the manner of use of our acquired assets,

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significant changes in the strategy for our overall business or significant negative economic trends. If this evaluation indicates that the value of an intangible asset may be impaired, an assessment of the recoverability of the net carrying value of the asset over its remaining useful life is made. If this assessment indicates that the cost of an intangible asset is not recoverable, based on the estimated undiscounted future cash flows or other comparable market valuations of the entity or technology acquired over the remaining amortization, the net carrying value of the related intangible asset will be reduced to fair value and the remaining amortization period may be adjusted. Due to uncertain market conditions and potential changes in our strategy and product portfolio, it is possible that forecasts used to support our intangible assets may change in the future, which could result in additional non-cash charges that would adversely affect our results of operations and financial condition.

### ***Business Combination***

We allocate the fair value of purchase consideration to the tangible assets acquired, liabilities assumed and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. When determining the fair values of assets acquired and liabilities assumed, management makes significant estimates and assumptions, especially with respect to intangible assets and certain tangible assets such as inventory acquired as part of the Merger.

Critical estimates in valuing certain tangible and intangible assets include but are not limited to future expected cash flows from the underlying assets and discount rates. Management's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates.

### ***Income Tax***

We estimate our income tax provision or benefit in each of the jurisdictions in which we operate, including estimating exposures related to examinations by taxing authorities. We also make judgments regarding the realization of deferred tax assets, and establish valuation allowances where we believe it is more likely than not that future taxable income in certain jurisdictions will be insufficient to realize these deferred tax assets. Our estimates regarding future taxable income and income tax provision or benefit may vary due to changes in market conditions, changes in tax laws, or other factors. If our assumptions, and consequently our estimates, change in the future, the valuation allowances we have established may be increased or decreased, impacting future income tax expense.

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**RESULTS OF OPERATIONS**

We list in the table below the historical consolidated statement of comprehensive income (loss) as a percentage of total net revenue for the periods indicated.

	Year ended December 31,		
	2016	2015	2014
		(As restated)	(As restated)
Net revenue:			
Net revenue	81 %	82 %	78 %
Net revenue - related parties	19 %	18 %	22 %
Total net revenue	100 %	100 %	100 %
Cost of revenue:			
Products and services	56 %	58 %	50 %
Products and services - related parties	16 %	16 %	20 %
Amortization of intangible assets	— %	— %	— %
Total cost of revenue	73 %	74 %	71 %
Gross profit	27 %	26 %	29 %
Operating expenses:			
Research and product development	17 %	15 %	16 %
Selling, marketing, general and administrative	18 %	13 %	11 %
Amortization of intangible assets	1 %	— %	— %
Gain from sale of assets	— %	— %	— %
Total operating expenses	36 %	28 %	27 %
Operating income (loss)	(9)%	(2)%	2 %
Interest income	0 %	0 %	0 %
Interest expense	(1)%	0 %	0 %
Other income (expense), net	0 %	0 %	0 %
Income (loss) before income taxes	(9)%	(2)%	2 %
Income tax provision	1 %	0 %	1 %
Net income (loss)	(10)%	(2)%	1 %
Net loss attributable to non-controlling interest	0 %	0 %	0 %
Net income (loss) attributable to DASAN Zhone Solutions, Inc.	(10)%	(2)%	1 %
Foreign currency translation adjustments	(1)%	(2)%	(1)%
Comprehensive loss	(11)%	(4)%	— %
Comprehensive income attributable to non-controlling interest	— %	— %	— %
Comprehensive loss attributable to DASAN Zhone Solutions, Inc.	(11)%	(4)%	— %

**2016 COMPARED WITH 2015**

**Net Revenue**

Prior to the Merger, DNS provided communications equipment primarily in the Asia-Pacific region, providing products and services to some of the largest carriers in the region with a particular focus on Korea, Japan and Vietnam. DNS typically generated approximately 85% of its net revenue from the Asia-Pacific region prior to the Merger. In contrast, Legacy Zhone typically generated less than 5% of its net revenue from the Asia-Pacific region prior to the Merger, with instead the majority of its net revenue derived from the Americas and the EMEA region. Given DNS' pre-Merger market share in Korea and in the Asia-Pacific region, we expect that net revenue from Korea and elsewhere in the Asia-Pacific region will continue to be significant for the combined company following the Merger, with growth opportunities for the combined company to expand sales of legacy DNS products in the geographic regions where Legacy Zhone had a strong presence.

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Information about our net revenue for products and services for 2016 and 2015 is summarized below (in millions):

	2016	2015	Increase (Decrease)	% change
		(As restated)		
Products	\$ 142.2	\$ 133.0	\$ 9.2	7%
Services	8.1	6.2	1.9	31%
	<u>\$ 150.3</u>	<u>\$ 139.2</u>	<u>\$ 11.1</u>	<u>8%</u>

Information about our net revenue for North America and international markets for 2016 and 2015 is summarized below (in millions):

	2016	2015	Increase (Decrease)	% change
		(As restated)		
Revenue by geography:				
United States	\$ 16.9	\$ 4.4	\$ 12.5	284 %
Canada	2.0	—	2.0	N/A
Total North America	<u>18.9</u>	<u>4.4</u>	<u>14.5</u>	<u>330 %</u>
Latin America	9.6	2.5	7.1	284 %
Europe, Middle East, Africa	13.6	9.4	4.2	45 %
Korea	77.9	114.7	(36.8)	(32)%
Other Asia Pacific	30.3	8.2	22.1	270 %
Total International	<u>131.4</u>	<u>134.8</u>	<u>(3.4)</u>	<u>(3)%</u>
Total	<u>\$ 150.3</u>	<u>\$ 139.2</u>	<u>\$ 11.1</u>	<u>8 %</u>

Net revenue increased 8% or \$11.1 million to \$150.3 million for 2016 compared to \$139.2 million for 2015. The increase in net revenue was primarily due to the consummation of the Merger in September 2016, which resulted in the inclusion of net revenue from the Legacy Zhone business in 2016 for the period from and after the consummation of the Merger. This increase was partially offset by a decrease in product revenue resulting from the decrease in sales to certain customers in Korea.

International net revenue decreased 3% or \$3.4 million to \$131.4 million for 2016 compared to \$134.8 million for 2015, and represented 87% of total net revenue compared with 97% in 2015. The decrease in international net revenue was primarily due to a decrease in sales to certain customers in Korea, which resulted in a decrease in net revenue from Korea of 32% or \$36.8 million compared to the prior year period. This decrease was partially offset by the consummation of the Merger in September 2016, which resulted in the inclusion of international net revenue from the Legacy Zhone business in 2016 for the period from and after the consummation of the Merger, primarily relating to sales in Latin America, Europe and the Middle East. Net revenue from North America increased 330% or \$14.5 million to \$18.9 million in 2016 compared to \$4.4 million in 2015. This increase was primarily due to the consummation of the Merger in September 2016, which resulted in the inclusion of net revenue related to the Legacy Zhone business in North America in 2016 for the period from and after the consummation of the Merger.

For the year ended December 31, 2016, three customers represented 16%, 14% and 10% of net revenue, respectively. For the year ended December 31, 2015, four customers represented 26%, 21%, 17% (a related-party) and 10% of net revenue, respectively.

We anticipate that our results of operations in any given period may depend to a large extent on sales to a small number of large accounts. As a result, our revenue for any quarter may be subject to significant volatility based upon changes in orders from one or a small number of key customers.

### Cost of Revenue and Gross Profit

Total cost of revenue increased 6% or \$6.0 million to \$109.4 million for 2016, compared to \$103.3 million for 2015. The increase in cost of revenue was primarily due to the consummation of the Merger in September 2016, which resulted in the inclusion of cost of revenue related to the Legacy Zhone business in 2016 for the period from and after the consummation of the Merger. This increase was partially offset by lower cost of revenue resulting from decreased sales in Korea in 2016.

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compared to the prior year period. Total cost of revenue was 73% of net revenue for 2016 , compared to 74% of net revenue for 2015 , which resulted in an increase in gross profit percentage from 26% in 2015 to 27% in 2016 . Gross margin slightly increased in 2016 compared to 2015, primarily due to the inclusion of Legacy Zhone's higher margin business following the consummation of the Merger in September 2016.

We expect that in the future our cost of revenue as a percentage of net revenue will vary depending on the mix and average selling prices of products sold, with longer term gross margin expansion expected to come from product cost reductions and manufacturing economies of scale resulting from the Merger. In addition, continued competitive and economic pressures could cause us to reduce our prices, adjust the carrying values of our inventory, or record inventory expenses relating to discontinued products and excess or obsolete inventory.

### **Research and Product Development Expenses**

Research and product development expenses increased 19% or \$4.1 million to \$25.4 million for 2016 compared to \$21.3 million for 2015 . The increase was primarily due to the consummation of the Merger in September 2016, which resulted in the inclusion of \$5.1 million in research and product development expense relating to the Legacy Zhone business in 2016 for the period from and after the consummation of the Merger. This increase was partially offset by a decrease during the period prior to the Merger in research and product development expenses of \$0.8 million resulting from lower personnel related expenses due to a lower headcount. We intend to continue to invest in research and product development to attain our strategic product development objectives while seeking to manage the associated costs through expense controls.

### **Selling, Marketing, General and Administrative Expenses**

Selling, marketing, general and administrative expenses increased 56% or \$9.8 million to \$27.3 million for 2016 compared to \$17.5 million for 2015 . The increase was primarily due to the consummation of the Merger in September 2016, which resulted in the inclusion of \$10.7 million in selling, marketing, general and administrative expense relating to the Legacy Zhone business in 2016 for the period from and after the consummation of the Merger. This increase was partially offset by a decrease during the period prior to the Merger of sales expenses of \$2.6 million due primarily to higher bad debt expenses in 2015 and reduced commission expenses in 2016. We expect selling, marketing, general and administrative expenses to increase in 2017, primarily driven by an increase in sales commission expense resulting from expected additional sales opportunities primarily related to the combined company's mobile backhaul and FiberLAN POLAN products.

### **Gain from Sale of Assets**

We recorded a gain from sale of certain intellectual property of \$0.3 million in December of 2016.

### **Interest Expense, net**

Interest expense, net for 2016 and 2015 was \$ 0.6 million and \$ 0.4 million , respectively. This increase was primarily related to an increase in our outstanding debt balance from \$21.8 million at December 31, 2015 to \$24.4 million at December 31, 2016. Interest rates remained flat during 2016 and 2015.

### **Other Income (Expense), net**

Other expense, net for 2016 was \$0.1 million compared to other income, net for 2015 of \$0.3 million . The expense recorded in 2016 was primarily related to an increase in guarantee expenses of \$0.4 million offset by a gain of \$0.3 million related to common area maintenance reimbursement.

### **Income Tax Provision**

We recorded an income tax provision of \$1.5 million and \$0.2 million related to foreign and state taxes for the years ended December 31, 2016 and 2015 , respectively. The increase in tax expense for the year ended December 31, 2016 was primarily due to an additional valuation allowance recorded on deferred tax assets in Korea. Due to our recurring operating losses and the significant uncertainty regarding the realization of our net deferred tax assets, we have recorded a full valuation allowance against our deferred tax assets.

## **2015 COMPARED WITH 2014**

### **Net Revenue**

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Information about our net revenue for products and services for 2015 and 2014 is summarized below (in millions):

	2015	2014	Increase (Decrease)	% change
	(As restated)	(As restated)		
Products	\$ 133.0	\$ 132.3	\$ 0.7	1 %
Services	6.2	7.1	(0.9)	(13)%
	<u>\$ 139.2</u>	<u>\$ 139.4</u>	<u>\$ (0.2)</u>	<u>— %</u>

Information about our net revenue for North America and international markets for 2015 and 2014 is summarized below (in millions):

	2015	2014	Increase (Decrease)	% change
	(As restated)	(As restated)		
Revenue by geography:				
United States	\$ 4.4	\$ 12.5	\$ (8.1)	(65)%
Canada	—	—	—	— %
Total North America	4.4	12.5	(8.1)	(65)%
Latin America	2.5	1.3	1.2	92 %
Europe, Middle East, Africa	9.4	20.9	(11.5)	(55)%
Korea	114.7	99.6	15.1	15 %
Other Asia Pacific	8.2	5.1	3.1	61 %
Total International	134.8	126.9	7.9	6 %
Total	<u>\$ 139.2</u>	<u>\$ 139.4</u>	<u>\$ (0.2)</u>	<u>— %</u>

Net revenue remained flat at \$139.2 million for 2015 compared to \$139.4 million for 2014. Product revenue increased 1% or \$0.7 million for 2015. The increase in product revenue was primarily due to increased sales in Korea, partially offset by decreased sales in Europe, Middle East and Africa. Service revenue decreased 13% or \$ 0.9 million for 2015. Service revenue represents revenue from maintenance and other services associated with product shipments.

International net revenue increased 6% or \$ 7.9 million to \$ 134.8 million in 2015 and represented 97% of total net revenue compared with 91% in 2014. The increase in international net revenue was primarily due to increased sales in Korea as a result of recent growth in demand for our products in these regions, which was partially offset by lower revenue from Europe, Middle East and Africa. Net revenue from North America decreased 65% or \$ 8.1 million to \$ 4.4 million in 2015 compared to \$ 12.5 million in 2014.

For the year ended December 31, 2015, three customers represented 26%, 21% and 10% of net revenue, respectively. For the year ended December 31, 2014, three customers represented 17%, 14% and 12% of net revenue, respectively.

### **Cost of Revenue and Gross Profit**

Total cost of revenue increased 4.8% or \$4.8 million to \$ 103.3 million for 2015, compared to \$ 98.6 million for 2014. The increase in cost of revenue for 2015 was primarily due to changes in product mix. Total cost of revenue was 74% of net revenue for 2015, compared to 71% of net revenue for 2014, which resulted in a decrease in gross profit percentage from 29% in 2014 to 26% in 2015.

### **Research and Product Development Expenses**

Research and product development expenses decreased 6% or \$ 1.5 million to \$ 21.3 million for 2015 compared to \$ 22.8 million for 2014. The decrease was primarily due to lower personnel-related expenses.

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### **Selling, Marketing, General and Administrative Expenses**

Selling, marketing, general and administrative expenses increased 18% or \$2.7 million to \$17.5 million for 2015 compared to \$14.8 million for 2014. The increase in selling, marketing, general and administrative expenses was primarily attributable to increased bad debt expense and increased expenses to related parties for shared human resources, treasury and other administrative services.

### **Interest Expense, net**

Interest expense, net was \$ 0.4 million for 2015, compared to \$ 0.1 million for 2014. Our outstanding debt balance decreased from \$ 23.1 million at December 31, 2014 to \$ 21.8 million at December 31, 2015 and interest rates remained low during 2015 and 2014.

### **Income Tax Provision**

We recorded an income tax provision of \$ 0.2 million and \$ 1.4 million related to foreign and state taxes for the years ended December 31, 2015 and 2014, respectively. Due to our recurring operating losses and the significant uncertainty regarding the realization of our net deferred tax assets we have continued to record a full valuation allowance.

### **OTHER PERFORMANCE MEASURES**

In managing our business and assessing our financial performance, we supplement the information provided by our GAAP results with adjusted earnings before stock-based compensation, interest, taxes, and depreciation, or Adjusted EBITDA, a non-GAAP financial measure. We define Adjusted EBITDA as net income (loss) plus (i) interest expense, net, (ii) provision (benefit) for taxes, (iii) depreciation and amortization, (iv) stock-based compensation, and (v) material non-recurring transactions or events, such as Merger transaction costs or a gain (loss) on sale of assets or impairment of fixed assets. We believe that the presentation of Adjusted EBITDA enhances the usefulness of our financial information by presenting a measure that management uses internally to monitor and evaluate our operating performance and to evaluate the effectiveness of our business strategies. We believe Adjusted EBITDA also assists investors and analysts in comparing our performance across reporting periods on a consistent basis because it excludes the impact of items that we do not believe reflect our core operating performance.

Adjusted EBITDA has limitations as an analytical tool. Some of these limitations are:

- Adjusted EBITDA does not reflect our cash expenditures, or future requirements for capital expenditures or contractual requirements;
- Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not reflect the interest expense, or the cash requirements necessary to service interest or principal payments, on our debts;
- Although depreciation and amortization are non-cash expenses, the assets being depreciated and amortized will often have to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements;
- Non-cash compensation is and will remain a key element of our overall long-term incentive compensation package, although we exclude it as an expense when evaluating our ongoing operating performance for a particular period; and
- Other companies in our industry may calculate Adjusted EBITDA and similar measures differently than we do, limiting its usefulness as a comparative measure.

Because of these limitations, Adjusted EBITDA should not be considered in isolation or as a substitute for net income (loss) or any other performance measures calculated in accordance with GAAP or as a measure of liquidity. Management understands these limitations and compensates for these limitations by relying primarily on our GAAP results and using Adjusted EBITDA only supplementally.

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Set forth below is a reconciliation of net income (loss) to Adjusted EBITDA, which we consider to be the most directly comparable GAAP financial measure to Adjusted EBITDA (in thousands):

	Year Ended December 31,		
	2016	2015	2014
		(As restated)	
Net income (loss)	\$ (15,328)	\$ (3,339)	\$ 1,837
Add:			
Interest expense, net	647	396	108
Income tax provision	1,487	232	1,380
Depreciation and amortization	3,173	1,404	1,936
Stock-based compensation	336	—	—
Merger transaction costs	1,273	—	—
Adjusted EBITDA	\$ (8,412)	\$ (1,307)	\$ 5,261

## LIQUIDITY AND CAPITAL RESOURCES

Our operations are financed through a combination of our existing cash, cash equivalents, available credit facilities, and sales of equity and debt instruments, based on our operating requirements and market conditions.

At December 31, 2016, cash and cash equivalents were \$17.9 million compared to \$9.1 million at December 31, 2015. Our cash and cash equivalents as of December 31, 2016 included \$9.8 million in cash balances held by our Korean subsidiary. The increase in cash and cash equivalents of \$8.8 million was attributable to net cash provided by operating activities, financing activities and investing activities of \$3.5 million, \$2.8 million and \$2.7 million, respectively.

### *Ability to Continue as a Going Concern*

The accompanying consolidated financial statements have been prepared in conformity with GAAP, assuming we will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. Accordingly, the consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the possible inability of DZS to continue as a going concern.

We have incurred significant losses to date and our losses from operations may continue. We incurred net losses of \$15.3 million and \$3.3 million for the years ended December 31, 2016 and 2015, respectively. We had accumulated deficit of \$19.9 million and working capital of \$56.8 million as of December 31, 2016. As of December 31, 2016, we had approximately \$17.9 million in cash and cash equivalents, which included \$9.8 million in cash balances held by our Korean subsidiary, and \$24.4 million in aggregate principal amount of outstanding borrowings under our short-term debt obligations and our loans from DNI. In addition, we had \$4.2 million in aggregate borrowing availability under our revolving credit facilities as of December 31, 2016. We had \$14.6 million committed as security for letters of credit under these facilities as of December 31, 2016. Due to the amount of short-term debt obligations maturing within the next 12 months and our recurring operating losses, our cash resources may not be sufficient to settle these short-term debt obligations. Our ability to continue as a "going concern" is dependent on many factors, including, among other things, our ability to comply with the covenants in our existing debt agreements, our ability to cure any defaults that occur under our debt agreements or to obtain waivers or forbearances with respect to any such defaults, and our ability to pay, retire, amend, replace or refinance our indebtedness as defaults occur or as interest and principal payments come due. Although the process of amending, replacing or refinancing our short-term debt obligations is ongoing and we are in active discussions with multiple parties, there is no guarantee that they will result in transactions that are sufficient to provide us with the required liquidity to remove the substantial doubt as to our ability to continue as a going concern. If we are unable to amend, replace, refinance our short-term debt obligations or raise the capital needed to meet liquidity needs and finance capital expenditures and working capital, we may experience material adverse impacts on our business, operating results and financial condition.

We have continued our focus on cost control and operating efficiency along with restrictions on discretionary spending, however in order to meet our liquidity needs and finance our capital expenditures and working capital needs for our business, we may be required to sell assets, issue debt or equity securities, purchase credit insurance or borrow on potentially unfavorable terms. In addition, we may be required to reduce the scope of our planned product development, reduce sales and marketing

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efforts and reduce our operations in low margin regions, including reductions in headcount. Based on our current plans and business conditions, we believe that our focused operating expense discipline along with our existing cash, cash equivalents and available credit facilities will be sufficient to satisfy our anticipated cash requirements for at least the next 12 months, however the factors discussed above raise substantial doubt about our ability to continue as a going concern.

### ***Operating Activities***

For fiscal year 2016, net cash provided by operating activities consisted of a net loss of \$15.3 million, adjusted for non-cash expenses totaling \$ 4.7 million and a net decrease in operating assets totaling \$ 14.1 million. The most significant components of the changes in net operating assets were an increase in accounts receivable of \$2.1 million, an increase in accounts payable of \$4.5 million and an increase in accrued and other liabilities of \$9.8 million. The increase in accounts receivable was related to the timing of cash collections. The increase in accounts payable and accrued and other liabilities was primarily due to timing of payments.

For fiscal year 2015, net cash provided by operating activities consisted of a net loss of \$3.3 million, adjusted for non-cash expenses totaling less than \$0.1 million and a net increase in operating assets totaling \$7.6 million. The most significant components of the changes in net operating assets were a decrease in accounts receivable of \$11.4 million and a decrease in inventory of \$6.0 million, partially offset by a decrease in accounts payables of \$6.7 million. The increase in accounts receivable was related to the timing of cash collections. The decrease in inventory was primarily due to better utilization of inventory in 2015. The decrease in accounts payable was primarily due to timing of payments.

### ***Investing Activities***

For fiscal year 2016, net cash provided by investing activities consisted of cash acquired through the consummation of the Merger of \$7.0 million, partially offset by an increase in restricted cash of \$2.1 million and the acquisition of property and equipment of \$1.3 million.

For fiscal year 2015, net cash provided by investing activities consisted of net proceeds from disposal of property and equipment and other assets of \$2.2 million, partially offset by purchases of short-term investments of \$1.9 million.

### ***Financing Activities***

For fiscal year 2016, net cash provided by financing activities consisted of proceeds from short-term borrowings of \$25.1 million and proceeds from long-term borrowings of \$5.0 million, offset by repayments of short-term borrowings of \$27.3 million.

For fiscal year 2015, net cash used in financing activities consisted repayments of short-term borrowings of \$17.8 million and decrease in other capital of \$3.0 million, offset by proceeds from short-term borrowings of \$18.0 million and proceeds of issuance of common stock of \$1.8 million.

### **Cash Management**

Our primary source of liquidity comes from our cash and cash equivalents, which totaled \$17.9 million at December 31, 2016, as well as our credit facilities, under which we had aggregate borrowing availability of \$4.2 million as of December 31, 2016, and under which \$14.6 million was committed as security for letters of credit as of December 31, 2016. Our cash and cash equivalents as of December 31, 2016 included \$9.8 million in cash balances held by our Korean subsidiary.

#### ***Wells Fargo Bank Facility***

As of December 31, 2016, we had a \$25.0 million revolving line of credit and letter of credit facility with Wells Fargo Bank (WFB). Under the WFB Facility, we have the option of borrowing funds at agreed upon interest rates. The amount that we are able to borrow under the WFB Facility varies based on eligible accounts receivable and inventory, as defined in the WFB Facility, as long as the aggregate amount outstanding does not exceed \$25.0 million less the amount committed as security for letters of credit. To maintain availability of funds under the WFB Facility, we pay a commitment fee on the unused portion. The commitment fee is 0.25% per annum and is recorded as interest expense.

As of December 31, 2016, we had no outstanding borrowings under our WFB Facility, and \$3.5 million was committed as security for letters of credit. We had \$3.1 million of borrowing availability under the WFB Facility as of December 31, 2016. The amounts borrowed under the WFB Facility bear interest, payable monthly, at a floating rate equal to the three-month LIBOR plus a margin based on our average excess availability (as calculated under the WFB Facility). The interest rate on the WFB Facility was 3.50% at December 31, 2016. The maturity date under the WFB Facility is March 31, 2019.

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Our obligations under the WFB Facility are secured by substantially all of our personal property assets and those of our subsidiaries that guarantee the WFB Facility, including our intellectual property. The WFB Facility contains certain financial covenants, and customary affirmative covenants and negative covenants. If we default under the WFB Facility due to a covenant breach or otherwise, WFB may be entitled to, among other things, require the immediate repayment of all outstanding amounts and sell our assets to satisfy the obligations under the WFB Facility. In the past we have violated the covenants in our former revolving line of credit and letter of credit facility and received waivers for these violations. On July 3, 2017, we executed an agreement with WFB to extend the due date for delivery for our audited financial statements for the year ended December 31, 2016 to September 27, 2017. As of December 31, 2016, we were in compliance with the covenants under the WFB Facility. We make no assurances that we will be in compliance with these covenants in the future.

### ***Bank and Trade Facilities - Foreign Operations***

Certain of our foreign subsidiaries have entered into various financing arrangements with foreign banks and other lending institutions consisting primarily of revolving lines of credit, trade facilities, term loans and export development loans. These facilities are renewed on an annual basis and are generally secured by a security interest in certain assets of the applicable foreign subsidiaries. Payments under such facilities are made in accordance with the given lender's amortization schedules. As of December 31, 2016 and December 31, 2015, we had an aggregate outstanding balance of \$17.6 million and \$21.8 million, respectively, under such financing arrangements, and the interest rate per annum applicable to outstanding borrowings under these financing arrangements as of December 31, 2016 and December 31, 2015 ranged from 1.92% to 4.08% and 2.04% to 3.55%, respectively.

### ***Related-Party Debt***

In connection with the Merger, on September 9, 2016, we entered into a loan agreement with DNI for a \$5.0 million unsecured subordinated term loan facility. Under the loan agreement, we were permitted to request drawdowns of one or more term loans in an aggregate principal amount not to exceed \$5.0 million. As of December 31, 2016, \$5.0 million in term loans was outstanding under the facility. Such term loans mature in September 2021 and are pre-payable at any time by us without premium or penalty. The interest rate as of December 31, 2016 under this facility was 4.6% per annum.

In addition, we borrowed \$1.8 million from DNI for capital investment in February 2016, which amount was outstanding as of December 31, 2016. This loan matured in March 2017 with an option of renewal by mutual agreement, and bore interest at a rate of 6.9% per annum, payable annually. Effective February 27, 2017, we amended the terms of this loan to extend the repayment date from March 2017 to March 2018 and to reduce the interest rate from 6.9% to 4.6% per annum.

On June 23, 2017, we borrowed \$3.5 million from Solueta, an affiliate of DNI, which amount was outstanding as of June 30, 2017. This loan matures in November 2017 and bears interest at a rate of 4.6% per annum, payable monthly.

### ***Future Requirements and Funding Sources***

Our fixed commitments for cash expenditures consist primarily of payments under operating leases, inventory purchase commitments, and payments of principal and interest for debt obligations.

From time to time, we may provide or commit to extend credit or credit support to our customers. This financing may include extending the terms for product payments to customers. Any extension of financing to our customers will limit the capital that we have available for other uses.

Our accounts receivable, while not considered a primary source of liquidity, represent a concentration of credit risk because a significant portion of the accounts receivable balance at any point in time typically consists of a relatively small number of customer account balances. As of December 31, 2016, two customers, accounted for 12% (a related-party) and 10% of net accounts receivable, respectively, and receivables from customers in countries other than the United States represented 87% of net accounts receivable. We do not currently have any material commitments for capital expenditures, or any other material commitments aside from operating leases for our facilities, inventory purchase commitments and debt.

As discussed above in "Ability to Continue as a Going Concern", there is substantial doubt about our ability to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that might be necessary if we are unable to continue as a going concern.

### ***Contractual Commitments and Off-Balance Sheet Arrangements***

At December 31, 2016, our future contractual commitments by fiscal year were as follows (in thousands):

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	Payments due by period						
	Total	2017	2018	2019	2020	2121	Thereafter
Operating leases	\$ 21,420	\$ 3,633	\$ 2,916	\$ 2,335	\$ 2,192	\$ 2,178	\$ 8,166
Purchase commitments	10,327	6,441	1,398	1,382	1,106	—	—
Short-term debt	17,599	17,599	—	—	—	—	—
Related-party debt	6,800	—	1,800	—	—	—	5,000
Total future contractual commitments	\$ 56,146	\$ 27,673	\$ 6,114	\$ 3,717	\$ 3,298	\$ 2,178	\$ 13,166

**Operating Leases**

The operating lease amounts shown above represent primarily off-balance sheet arrangements. For operating lease commitments, a liability is generally not recorded on our balance sheet unless the facility represents an excess facility for which an estimate of the facility exit costs has been recorded on our balance sheet, net of estimated sublease income. For operating leases that include contractual commitments for operating expenses and maintenance, estimates of such amounts are included based on current rates. Payments made under operating leases will be treated as rent expense for the facilities currently being utilized.

**Purchase Commitments**

The purchase commitments shown above represent non-cancellable inventory purchase commitments as of December 31, 2016 .

On July 16, 2017, we reached an agreement with a supplier to cancel a purchase arrangement for certain inventory which was committed to through 2020. Under the settlement, we are no longer required to fulfill our commitment to purchase \$4.3 million in inventory. In connection with the settlement, we also entered into a technical support services arrangement with the supplier through April 30, 2021.

**Short-term Debt**

The short-term debt obligations have been recorded as liabilities on our balance sheet, and comprise of \$17.6 million in outstanding borrowings under the credit facilities of our foreign subsidiaries. The short-term debt obligation amount shown above represents scheduled principal repayments, but not the associated interest payments which may vary based on changes in market interest rates. At December 31, 2016 , the interest rate per annum applicable to outstanding borrowings under the trade facilities of our foreign subsidiaries ranged from 1.92% to 4.08%. See above under “Cash Management” for further information about these facilities.

**Related-Party Debt**

As of December 31, 2016, we had borrowed an aggregate of \$6.8 million from DNI. The amounts listed in the table above reflect the amendment in February 2017 to the DNS capital investment loan, which among other matters extended the repayment date of the loan from March 2017. The table does not include the \$3.5 million borrowed from Solueta, an affiliate of DNI, in June 2017. See above under “Cash Management” for further information about our related party debt.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK****Cash and Cash Equivalents**

We consider all cash and highly liquid investments purchased with an original maturity of less than three months to be cash equivalents.

**Concentration of Credit Risk**

Financial instruments which potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents, and accounts receivable. Cash and cash equivalents consist principally of financial deposits and money market accounts. Cash and cash equivalents are principally held with various domestic financial institutions with high credit standing. We perform ongoing credit evaluations of our customers and generally do not require collateral. Allowances are maintained for potential doubtful accounts.

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We anticipate that our results of operations in any given period may depend to a large extent on sales to a small number of large accounts. As a result, our revenue for any quarter may be subject to significant volatility based upon changes in orders from one or a small number of key customers.

For the year ended December 31, 2016, two customers represented 16% and 10% of net revenue, respectively. For the year ended December 31, 2015, three customers represented 26%, 21% and 10% of net revenue, respectively. As of December 31, 2016, two customers accounted for 12% (a related-party) and 10% of net accounts receivable, respectively. As of December 31, 2015, two customers accounted for 22% and 45% (a related-party) of net accounts receivable, respectively. As of December 31, 2016 and 2015, receivables from customers in countries other than the United States represented 87% and 93%, respectively, of net accounts receivable.

### **Interest Rate Risk**

Our exposure to market risk for changes in interest rates relates primarily to our outstanding short-term debt. As of December 31, 2016, our outstanding short-term debt balance was \$17.6 million. Amounts borrowed under the short-term debt bear interest ranging from 1.92% to 4.08% as of December 31, 2016. Assuming the outstanding balance on our variable rate debt remains constant over a year, a 2% increase in the interest rate would decrease pre-tax income and cash flow by approximately \$0.4 million.

### **Foreign Currency Risk**

We transact business in various foreign countries, and a significant portion of our assets is located in Korea. We have sales operations throughout Asia, Europe, the Middle East and Latin America. We are exposed to foreign currency exchange rate risk associated with foreign currency denominated assets and liabilities, primarily intercompany receivables and payables. Accordingly, our operating results are exposed to changes in exchange rates between the U.S. dollar and those currencies. During fiscal years 2016 and 2015, we did not hedge any of our foreign currency exposure.

We have performed a sensitivity analysis as of December 31, 2016 using a modeling technique that measures the impact on the balance sheet arising from a hypothetical 10% adverse movement in the levels of foreign currency exchange rates relative to the U.S. dollar, with all other variables held constant. The sensitivity analysis indicated that a hypothetical 10% adverse movement in foreign currency exchange rates would result in a foreign exchange loss of \$1.7 million at December 31, 2016. This sensitivity analysis assumes a parallel adverse shift in foreign currency exchange rates, which do not always move in the same direction. Actual results may differ materially.

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**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

**DASAN ZHONE SOLUTIONS, INC. AND SUBSIDIARIES**

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No financial statement schedules are required because all the relevant data is included elsewhere in this Annual Report on Form 10-K.

**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Stockholders of DASAN Zhone Solutions, Inc.

In our opinion, the consolidated balance sheets and the related consolidated statements of comprehensive income (loss), of stockholders' equity and non-controlling interest and of cash flows present fairly, in all material respects, the financial position of DASAN Zhone Solutions, Inc. and its subsidiaries as of December 31, 2016 and the results of their operations and their cash flows for the year ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. 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 audit. We conducted our audit of these financial statements 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. An audit 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 audit provides a reasonable basis for our opinion.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1(b) to the consolidated financial statements, the Company has a significant amount of debt that is due within twelve months and experienced recurring losses from operations, which raises substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1(b). The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ PricewaterhouseCoopers LLP

San Jose, California  
September 27, 2017

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Shareholder of  
DASAN Network Solutions, Inc. (formerly, DASAN Network Solutions, Inc.)

In our opinion, the consolidated balance sheet as of December 31, 2015 and the related consolidated statements of comprehensive income(loss), of stockholder's equity and non-controlling interest and of cash flows for each of the two years in the period ended December 31, 2015, present fairly, in all material respects, the financial position of DASAN Zhone Solutions, Inc. (formerly, DASAN Network Solutions, Inc.) and its subsidiaries as of December 31, 2015 and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. 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 of these statements in accordance with the auditing 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. An audit 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.

As discussed in Note 1(d) and Note 13 to the consolidated financial statements, the Company has restated its 2015 and 2014 financial statements to correct errors relating to the timing of revenue recognition, balance sheet misclassifications and the recording of certain related party sales transactions.

As discussed in Note 1(h) to the consolidated financial statements, the Company has retroactively adjusted the financial statements for a one-for-five reverse stock split.

/s/ Samil PricewaterhouseCoopers

Seoul, Korea

July 28, 2016, except for Note 1 (d), Note 1(h) and Note 13 as to which the date is September 27, 2017

## DASAN ZHONE SOLUTIONS, INC. AND SUBSIDIARIES

Consolidated Balance Sheets  
(In thousands, except par value)

	December 31, 2016	December 31, 2015
		(As restated)
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 17,893	\$ 9,095
Restricted cash	6,650	4,764
Short-term investments	993	—
Accounts receivable, net of allowances for sales returns and doubtful accounts of \$1,143 in 2016 and \$868 in 2015		
Trade receivables	38,324	17,712
Related parties	13,311	14,575
Other receivables		
Others	12,068	11,268
Related parties	171	1,742
Current deferred tax assets	—	327
Inventories	31,032	13,976
Prepaid expenses and other current assets	4,131	951
Total current assets	124,573	74,410
Property and equipment, net	6,288	2,251
Goodwill	3,977	693
Intangible assets, net	8,767	3
Non-current deferred tax assets	—	1,058
Other assets	1,842	4,811
Total assets	\$ 145,447	\$ 83,226
<b>Liabilities, Stockholders' Equity and Non-controlling Interest</b>		
Current liabilities:		
Accounts payable		
Others	30,681	14,936
Related parties	430	—
Short-term debt	17,599	21,848
Other payables		
Others	2,040	1,352
Related parties	6,940	133
Deferred revenue	1,901	—
Accrued and other liabilities	8,163	2,982
Total current liabilities	67,754	41,251
Long-term debt - related parties	6,800	—
Deferred revenue	1,674	—
Other long-term liabilities	2,351	510
Total liabilities	78,579	41,761
Commitments and contingencies (Note 14)		
Stockholders' equity and non-controlling interest		
Common stock, authorized 36,000 shares, 16,375 shares and 9,493 shares outstanding as of December 31, 2016 and December 31, 2015 at \$0.001 par value <sup>(1)</sup>	16	9
Additional paid-in capital	89,174	47,680
Other comprehensive loss	(2,815)	(1,765)
Accumulated deficit	(19,923)	(4,597)
Total stockholders' equity	66,452	41,327
Non-controlling interest	416	138
Total stockholders' equity and non-controlling interest	66,868	41,465

Total liabilities, stockholders' equity and non-controlling interest

\$	145,447	\$	83,226
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<sup>(1)</sup> Authorized and outstanding share amounts reflect the one-for-five reverse stock split effected on February 28, 2017.

See accompanying notes to consolidated financial statements.

**DASAN ZHONE SOLUTIONS, INC. AND SUBSIDIARIES**  
**Consolidated Statements of Comprehensive Income (Loss)**  
(In thousands, except per share data)

	Years Ended December 31,		
	2016	2015	2014
		(As restated)	(As restated)
Net revenue:			
Net revenue	\$ 121,670	\$ 114,421	\$ 108,634
Net revenue - related parties	28,634	24,775	30,760
Total net revenue	150,304	139,196	139,394
Cost of revenue:			
Products and services	84,415	81,420	70,361
Products and services - related parties	24,738	21,890	28,191
Amortization of intangible assets	204	—	—
Total cost of revenue	109,357	103,310	98,552
Gross profit	40,947	35,886	40,842
Operating expenses:			
Research and product development	25,396	21,331	22,805
Selling, marketing, general and administrative	27,348	17,528	14,834
Amortization of intangible assets	1,556	4	—
Gain from sale of assets	(304)	—	—
Total operating expenses	53,996	38,863	37,639
Operating income (loss)	(13,049)	(2,977)	3,203
Interest income	183	136	418
Interest expense	(830)	(532)	(526)
Other income (expense), net	(145)	266	122
Income (loss) before income taxes	(13,841)	(3,107)	3,217
Income tax provision	1,487	232	1,380
Net income (loss)	(15,328)	(3,339)	1,837
Net loss attributable to non-controlling interest	(2)	—	—
Net income (loss) attributable to DASAN Zhone Solutions, Inc.	\$ (15,326)	\$ (3,339)	\$ 1,837
Foreign currency translation adjustments			
Foreign currency translation adjustments	(1,047)	(2,790)	(1,997)
Comprehensive loss	(16,375)	(6,129)	(160)
Comprehensive income attributable to non-controlling interest	1	—	—
Comprehensive loss attributable to DASAN Zhone Solutions, Inc.	\$ (16,376)	\$ (6,129)	\$ (160)
Basic and diluted net income (loss) per share attributable to DASAN Zhone Solutions, Inc. <sup>(1)</sup>			
Basic and diluted net income (loss) per share attributable to DASAN Zhone Solutions, Inc. <sup>(1)</sup>	\$ (1.32)	\$ (0.36)	\$ 0.20
Weighted average shares outstanding used to compute basic and diluted net income (loss) per share <sup>(1)</sup>	11,637	9,314	9,199

<sup>(1)</sup> All per share and weighted average share amounts have been adjusted to retroactively reflect the one-for-five reverse stock split effected on February 28, 2017.

See accompanying notes to consolidated financial statements.

**DASAN ZHONE SOLUTIONS, INC. AND SUBSIDIARIES**  
**Consolidated Statements of Stockholders' Equity and Non-controlling Interest**  
**Years ended December 31, 2016, 2015 and 2014**  
**(In thousands)**

	Common stock		Additional paid-in capital	Other comprehensive income (loss)	Accumulated deficit	Total stockholders' equity	Non-controlling interest	Total stockholders' equity and non-controlling interest
	Shares	Amount						
Balances as of December 31, 2013	9,173	\$ 9	\$ 47,188	\$ 3,022	\$ (3,095)	\$ 47,124	\$ —	\$ 47,124
Issuance of common stock	48	—	1,800	—	—	1,800	—	1,800
Increase in parent company investment	—	—	(131)	—	—	(131)	—	(131)
Net income	—	—	—	—	1,837	1,837	—	1,837
Other comprehensive loss	—	—	—	(1,997)	—	(1,997)	—	(1,997)
Balances as of December 31, 2014	9,221	9	48,857	1,025	(1,258)	48,633	—	48,633
Issuance of common stock	272	—	1,800	—	—	1,800	—	1,800
Net increase in parent company investment	—	—	(2,977)	—	—	(2,977)	—	(2,977)
Net loss	—	—	—	—	(3,339)	(3,339)	—	(3,339)
Other comprehensive loss	—	—	—	(2,790)	—	(2,790)	—	(2,790)
Acquisition of controlling interest	—	—	—	—	—	—	138	138
Balances as of December 31, 2015 (As restated)	9,493	9	47,680	(1,765)	(4,597)	41,327	138	41,465
Stock-based compensation	8	—	336	—	—	336	—	336
Shares of Legacy Zhone stock as of September 8, 2016 acquired through business combination	6,874	7	41,435	—	—	41,442	—	41,442
Net loss	—	—	—	—	(15,326)	(15,326)	(2)	(15,328)
Other comprehensive income (loss)	—	—	—	(1,050)	—	(1,050)	3	(1,047)
Acquisition of additional interest	—	—	(277)	—	—	(277)	277	—
Balances as of December 31, 2016	16,375	\$ 16	\$ 89,174	\$ (2,815)	\$ (19,923)	\$ 66,452	\$ 416	\$ 66,868

Share amounts reflect the one-for-five reverse stock split effected on February 28, 2017. See Note 1(g) for information on reverse stock split.

See accompanying notes to consolidated financial statements.

## DASAN ZHONG SOLUTIONS, INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows  
(In thousands)

	Years Ended December 31,		
	2016	2015	2014
		(As restated)	(As restated)
Cash flows from operating activities:			
Net income (loss)	\$ (15,328)	\$ (3,339)	\$ 1,837
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization	3,173	1,404	1,936
Gain from sale of assets	(304)	—	—
Stock-based compensation	336	—	—
Unrealized gain on foreign currency transactions	62	(1,301)	(2,066)
Deferred taxes	1,408	(86)	(432)
Changes in operating assets and liabilities:			
Accounts receivable	(2,092)	11,442	(16,554)
Inventories	(1,080)	6,026	(4,792)
Prepaid expenses and other current assets	3,074	196	(9,412)
Accounts payable	4,488	(6,676)	8,432
Accrued expenses	9,759	(3,415)	1,541
Net cash provided by (used in) operating activities	3,496	4,251	(19,510)
Cash flows from investing activities:			
Cash acquired through the Merger	7,013	—	—
(Increase) decrease in restricted cash	(2,128)	1,479	278
Decrease in short-term and long-term loans to others	516	88	209
Increase in short-term and long-term loans to others	(214)	(446)	—
Proceeds from disposal of property and equipment and other assets	10	2,230	2,678
Purchases of short-term investments	(1,034)	(1,856)	(1,899)
Purchases of property and equipment	(1,311)	(794)	(1,137)
Purchases of intangible assets	(61)	—	—
Payment for purchase of shares of HandySoft, net of cash acquired	—	(548)	—
Net cash provided by (used in) investing activities	2,791	153	129
Cash flows from financing activities:			
Repayments of borrowings	(27,336)	(17,796)	(31,384)
Proceeds from short-term borrowings	25,069	17,950	38,349
Proceeds from long-term borrowings - related party	5,000	—	—
Government grants received	—	217	156
Proceeds from issuance of common stock	—	1,800	1,800
Decrease in other capital	—	(2,977)	(131)
Net cash provided by (used in) financing activities	2,733	(806)	8,790
Effect of exchange rate changes on cash	(222)	(510)	(256)
Net increase (decrease) in cash and cash equivalents	8,798	3,088	(10,847)
Cash and cash equivalents at beginning of period	9,095	6,007	16,854
Cash and cash equivalents at end of period	\$ 17,893	\$ 9,095	\$ 6,007
Supplemental disclosure of cash flow information:			
Shares of the Company's common stock held in escrow	949	—	—
Cash paid during the period for:			
Interest	\$ 663	\$ 570	\$ 474
Income taxes	353	1,496	2,430

See accompanying notes to consolidated financial statements.



**DASAN ZHONE SOLUTIONS, INC. AND SUBSIDIARIES**

**Notes to Consolidated Financial Statements**

**(1) Organization and Summary of Significant Accounting Policies**

**(a) Description of Business**

DASAN Zhone Solutions, Inc. (formerly known as Zhone Technologies, Inc. and referred to, collectively with its subsidiaries, as "DZS" or the "Company") is a global provider of network access solutions and communications equipment for service provider and enterprise networks. The Company provides a wide array of reliable, cost-effective networking technologies, including broadband access, Ethernet switching, mobile backhaul, Passive Optical LAN and software-defined networks, to a diverse customer base that includes more than 1,000 customers in more than 50 countries worldwide.

DZS was incorporated under the laws of the state of Delaware in June 1999. On September 9, 2016, the Company acquired Dasan Network Solutions, Inc. ("DNS") through the merger of a wholly owned subsidiary of the Company with and into DNS, with DNS surviving as a wholly owned subsidiary of the Company (the "Merger"). At the effective time of the Merger, all issued and outstanding shares of capital stock of DNS held by DASAN Networks, Inc. ("DNI") were canceled and converted into the right to receive shares of the Company's common stock in an amount equal to 58% of the issued and outstanding shares of the Company's common stock immediately following the Merger. In connection with the Merger, the Company changed its name from Zhone Technologies, Inc. to DASAN Zhone Solutions, Inc. For periods through September 8, 2016, Zhone Technologies, Inc. is referred to as "Legacy Zhone." The Company's common stock continues to be traded on the Nasdaq Capital Market, and the Company's ticker symbol was changed from "ZHNE" to "DZSI" effective September 12, 2016. The Company is headquartered in Oakland, California.

**(b) Going Concern**

The accompanying consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States ("U.S. GAAP"), assuming the Company will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. Accordingly, the consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the possible inability of the Company to continue as a going concern.

The Company has incurred significant losses to date and losses from operations may continue. The Company incurred net losses of \$15.3 million and \$3.3 million for the years ended December 31, 2016 and 2015, respectively. The Company had accumulated deficit of \$19.9 million and working capital of \$56.8 million as of December 31, 2016. As of December 31, 2016, the Company had approximately \$17.9 million in cash and cash equivalents, which included \$9.8 million in cash balances held by the Company's Korean subsidiary, and \$24.4 million in aggregate principal amount of outstanding borrowings under the Company's short-term debt obligations and the Company's loans from DNI. In addition, the Company had \$4.2 million in aggregate borrowing availability under its revolving credit facilities as of December 31, 2016. The Company had \$14.6 million committed as security for letters of credit under these facilities as of December 31, 2016. Due to the amount of short-term debt obligations maturing within the next 12 months and the Company's recurring operating losses, the Company's cash resources may not be sufficient to settle these debt obligations. The Company's ability to continue as a "going concern" is dependent on many factors, including, among other things, its ability to comply with the covenants in its existing debt agreements, its ability to cure any defaults that occur under its debt agreements or to obtain waivers or forbearances with respect to any such defaults, and its ability to pay, retire, amend, replace or refinance its indebtedness as defaults occur or as interest and principal payments come due. Although the process of amending, replacing or refinancing the Company's short-term debt obligations is ongoing and the Company is in active discussions with multiple parties, there is no guarantee that they will result in transactions that are sufficient to provide the Company with the required liquidity to remove the substantial doubt as to its ability to continue as a going concern. If the Company is unable to amend, replace, refinance its debt obligations or raise the capital needed to meet liquidity needs and finance capital expenditures and working capital, the Company may experience material adverse impacts on its business, operating results and financial condition.

The Company has continued its focus on cost control and operating efficiency along with restrictions on discretionary spending, however in order to meet the Company's liquidity needs and finance the Company's capital expenditures and working capital needs for its business, the Company may be required to sell assets, issue debt or equity securities, purchase credit insurance or borrow on potentially unfavorable terms. In addition, the Company may be required to reduce the scope of its planned product development, reduce sales and marketing efforts and reduce its operations in low margin regions, including reductions in headcount. Based on the Company's current plans and business conditions, the Company believes that its focused operating

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expense discipline along with its existing cash, cash equivalents and available credit facilities will be sufficient to satisfy its anticipated cash requirements for at least the next 12 months, however the factors discussed above raise substantial doubt about the Company's ability to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that may result from the outcome of the uncertainties set forth above.

### *(c) Risks and Uncertainties*

As result of the Merger, DNI owned approximately 58% of the outstanding shares of the Company's common stock as of December 31, 2016. Thereafter, for so long as DNI and its affiliates hold shares of the Company's common stock representing at least a majority of the votes, DNI will be able to freely nominate and elect all the members of the Company's board of directors. The directors elected by DNI will have the authority to make decisions affecting the Company's capital structure, including the issuance of additional capital stock or options, the incurrence of additional indebtedness, the implementation of stock repurchase programs, and the declaration of dividends. The interests of DNI may not coincide with the interests of the Company's other stockholders or with holders of the Company's indebtedness. DNI's ability to control all matters submitted to the Company's stockholders for approval limits the ability of other stockholders to influence corporate matters and, as a result, the Company may take actions that the Company's other stockholders or holders of our indebtedness do not view as beneficial. See Note 2, Note 13 and Note 14 to the consolidated financial statements for additional information.

As discussed above in Note 1(b), there is also substantial doubt about the Company's ability to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

### *(d) Restatement of Previously Reported Consolidated Financial Statements*

The Company identified errors related to the timing of revenue recognition and the classification of certain related party revenue, related party cost of revenue and related royalty fees in the consolidated financial statements for the year ended December 31, 2015 and December 31, 2014. In addition, the restatement includes corrections of certain other balance sheet misclassifications. The Company has concluded that these errors were material to the consolidated financial statements for the year ended December 31, 2015 and December 31, 2014, and have restated those periods in this filing.

The following schedules reconcile the amounts as previously reported in the consolidated financial statements for the year ended December 31, 2015 and December 31, 2014 to the corresponding restated amounts (in thousands, except per share data):

#### **Consolidated Balance Sheet**

	December 31, 2015		
	As Previously Reported	Restatement Adjustments	As Restated
Cash and cash equivalents <sup>(1)</sup>	\$ 10,015	\$ (920)	\$ 9,095
Restricted cash <sup>(1)</sup>	3,844	920	4,764
Accounts receivable - Trade	27,084	(9,372)	17,712
Accounts receivable - Related Party	5,644	8,931	14,575
Inventories	13,900	76	13,976
Total current assets	74,775	(365)	74,410
Total assets	83,591	(365)	83,226
Other comprehensive loss <sup>(1)</sup>	(1,775)	10	(1,765)
Accumulated deficit	(4,222)	(375)	(4,597)
Total stockholders' equity	41,692	(365)	41,327
Total liabilities and stockholders' equity and non-controlling interest	83,591	(365)	83,226

<sup>(1)</sup> The misclassification error related to restricted cash as of December 31, 2015.

**Consolidated Statement of Comprehensive Loss**

	December 31, 2015		
	As Previously Reported	Restatement Adjustments	As Restated
Net revenue	\$ 127,890	\$ (13,469)	\$ 114,421
Net revenue - Related Party <sup>(1)</sup>	12,135	12,640	24,775
Total revenue	140,025	(829)	139,196
Cost of revenue	92,664	(11,244)	81,420
Cost of revenue - Related Party	10,722	11,168	21,890
Total cost of revenue	103,386	(76)	103,310
Gross Profit	36,639	(753)	35,886
Selling, marketing, general and administrative expense <sup>(1)</sup>	17,919	(391)	17,528
Operating income (loss)	(2,615)	(362)	(2,977)
Other income (expense), net	279	(13)	266
Income (loss) before income taxes	(2,732)	(375)	(3,107)
Net loss	(2,964)	(375)	(3,339)
Comprehensive loss	(5,764)	(365)	(6,129)
Basic and diluted net loss per share	(0.32)	(0.04)	(0.36)

**Consolidated Statement of Comprehensive Loss**

	December 31, 2014		
	As Previously Reported	Restatement Adjustments	As Restated
Net revenue	\$ 124,648	\$ (16,014)	\$ 108,634
Net revenue - Related Party <sup>(1)</sup>	15,226	15,534	30,760
Total revenue	139,874	(480)	139,394
Cost of revenue	84,598	(14,237)	70,361
Cost of revenue - Related Party	13,954	14,237	28,191
Total cost of revenue	98,552	—	98,552
Gross Profit	41,322	(480)	40,842
Selling, marketing, general and administrative expense <sup>(1)</sup>	15,314	(480)	14,834

<sup>(1)</sup> As discussed in Note 13, the Company did not appropriately classify certain brand royalty fee of \$0.4 million and \$0.5 million as a reduction of revenue for the years ended December 31, 2015 and December 31, 2014.

**Consolidated Statement of Cash Flows**

	December 31, 2015		
	As Previously Reported	Restatement Adjustments	As Restated
Net cash provided by (used in) operating activities <sup>(1)</sup>	\$ 4,261	\$ (10)	\$ 4,251
Net cash provided by (used in) investing activities <sup>(1)</sup>	294	(141)	153

<sup>(1)</sup> The Company did not appropriately classify restricted cash of \$0.9 million separately from cash and cash equivalents as of December 31, 2015.

**Consolidated Statement of Cash Flows**

	December 31, 2014		
	As Previously Reported	Restatement Adjustments	As Restated
Net cash provided by (used in) investing activities <sup>(1)</sup>	908	(779)	129

<sup>(1)</sup> The Company did not appropriately classify restricted cash of \$0.8 million separately from cash and cash equivalents as of December 31, 2014

The disclosures in these notes to consolidated financial statements include schedules reconciling the amounts previously reported to the corresponding restated amounts in their respective sections.

***(e) Basis of Presentation***

The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States and include the accounts of the Company, its wholly-owned subsidiaries and a subsidiary in which it has a controlling interest. All inter-company transactions and balances have been eliminated in consolidation.

As discussed more fully in Note 2, on September 9, 2016, the acquisition of DNS was consummated through the Merger of a wholly owned subsidiary of the Company with and into DNS, with DNS surviving as a wholly owned subsidiary of the Company.

At the effective time of the Merger, all issued and outstanding shares of capital stock of DNS held by DNI were canceled and converted into the right to receive shares of the Company's common stock in an amount equal to 58% of the issued and outstanding shares of the Company's common stock immediately following the Merger. As a result, immediately following the effective time of the Merger, DNI held 58% of the outstanding shares of the Company's common stock and the holders of the Company's common stock immediately prior to the Merger retained, in the aggregate, 42% of the outstanding shares of the Company's common stock.

The Merger has been accounted for as a reverse acquisition under which DNS was considered the accounting acquirer of the Company. As such, the consolidated financial results of the Company for the year ended December 31, 2016 presented in the consolidated financial statements reflect the operating results of DNS and its consolidated subsidiaries for the period commencing on the first day of the applicable period through September 8, 2016 and the operating results of both DNS and Legacy Zhone and their respective consolidated subsidiaries for the period September 9 through December 31, 2016. The balance sheet of the Company as of December 31, 2016 includes the fair value of the assets and liabilities of Legacy Zhone as of the effective date of the Merger. Those assets include the fair value of acquired intangible assets and goodwill. Due to the foregoing, the Company's financial results for the year ended December 31, 2016 are not comparable to its financial results for prior years.

Except as otherwise specifically noted herein, all references to the "Company" refer to (i) DNS and its consolidated subsidiaries for periods through September 8, 2016 and (ii) the Company and its consolidated subsidiaries for periods on or after September 9, 2016.

***(f) Consolidated Subsidiaries***

Details of the Company's consolidated subsidiaries as of December 31, 2016 and December 31, 2015 are as follows:

	Location	Percentage of ownership (%)	
		December 31, 2016	December 31, 2015
Dasan Network Solutions, Inc. (U.S. subsidiary)	US	100%	100%
Dasan Network Solutions, Inc. (Korean subsidiary)	Korea	100%	100%
DASAN Network Solutions Japan Co., Ltd. (formerly: HandySoft Japan Co., Ltd.)	Japan	69.06%	50.25%
DASAN Vietnam Co., Ltd	Vietnam	100%	N/A

***(g) Use of Estimates***

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The preparation of the consolidated financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ materially from those estimates.

### ***(h) Reverse Stock Split***

On February 28, 2017, the Company filed a Certificate of Amendment with the Delaware Secretary of State to amend the Company's Restated Certificate of Incorporation, which amendment effected a one-for-five reverse stock split of the Company's common stock and reduced the authorized shares of the Company's common stock from 180 million to 36 million. As a result of the reverse stock split, the number of shares of the Company's common stock then issued and outstanding was reduced from approximately 81.9 million to approximately 16.4 million. References to shares of the Company's common stock, stock options (and associated exercise price) and restricted stock units in this Annual Report on Form 10-K are provided on a post-reverse stock split basis.

### ***(i) Revenue Recognition***

The Company recognizes revenue when the earnings process is complete. The Company recognizes product revenue upon shipment of product under contractual terms which transfer title to customers upon shipment, under normal credit terms, net of estimated sales returns and allowances at the time of shipment. Revenue is deferred if there are significant post-delivery obligations or if the fees are not fixed or determinable. When significant post-delivery obligations exist, revenue is deferred until such obligations are fulfilled. The Company's arrangements generally do not have any significant post-delivery obligations. If the Company's arrangements include customer acceptance provisions, revenue is recognized upon obtaining the signed acceptance certificate from the customer, unless the Company can objectively demonstrate that the delivered products or services meet all the acceptance criteria specified in the arrangement prior to obtaining the signed acceptance. In those instances where revenue is recognized prior to obtaining the signed acceptance certificate, the Company uses successful completion of customer testing as the basis to objectively demonstrate that the delivered products or services meet all the acceptance criteria specified in the arrangement. The Company also considers historical acceptance experience with the customer, as well as the payment terms specified in the arrangement, when revenue is recognized prior to obtaining the signed acceptance certificate. When collectability is not reasonably assured, revenue is recognized when cash is collected.

The Company makes certain sales to product distributors. These customers are given certain privileges to return a portion of inventory. Return privileges generally allow distributors to return inventory based on a percent of purchases made within a specific period of time. The Company recognizes revenue on sales to distributors that have contractual return rights when the products have been sold by the distributors, unless there is sufficient customer specific sales and sales returns history to support revenue recognition upon shipment. In those instances when revenue is recognized upon shipment to distributors, the Company uses historical rates of return from the distributors to provide for estimated product returns.

The Company derives revenue primarily from stand-alone sales of its products. In certain cases, the Company's products are sold along with services, which include education, training, installation, and/or extended warranty services. As such, some of the Company's sales have multiple deliverables. The Company's products and services qualify as separate units of accounting and are deemed to be non-contingent deliverables as the Company's arrangements typically do not have any significant performance, cancellation, termination and refund type provisions. Products are typically considered delivered upon shipment. Revenue from services is recognized ratably over the period during which the services are to be performed.

For multiple deliverable revenue arrangements, the Company allocates revenue to products and services using the relative selling price method to recognize revenue when the revenue recognition criteria for each deliverable are met. The selling price of a deliverable is based on a hierarchy and if the Company is unable to establish vendor-specific objective evidence of selling price ("VSOE") it uses third-party evidence of selling price ("TPE"), and if no such data is available, it uses a best estimated selling price ("BSP"). In most instances, particularly as it relates to products, the Company is not able to establish VSOE for all deliverables in an arrangement with multiple elements. This may be due to infrequently selling each element separately, not pricing products within a narrow range, or only having a limited sales history. When VSOE cannot be established, the Company attempts to establish the selling price of each element based on TPE. Generally, the Company's marketing strategy differs from that of the Company's peers and the Company's offerings contain a significant level of customization and differentiation such that the comparable pricing of products with similar functionality cannot be obtained. Furthermore, the Company is unable to reliably determine what similar competitor products' selling prices are on a stand-alone basis. Therefore, the Company is typically not able to determine TPE for the Company's products.

When the Company is unable to establish selling price using VSOE or TPE, the Company uses BSP. The objective of BSP is to determine the price at which the Company would transact a sale if the product or service were sold on a stand-alone basis. The

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BSP of each deliverable is determined using average discounts from list price from historical sales transactions or cost plus margin approaches based on the factors, including but not limited to, the Company's gross margin objectives and pricing practices plus customer and market specific considerations.

The Company has established TPE for its training, education and installation services. TPE is determined based on competitor prices for similar deliverables when sold separately. These service arrangements are typically short term in nature and are largely completed shortly after delivery of the product. Training and education services are based on a daily rate per person and vary according to the type of class offered. Installation services are based on daily rate per person and vary according to the complexity of the products being installed.

Extended warranty services are priced based on the type of product and are sold in one to five year durations. Extended warranty services include the right to warranty coverage beyond the standard warranty period. In substantially all of the arrangements with multiple deliverables pertaining to arrangements with these services, the Company has used and intends to continue using VSOE to determine the selling price for the services. The Company determines VSOE based on its normal pricing practices for these specific services when sold separately.

### ***(j) Allowances for Sales Returns and Doubtful Accounts***

The Company records an allowance for sales returns for estimated future product returns related to current period product revenue. The allowance for sales returns is recorded as a reduction of revenue and an allowance against accounts receivable. The Company bases its allowance for sales returns on periodic assessments of historical trends in product return rates and current approved returned products. If the actual future returns were to deviate from the historical data on which the reserve had been established, the Company's future revenue could be adversely affected.

The Company records an allowance for doubtful accounts for estimated losses resulting from the inability of customers to make payments for amounts owed to the Company. The allowance for doubtful accounts is recorded as an expense to general and administrative expenses. The Company bases its allowance on periodic assessments of its customers' liquidity and financial condition through analysis of information obtained from credit rating agencies, financial statement review and historical collection trends. Additional allowances may be required in the future if the liquidity or financial conditions of its customers deteriorate, resulting in impairment in their ability to make payments.

Activity under the Company's allowance for sales returns and doubtful accounts was comprised as follows (in thousands):

	Years ended December 31,		
	2016	2015	2014
Balance at beginning of year	\$ 868	\$ 136	\$ 589
Charged to revenue	466	767	—
Utilization/write offs	(149)	—	(450)
Exchange differences	(42)	(35)	(3)
Balance at end of year	\$ 1,143	\$ 868	\$ 136

The allowance for doubtful accounts was \$0.8 million and \$0.9 million as of December 31, 2016 and 2015, respectively.

### ***(k) Inventories***

Inventories are stated at the lower of cost or market, with cost being determined using the first-in, first-out (FIFO) method. In assessing the net realizable value of inventories, the Company is required to make judgments as to future demand requirements and compare these with the current or committed inventory levels. Once inventory has been written down to its estimated net realizable value, its carrying value cannot be increased due to subsequent changes in demand. To the extent that a severe decline in forecasted demand occurs, or the Company experiences a higher incidence of inventory obsolescence due to rapidly changing technology and customer requirements, the Company may incur significant expenses for excess and obsolete inventory.

***(l) Foreign Currency Translation***

For operations outside the United States, the Company translates assets and liabilities of foreign subsidiaries, whose functional currency is the local currency, at end of period exchange rates. Revenues and expenses are translated at periodic average rates. The adjustment resulting from translating the financial statements of such foreign subsidiaries, is included in accumulated other comprehensive loss, which is reflected as a separate component of stockholders' equity. Gains and losses on foreign currency transactions are included in other income (expense) in the accompanying consolidated statement of comprehensive income (loss).

***(m) Comprehensive Income (Loss)***

There have been no items reclassified out of accumulated other comprehensive income (loss) and into net income (loss). The Company's other comprehensive loss for the years ended December 31, 2016, 2015, and 2014 is comprised of only foreign currency translations.

***(n) Concentration of Risk***

Financial instruments which potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents and accounts receivable. Cash and cash equivalents consist principally of financial deposits and money market accounts. Cash and cash equivalents are principally held with various domestic financial institutions with high credit standing.

The Company's customers include competitive and incumbent local exchange carriers, competitive access providers, Internet service providers, wireless carriers and resellers serving these markets. The Company performs ongoing credit evaluations of its customers and generally does not require collateral. Allowances are maintained for potential doubtful accounts.

For the year ended December 31, 2016, three customers represented 16%, 14% (a related-party) and 10% of net revenue, respectively. For the year ended December 31, 2015, four customers represented 26%, 21%, 17% (a related-party) and 10% of net revenue, respectively. For the year ended December 31, 2014, four customers represented 17%, 14%, 12% and 11% (a related-party) of net revenue, respectively.

The target customers for the Company's products are network service providers that operate voice, data and video communications networks. There are a limited number of potential customers in this target market. The Company expects that a significant portion of the Company's future revenue will depend on sales of its products to a limited number of customers. Any failure of one or more customers to purchase products from the Company for any reason, including any downturn in their businesses, would seriously harm the Company's business, financial condition and results of operations.

As of December 31, 2016, two customers accounted for 13% (a related-party) and 10% of net accounts receivable. As of December 31, 2015, two customers accounted for 45% (a related-party) and 22% of net accounts receivable, respectively. As of December 31, 2016 and December 31, 2015, receivables from customers in countries other than the United States represented 87% and 93%, respectively, of net accounts receivable.

The Company's products are concentrated primarily in the communications equipment market, which is highly competitive and subject to rapid changes. Significant technological changes in the industry could adversely affect operating results. The Company's inventories include components that may be specialized in nature, and subject to rapid technological obsolescence. The Company actively manages inventory levels, and the Company considers technological obsolescence and potential changes in product demand based on macroeconomic conditions when estimating required allowances to reduce recorded inventory amounts to market value. Such estimates could change in the future.

The Company's growth and ability to meet customer demands are also dependent on its ability to obtain timely deliveries of components from suppliers and contract manufacturers. The Company depends on contract manufacturers and sole or limited source suppliers for several key components. If the Company were unable to obtain these components on a timely basis, the Company would be unable to meet its customers' product delivery requirements which could adversely impact operating results. While the Company is not solely dependent on one contract manufacturer, it expects to continue to rely on contract manufacturers to fulfill a portion of its product manufacturing requirements.

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### **(o) Property and Equipment**

Property and equipment are stated at cost, less accumulated depreciation, and are depreciated using the straight-line method over the estimated useful life of each asset. The useful life of each asset is as follows:

<b>Asset Category</b>	<b>Useful Life</b>
Furniture and fixtures	3 to 4 years
Machinery and equipment	3 to 6 years
Computers and software	3 years
Leasehold improvements	Shorter of remaining lease term or estimated useful lives

Upon retirement or sale, the cost and related accumulated depreciation are removed from the balance sheet and the resulting gain or loss is reflected in operating expenses.

### **(p) Long-Lived Assets**

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable based on expected undiscounted cash flows attributable to that asset or asset group. Recoverability of assets to be held and used is measured by comparing the carrying amount of an asset to the future net undiscounted cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future net undiscounted cash flows, an impairment expense is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset. Any assets to be disposed of would be separately presented in the balance sheet and reported at the lower of the carrying amount or fair value less costs to sell, and would no longer be depreciated. The assets and liabilities of a disposed group classified as held for sale would be presented separately in the appropriate asset and liability sections of the balance sheet.

The Company estimates the fair value of its long-lived assets based on a combination of market information primarily obtained from third-party quotes and online markets. In the application of the impairment testing, the Company is required to make estimates of future operating trends and resulting cash flows and judgments on discount rates and other variables. Actual future results and other assumed variables could differ from these estimates. During the years ended December 31, 2016, 2015, and 2014, the Company recorded no impairment expenses related to the impairment of long-lived assets.

### **(q) Goodwill and Other Acquisition-Related Intangible Assets**

Goodwill and other acquisition-related intangible assets not subject to amortization are tested annually for impairment using a two-step approach, and are tested for impairment more frequently if events and circumstances indicate that the asset might be impaired. An impairment loss is recognized to the extent that the carrying amount exceeds the asset's fair value. In the application of the impairment testing, the Company is required to make estimates of future operating trends and resulting cash flows and judgments on discount rates and other variables. Actual future results and other assumed variables could differ from these estimates. The Company's future operating performance will be impacted by the future amortization of intangible assets, potential expenses related to purchased in-process research and development for future acquisitions, and potential impairment expenses related to goodwill. Accordingly, the allocation of the purchase price of the acquired companies to intangible assets and goodwill has a significant impact on the Company's future operating results. The allocation process requires management to make significant estimates and assumptions, including estimates of future cash flows expected to be generated by the acquired assets and the appropriate discount rate for these cash flows. Should different conditions prevail, the Company would have to perform an impairment review that might result in material write-downs of intangible assets and/or goodwill. Other factors the Company considers important which could trigger an impairment review, include, but are not limited to, significant changes in the manner of use of its acquired assets, significant changes in the strategy for our overall business or significant negative economic trends. If this evaluation indicates that the value of an intangible asset may be impaired, an assessment of the recoverability of the net carrying value of the asset over its remaining useful life is made. If this assessment indicates that the cost of an intangible asset is not recoverable, based on the estimated undiscounted future cash flows or other comparable market valuations of the entity or technology acquired over the remaining amortization, the net carrying value of the related intangible asset will be reduced to fair value and the remaining amortization period may be adjusted. Due to uncertain market conditions and potential changes in the Company's strategy and product portfolio, it is possible that forecasts used to support its intangible assets may change in the future, which could result in additional non-cash expenses that would adversely affect its results of operations and financial condition.

***(r) Business Combination***

The Company allocates the fair value of purchase consideration to the tangible assets acquired, liabilities assumed and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. When determining the fair values of assets acquired and liabilities assumed, management makes significant estimates and assumptions, especially with respect to intangible assets and certain tangible assets such as inventory.

Critical estimates in valuing certain tangible and intangible assets include but are not limited to future expected cash flows from the underlying assets and discount rates. Management's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates.

***(s) Stock-Based Compensation***

The Company uses the Black Scholes model to estimate the fair value of options, which is affected by the Company's stock price as well as assumptions regarding a number of complex and subjective variables. These variables include the Company's expected stock price volatility over the term of the awards, actual and projected employee option exercise behaviors, risk-free interest rates and expected dividends. The expected stock price volatility is based on the weighted average of the historical volatility of the Company's common stock over the most recent period commensurate with the estimated expected life of the Company's stock options. The Company based its expected life assumption on its historical experience and on the terms and conditions of the stock awards granted. Risk-free interest rates reflect the yield on zero-coupon U.S. Treasury securities.

The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods in the Company's consolidated statement of comprehensive income (loss). The Company attributes the values of the stock-based compensation to expense using the straight-line method.

Awards of stock options granted to non-employees under the Company's share-based compensation plans are accounted for at fair value determined by using the Black Scholes option pricing model. These options are generally immediately exercisable and expire seven to ten years from the date of grant. Non-employee options subject to vesting are re-valued as they become vested.

***(t) Income Taxes***

The Company uses the asset and liability method to account for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between the financial reporting and the income tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates and laws that will be in effect when the differences are expected to reverse. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized. Based on the cumulative losses incurred, the Company has recorded a full valuation allowance against its net deferred tax assets at December 31, 2016 due to the significant uncertainty regarding whether the deferred tax assets will be realized.

***(u) Net Income (Loss) per Share Attributable to DASAN Zhone Solutions, Inc.***

Basic net income (loss) per share attributable to DASAN Zhone Solutions, Inc. is computed by dividing the net income (loss) attributable to DASAN Zhone Solutions, Inc. for the period by the weighted average number of shares of common stock outstanding during the period. The calculation of diluted net income (loss) per share attributable to DASAN Zhone Solutions, Inc. gives effect to common stock equivalents; however, potential common equivalent shares are excluded if their effect is antidilutive. Potential common equivalent shares are composed of incremental shares of common equivalent shares issuable upon the exercise of stock options.

***(v) Shipping and Handling Costs***

The Company records costs related to shipping and handling in cost of revenue for all periods presented.

***(w) Research and Development Cost***

Costs related to research and development, which primarily consists of labor and benefits, supplies, facilities, consulting, and outside service fees, are expensed as incurred.

**(x) Warranty**

The Company offers a standard warranty for its hardware products of one year, with the option to purchase an extended warranty of up to five years, depending on the product type. The Company recognizes estimated costs related to warranty activities upon product shipment or upon identification of a specific product failure. The Company recognizes estimated warranty costs when it is probable that a liability has been incurred and the amount of loss is reasonably estimable. The estimates are based upon historical and projected product failure and claim rates, historical costs incurred in correcting product failures and information available related to any specifically identified product failures. Significant judgment is required in estimating costs associated with warranty activities and the Company estimates are limited to information available to the Company at the time of such estimates. In some cases, such as when a specific product failure is first identified or a new product is introduced, the Company may initially have limited information and limited historical failure and claim rates upon which to base its estimates, and such estimates may require revision in future periods. The recorded amount is adjusted from time to time for specifically identified warranty exposure.

**(y) Recent Accounting Pronouncements**

On May 28, 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, Revenue from Contracts with Customers, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. The standard permits the use of either the retrospective or cumulative effect transition method. In August 2015, the FASB issued ASU 2015-14, which defers the effective date of the guidance in ASU No. 2014-09, Revenue from Contracts with Customer, for all entities by one year. With the deferral, the new standard is effective for the Company on January 1, 2018. Early adoption is permitted, but not before the original effective date of January 1, 2017. In May 2016, the FASB issued ASU 2016-12, Revenue from Contracts with Customers, Narrow-Scope Improvements and Practical Expedients, which provides clarification on how to assess collectibility, present sales tax, treat noncash consideration, and account for completed and modified contracts at the time of transition of ASU 2014-09. The effective date of this updated guidance for the Company is the same as the effective date of ASU 2014-09, which is January 1, 2018. The Company does not plan to early adopt this guidance. The Company is currently assessing the potential impact of adopting this new guidance on its consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, Simplifying the Measurement of Inventory, which requires an entity to measure inventory at the lower of cost and net realizable value. The guidance does not apply to inventory that is measured using last-in, first-out ("LIFO") or the retail inventory method. The guidance applies to all other inventory, which includes inventory that is measured using first-in, first-out ("FIFO") or average cost. The guidance is effective for the Company on January 1, 2017, and will be adopted accordingly. ASU No. 2015-11 should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The adoption of this standard will have no impact on the Company's consolidated financial statements.

In November 2015, the FASB issued ASU 2015-17, Income Taxes, Balance Sheet Classification of Deferred Taxes, which simplifies the classification of deferred tax assets and liabilities as non-current in the balance sheet. The updated guidance is effective for the Company on January 1, 2017, and will be adopted accordingly. The adoption of this standard will not have a material impact on the Company's consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases. ASU 2016-02 requires that lease arrangements longer than 12 months result in an entity recognizing an asset and liability. The updated guidance is effective for the Company on January 1, 2019, and early adoption is permitted. The Company does not plan to early adopt this guidance. The Company expects its assets and liabilities to increase as a result of the adoption of this standard. The Company is currently assessing the potential impact of adopting this new guidance on its consolidated financial statements. The Company is not able to quantify or cannot reasonably estimate quantitative information related to the impact of the new standard on its consolidated financial statements at this time.

In March 2016, the FASB issued ASU 2016-09, Improvements to Employee Share-Based Payment Accounting, which requires entities to simplify several aspects of the accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities, and classification on statements of cash flows. The guidance is effective for the Company on January 1, 2017, and has been adopted in the first quarter of 2017. The adoption of this standard had no material impact on the Company's consolidated financial statements.

In August 2016, FASB issued ASU 2016-15, Statement of Cash Flows, Classification of Certain Cash Receipts and Cash Payments, which addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice. The updated guidance is effective for the Company on January 1, 2018. Early adoption is permitted. The Company continues to assess all the potential impacts of the new standard and anticipates this standard may have a material impact on its consolidated

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financial statements. The Company is not able to quantify or cannot reasonably estimate quantitative information related to the impact of the new standard on its consolidated financial statements at this time.

In November 2016, FASB issued ASU 2016-18, Statement of Cash Flows, Restricted Cash, which require that a statement of cash flows to explain the change during the period in the total of cash, cash equivalents and amounts generally described as restricted cash and restricted cash equivalents. The updated guidance is effective for the Company beginning on January 1, 2018. Early adoption is permitted. Adoption of this ASU is applied using a retrospective approach. As a result, the Company will no longer present transfers between cash and cash equivalents and restricted cash in the consolidated cash flow statements.

In January 2017, FASB issued ASU 2017-04, Simplifying the Test for Goodwill Impairment, which simplifies the accounting for goodwill impairment. The updated guidance is effective for the Company on January 1, 2020, and will be adopted accordingly. Early adoption is permitted. The Company is currently assessing the potential impact of adopting this new guidance on its consolidated financial statements. The Company is not able to quantify or cannot reasonably estimate quantitative information related to the impact of the new standard on its consolidated financial statements at this time.

In May 2017, the FASB issued ASU No. 2017-09, Compensation—Stock Compensation (Topic 718): Scope of modification accounting. The purpose of the amendment is to clarify which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. The updated guidance is effective for the Company beginning on January 1, 2018. The Company is currently assessing the potential impact of adopting this new guidance on its consolidated financial statements.

## (2) Merger

On September 9, 2016, the Company acquired DNS through the Merger of a wholly owned subsidiary of the Company with and into DNS, with DNS surviving as a wholly owned subsidiary of the Company. The Merger combines leading technology platforms with a broadened customer base.

At the effective time of the Merger, all issued and outstanding shares of capital stock of DNS held by DNI were canceled and converted into the right to receive shares of the Company's common stock in an amount equal to 58% of the issued and outstanding shares of the Company's common stock immediately following the Merger. Accordingly, at the effective time of the Merger, the Company issued 9,493,016 shares (post reverse stock split) of the Company's common stock to DNI as consideration in the Merger, of which 949,302 shares (post reverse stock split) are being held in escrow as security for claims for indemnifiable losses in accordance with the merger agreement relating to the Merger. As a result, immediately following the effective time of the Merger, DNI held 58% of the outstanding shares of the Company's common stock and the holders of the Company's common stock immediately prior to the Merger retained, in the aggregate, 42% of the outstanding shares of the Company's common stock.

As described in Note 1(d), the Company accounted for the Merger as a reverse acquisition under the acquisition method of accounting in accordance with ASC 805, "Business Combination." Consequently, for the purpose of the purchase price allocation ("PPA") DNS' assets and liabilities have been retained at their carrying values and Legacy Zhone's assets acquired, and liabilities assumed, by DNS (as the accounting acquirer in the Merger) have been recorded at their fair value measured as of September 9, 2016.

The total purchase consideration in the Merger is based on the number of shares of Legacy Zhone common stock and Legacy Zhone stock options vested and outstanding immediately prior to the closing of the Merger, and was determined based on the closing price of \$5.95 per share (post reverse stock split) of the Company's common stock on the September 9, 2016. The estimated total purchase consideration is calculated as follows (in thousands):

	Shares	Estimated Fair Value
Shares of Legacy Zhone stock as of September 8, 2016 <sup>(1)</sup>	6,874	\$ 40,902
Legacy Zhone stock options <sup>(1)</sup>	198	540
<b>Total purchase consideration</b>		<b>\$ 41,442</b>

<sup>(1)</sup> Amount presented has been adjusted to reflect the one-for-five reverse stock split effected on February 28, 2017.

The following table summarizes the allocation of the fair value consideration transferred as of the acquisition date (in thousands):

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	Preliminary Fair Value as of September 9, 2016	Correction of Errors <sup>(1)</sup>	Fair Value as of December 31, 2016
Cash and cash equivalents	\$ 7,013	\$ —	\$ 7,013
Accounts receivable	18,847	(337)	18,510
Inventory	16,456	—	16,456
Prepaid expenses and other current assets	2,436	(245)	2,191
Property and equipment	4,339	—	4,339
Other assets	125	—	125
Identifiable intangible assets	10,479	—	10,479
Goodwill	2,820	464	3,284
Accounts payable	(11,021)	—	(11,021)
Accrued and other liabilities	(7,272)	183	(7,089)
Other long-term liabilities	(2,780)	(65)	(2,845)
<b>Total Indicated Fair Value of Assets</b>	<b>\$ 41,442</b>	<b>\$ —</b>	<b>\$ 41,442</b>

<sup>(1)</sup> During the quarter ended December 31, 2016, the Company recorded an out of period adjustment for various errors related to the original preliminary purchase price allocation.

The goodwill was primarily attributed to people, geographic diversification and complementary products. The goodwill arising from the Merger is not tax deductible.

The Company considered the deferred tax liabilities caused by the Merger to be a source of income to support recoverability of acquired deferred tax assets, before considering the recoverability of the acquirer's existing deferred tax assets. Accordingly, the valuation allowance on the acquiree's deferred tax assets was reduced by the deferred tax liabilities caused by the Merger and accounted for as part of the purchase price allocation.

The Company recorded \$1.3 million in Merger related costs during the year ended December 31, 2016. These expenses are included in selling, marketing, general and administrative expense.

The following table presents the fair values of the acquired intangible assets at the effective date of the Merger (in thousands, except years):

	Useful life (in Years)	Fair Value
Developed technology	5	\$ 3,060
Customer relationships	10	5,240
Backlog	1	2,179
		<b>\$ 10,479</b>

The following unaudited pro forma condensed combined financial information for the year ended December 31, 2016 and 2015 gives effect to the Merger as if it had occurred at the beginning of 2015. The unaudited pro forma condensed combined financial information has been included for comparative purposes only and is not necessarily indicative of what the combined Company's financial position or results of operations might have been had the Merger been completed as of the date indicated. In addition, the unaudited pro forma condensed combined financial information does not purport to project the future financial position or results of operations of the combined company. The unaudited pro forma condensed combined financial information reflects adjustments related to the Merger, such as to record certain incremental expenses resulting from purchase accounting adjustments (such as amortization expenses in connection with the fair value adjustments to intangible assets and Merger related costs).

(in thousands)	Years Ended December 31,	
	2016	2015
Pro forma total net revenue	\$ 202,321	\$ 240,342
Pro forma net loss	(29,514)	(11,369)

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For the period from September 9, 2016 (the effective date of the Merger) through December 31, 2016, the Company's income statement included \$29.0 million of net revenues and \$7.6 million of net loss from the Legacy Zhone business.

### (3) Fair Value Measurement

The Company utilizes a fair value hierarchy that is intended to increase consistency and comparability in fair value measurements and related disclosures. The fair value hierarchy is based on inputs to valuation techniques that are used to measure fair value that are either observable or unobservable. Observable inputs reflect assumptions market participants would use in pricing an asset or liability based on market data obtained from independent sources while unobservable inputs reflect a reporting entity's pricing based upon their own market assumptions. The fair value hierarchy consists of the following three levels:

- Level 1 – Inputs are quoted prices in active markets for identical assets or liabilities.
- Level 2 – Inputs are quoted prices for similar assets or liabilities in an active market, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable and market-corroborated inputs which are derived principally from or corroborated by observable market data.
- Level 3 – Inputs are derived from valuation techniques in which one or more significant inputs or value drivers are unobservable.

The following financial instruments are not measured at fair value on the Company's consolidated balance sheet as of December 31, 2016 and 2015, but require disclosure of their fair values: cash and cash equivalents, short-term investments, accounts receivable, accounts payable and debt. The carrying values of financial instruments such as cash and cash equivalents, short-term investments, accounts receivable and accounts payable approximate their fair values based on their short-term nature. The carrying value of the Company's debt approximates their fair values based on the current rates available to the Company for debt of similar terms and maturities.

### (4) Cash and Cash Equivalents and Restricted Cash

As of December 31, 2016 and December 31, 2015, the Company's cash and cash equivalents comprised financial deposits. Restricted cash comprised cash restricted for research and development activities and collateral for borrowings.

### (5) Balance Sheet Detail

Balance sheet detail as of December 31, 2016 and 2015 is as follows (in thousands):

	2016	2015
Inventories:		(As restated)
Raw materials	\$ 13,547	\$ 5,519
Work in process	3,705	2,074
Finished goods	13,780	6,383
	<u>\$ 31,032</u>	<u>\$ 13,976</u>

Inventories provided as collateral for borrowings from Export-Import Bank of Korea amounted to \$14.4 million as of December 31, 2016.

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	2016	2015
Property and equipment, net:		
Furniture and fixtures	\$ 20,040	\$ 20,456
Machinery and equipment	4,530	3,173
Leasehold improvements	3,573	688
Computers and software	411	16
Other	922	438
	<u>29,476</u>	<u>24,771</u>
Less accumulated depreciation and amortization	(22,922)	(22,121)
Less government grants	(266)	(399)
	<u>\$ 6,288</u>	<u>\$ 2,251</u>

Depreciation and amortization expense associated with property and equipment was \$1.3 million , \$1.4 million and \$1.9 million for the years ended December 31, 2016 , 2015 and 2014 , respectively.

The Company receives grants from the government mainly to support capital expenditures. Such grants are deferred and are generally refundable to the extent the Company does not utilize the funds for qualifying expenditures. Once earned, the Company records the grants as a contra amount to the assets and amortizes such amount over the useful lives of the related assets as a reduction to depreciation expense.

	2016	2015
Accrued and other liabilities (in thousands):		
Accrued warranty	\$ 878	\$ 441
Accrued compensation	2,834	—
Other Accrued expenses	4,451	2,541
	<u>\$ 8,163</u>	<u>\$ 2,982</u>

The Company accrues for warranty costs based on historical trends for the expected material and labor costs to provide warranty services. The Company's standard warranty period is one year from the date of shipment with the ability for customers to purchase an extended warranty of up to five years from the date of shipment. The following table summarizes the activity related to the product warranty liability (in thousands):

Balance at December 31, 2013	\$ 312
Charged to cost of revenue	401
Claims and settlements	(324)
Balance at December 31, 2014	<u>389</u>
Charged to cost of revenue	578
Claims and settlements	(526)
Balance at December 31, 2015	<u>441</u>
Balance assumed with the Merger	652
Charged to cost of revenue	717
Claims and settlements	(925)
Foreign exchange impact	(7)
Balance at December 31, 2016	<u>\$ 878</u>

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**(6) Goodwill and Intangible Assets**

Goodwill as of December 31, 2016 and December 31, 2015 was as follows (in thousands):

	December 31, 2016	December 31, 2015
Beginning balance	\$ 693	\$ —
Goodwill from Merger	2,820	693
Correction of errors	464	—
Less: accumulated impairment	—	—
Ending balance	<u>\$ 3,977</u>	<u>\$ 693</u>

The Company did not recognize impairment loss on goodwill during the years ended December 31, 2016, 2015 and 2014.

Intangible assets as of December 31, 2016 and December 31, 2015 were as follows (in thousands):

	December 31, 2016			
	Gross Carrying Amount	Accumulated Amortization	Government Grant	Net
Developed Technology	\$ 3,060	\$ (203)	\$ —	\$ 2,857
Customer Relationships	5,240	(321)	—	4,919
Backlog	2,179	(1,236)	—	943
Other	105	(34)	(23)	48
Total intangible assets, net	<u>\$ 10,584</u>	<u>\$ (1,794)</u>	<u>\$ (23)</u>	<u>\$ 8,767</u>

	December 31, 2015			
	Gross Carrying Amount	Accumulated Amortization	Government Grant	Net
Other	40	(37)	—	3
Total intangible assets, net	<u>40</u>	<u>(37)</u>	<u>—</u>	<u>3</u>

Amortization expense associated with intangible assets for the year ended December 31, 2016 and 2015 amounted to \$1.8 million and \$10.0 thousand, respectively. As of December 31 2016, expected future amortization expense for the years indicated was as follows (in thousands):

Period	Expected Amortization Expense
2017	\$ 2,087
2018	1,145
2019	1,166
2020	1,136
2021	933
Thereafter	2,300
Total	<u>\$ 8,767</u>

**(7) Debt**

***Wells Fargo Bank Facility***

As of December 31, 2016, the Company had a \$25.0 million revolving line of credit and letter of credit facility (the "WFB Facility") with Wells Fargo Bank ("WFB"). Under the WFB Facility, the Company has the option of borrowing funds at agreed upon interest rates. The amount that the Company is able to borrow under the WFB Facility varies based on eligible accounts receivable and inventory, as defined in the agreement, as long as the aggregate amount outstanding does not exceed \$25.0

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million less the amount committed as security for letters of credit. To maintain availability of funds under the WFB Facility, the Company pays a commitment fee on the unused portion. The commitment fee is 0.25% per annum and is recorded as interest expense.

As of December 31, 2016, the Company had no outstanding borrowings under its WFB Facility and \$3.5 million was committed as security for letters of credit. The Company had \$3.1 million of borrowing availability under the WFB Facility as of December 31, 2016. The amounts borrowed under the WFB Facility bear interest, payable monthly, at a floating rate equal to the three-month LIBOR plus a margin based on the Company's average excess availability (as calculated under the WFB Facility). The interest rate on the WFB Facility was 3.50% at December 31, 2016. The maturity date under the WFB Facility is March 31, 2019.

The Company's obligations under the WFB Facility are secured by substantially all of its personal property assets and those of its subsidiaries that guarantee the WFB Facility, including their intellectual property. The WFB Facility contains certain financial covenants, and customary affirmative covenants and negative covenants. If the Company defaults under the WFB Facility due to a covenant breach or otherwise, WFB may be entitled to, among other things, require the immediate repayment of all outstanding amounts and sell the Company's assets to satisfy the obligations under the WFB Facility. On July 3, 2017, the Company executed an agreement with WFB to extend the due date for delivery for the Company's audited financial statements for the year ended December 31, 2016 to September 27, 2017. As of December 31, 2016, the Company was in compliance with the covenants under the WFB Facility.

### **Bank and Trade Facilities - Foreign Operations**

Certain of the Company's foreign subsidiaries have entered into various financing arrangements with foreign banks and other lending institutions consisting primarily of revolving lines of credit, trade facilities, term loans and export development loans. These facilities are renewed on an annual basis and are generally secured by a security interest in certain assets of the applicable foreign subsidiaries. Payments under such facilities are made in accordance with the given lender's amortization schedules.

As of December 31, 2016 and December 31, 2015, the Company had an aggregate outstanding balance of \$17.6 million and \$21.8 million, respectively, under such financing arrangements, and the interest rates per annum applicable to outstanding borrowings under these financing arrangements were as listed in the tables below (in thousands).

		As of December 31, 2016	
		Interest rate (%)	Amount
Industrial Bank of Korea	Credit facility	2.16 - 2.76	\$ 1,106
Shinhan Bank	General loan	4.08	3,310
Shinhan Bank	Trade finance	3.28 - 3.44	1,752
NongHyup Bank	Credit facility	1.92 - 2.66	482
KEB Hana Bank	Comprehensive credit loan	2.79	3,501 *
The Export-Import Bank of Korea	Export development loan	3.10	7,448
			<u>\$ 17,599</u>

\* As of June 30, 2017, this balance owed to KEB Hana Bank had been fully repaid.

		As of December 31, 2015	
		Interest rate (%)	Amount
Industrial Bank of Korea	Credit facility	2.04 - 2.34	\$ 3,431
Shinhan Bank	General loan	2.94	3,413
Shinhan Bank	Trade finance	2.80	329
NongHyup Bank	Credit facility	1.60 - 1.95	1,574
KEB Hana Bank	Comprehensive credit loan	3.55	5,421
The Export-Import Bank of Korea	Export development loan	2.94	7,680
			<u>\$ 21,848</u>

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As of December 31, 2016, the Company had \$1.6 million in outstanding borrowings and \$9.3 million committed as security for letters of credit under the Company's \$12.0 million credit facility with certain foreign banks.

### **(8) Executive Compensation**

On September 9, 2016, in connection with the consummation of the Merger, the Company entered into an amended and restated employment agreement with James Norrod and employment agreements with each of Il Yung Kim and Kirk Misaka, in the respective forms approved by the Board of Directors, each of which superseded their respective existing employment arrangements, and each of which had an initial term of one year, to be automatically extended for additional successive one year terms unless either party elects not to extend the term.

#### **Il Yung Kim**

Under the employment agreement between Il Yung Kim and the Company, Mr. Kim agreed to serve as Co-Chief Executive Officer in exchange for an initial annual base salary of \$320,000, representing a voluntary 20% salary reduction, which was automatically increased to \$400,000 on April 1, 2017. Mr. Kim is also eligible to participate in a performance-based annual bonus program, for which his target bonus is equal to \$400,000. Mr. Kim did not earn and was not paid a bonus for his services in 2016. The Company has reimbursed Mr. Kim for \$30,000 in relocation expenses and provides a monthly housing allowance of up to \$6,000. Mr. Kim is also entitled to an additional \$30,000 in relocation expenses in the event that his employment is terminated. All such relocation expenses provided to Mr. Kim will be grossed up for taxes. Mr. Kim is also eligible to participate in all health benefits, insurance programs, pension and retirement plans and other employee benefit and compensation arrangements generally available to the Company's other officers.

In accordance with the terms of his employment agreement, the Board of Directors granted Mr. Kim a stock option award to purchase 200,000 shares of the Company's common stock under the Company's Amended and Restated 2001 Stock Incentive Plan, as amended, on September 9, 2016. Mr. Kim's options have a 10 year term and vest as to 25% of the shares on the first anniversary of the Merger and thereafter vest in 36 equal monthly installments, subject to his continuing to render services to the Company through the applicable vesting date. The exercise price of the options is \$5.95 per share, adjusted for the subsequent one-for-five reverse stock split of the Company's common stock effected on February 28, 2017.

#### **James Norrod**

Under the amended and restated employment agreement between James Norrod and the Company, Mr. Norrod agreed to serve as Co-Chief Executive Officer in exchange for an initial annual base salary of \$320,000, representing a voluntary 20% salary reduction, which was automatically increased to \$400,000 on April 1, 2017. Mr. Norrod was also eligible to participate in a performance-based annual bonus program, for which his target bonus was equal to \$400,000. Mr. Norrod did not earn and was not paid this bonus in 2016. The Company paid for or reimbursed Mr. Norrod for reasonable lodging expenses while he was working from the Company's principal executive offices. Mr. Norrod was also eligible to participate in all health benefits, insurance programs, pension and retirement plans and other employee benefit and compensation arrangements generally available to the Company's other officers.

In accordance with the terms of his employment agreement, the Board of Directors granted Mr. Norrod a stock option award to purchase 200,000 shares of the Company's common stock under the Company's Amended and Restated 2001 Stock Incentive Plan, as amended, on September 9, 2016. Mr. Norrod's options have a 10 year term and vest in 48 equal monthly installments, subject to his continuing to render services to the Company through the applicable vesting date. The exercise price of the options is \$5.95 per share, adjusted for the subsequent one-for-five reverse stock split of the Company's common stock effected on February 28, 2017.

Additionally, Mr. Norrod was granted a \$1,000,000 cash bonus on completion of the Merger, which was paid in equal installments in October 2016 and January 2017.

#### **Kirk Misaka**

Under the employment agreement between Kirk Misaka and the Company, Mr. Misaka agreed to serve as Chief Financial Officer in exchange for an initial annual base salary of \$292,000, representing a voluntary 20% salary reduction, which was automatically increased to \$365,000 on April 1, 2017. Mr. Misaka was also eligible to participate in a performance-based annual bonus program, for which his target bonus was equal to \$200,000. Mr. Misaka did not earn and was not paid a bonus in 2016. Mr. Misaka was also eligible to participate in all health benefits, insurance programs, pension and retirement plans and other employee benefit and compensation arrangements generally available to the Company's other officers.

In accordance with the terms of his employment agreement, the Board of Directors granted Mr. Misaka a stock option award to purchase 100,000 shares of the Company's common stock under the Company's Amended and Restated 2001 Stock Incentive

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Plan, as amended, on September 9, 2016. Mr. Misaka's options have a 10 year term and vest in 48 equal monthly installments, subject to his continuing to render services to the Company through the applicable vesting date. The exercise price of the options is \$5.95 per share, adjusted for the subsequent one-for-five reverse stock split of the Company's common stock effected on February 28, 2017.

Additionally, Mr. Misaka was granted a \$500,000 cash bonus on completion of the Merger, which was paid in March 2017.

### **(9) Stockholders' Equity**

#### **(a) Overview**

The Company's equity capitalization consisted of 36.0 million authorized shares of common stock, of which 16.4 million were outstanding at December 31, 2016.

#### **(b) Stock-Based Compensation**

Prior to September 9, 2016, the date of the Merger, DNS did not have any stock-based compensation plans. The plan information described below represents stock-based compensation plans that were carried over from Legacy Zhone and were in effect as of December 31, 2016 and an additional stock-based compensation plan adopted by the Company in January 2017. As of December 31, 2016, the Company had one significant stock-based compensation plan related to equity compensation (including equity compensation in the form of stock options, restricted stock and restricted stock units) and employee stock purchases.

The following table summarizes stock-based compensation expense for the year ended December 31, 2016 (in thousands):

	<b>Year ended December 31,</b>	
	<b>2016</b>	
Compensation expense relating to employee stock options, restricted stock units and restricted stock	\$	336

#### **Stock Incentive Plans**

The Company's stock-based compensation plans are designed to attract, motivate, retain and reward employees, directors and consultants and align stockholder and employee interests. As of December 31, 2016, the Company had one active stock incentive plan, the Amended and Restated 2001 Stock Incentive Plan ("2001 Plan"). The 2001 Plan provided for the grant of incentive stock options, non-statutory stock options, restricted stock unit awards, restricted stock awards and other stock-based awards to officers, employees, directors and consultants of the Company. Under the 2001 Plan, options were permitted to be granted at an exercise price less than, equal to or greater than the fair market value on the date of grant, except that any options granted to a 10% stockholder must have an exercise price equal to at least 110% of the fair market value of the Company's common stock on the date of grant. The Board of Directors determined the term of each option, the option exercise price and the vesting terms. Stock options were generally granted at an exercise price equal to the fair market value on the date of grant, expiring seven to ten years from the date of grant and vesting over a period of four years. On January 1 of each year, if the number of shares available for grant under the 2001 Plan was less than 5% of the total number of shares of common stock outstanding as of that date, the shares available for grant under the plan were automatically increased by the amount necessary to make the total number of shares available for grant equal to 5% of the total number of shares of common stock outstanding, or by a lesser amount as determined by the Board of Directors.

As of December 31, 2016, 6,259 shares were available for grant under the 2001 Plan. The 2001 Plan expired in March 2017.

On January 4, 2017, the Board of Directors of the Company approved the DASAN Zhone Solutions, Inc. 2017 Incentive Award Plan (the "2017 Plan"), subject to stockholder approval at the Company's 2017 annual meeting of stockholders. The 2017 Plan authorizes the issuance of stock options, restricted stock, restricted stock units, dividend equivalents, stock payment awards, stock appreciation rights, performance bonus awards and other incentive awards. The 2017 Plan also authorizes the Compensation Committee of the Board to grant performance awards payable in the form of shares of the Company's common stock or cash, including equity awards and incentive cash bonuses that may qualify as "performance-based compensation" under Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"). The 2017 Plan authorizes the grant of awards to employees, non-employee directors and consultants of the Company and its subsidiaries.

The maximum number of shares of the Company's common stock for which grants may be made under the 2017 Plan is the sum of (i) 600,000 shares, plus (ii) any shares subject to awards granted under the Amended and Restated 2001 Stock Incentive Plan to the extent such shares become available for issuance under the 2017 Plan pursuant to its terms, plus (iii) any shares subject to an annual increase on each January 1 during the 10 year term of the 2017 Plan equal to the lesser of 4% of the total

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shares of the Company's common stock outstanding (on an as-converted basis) and such smaller amount as may be determined by the Board of Directors in its sole discretion. In addition, the following annual limitations apply: (i) the maximum aggregate number of shares of the Company's common stock that may be subject to awards granted to any one participant during a calendar year is 4,000,000 shares and (ii) the maximum aggregate amount of cash that may be paid to any one participant during any calendar year with respect to awards initially payable in cash is \$10 million . The number of shares of the Company's common stock that may be issued or transferred pursuant to awards granted under the 2017 Plan shall not exceed an aggregate of 7,000,000 .

On January 4, 2017, the Board of Directors and the Compensation Committee granted an award of 100,000 options to purchase common stock of the Company under the 2017 Plan, subject to stockholder approval of the 2017 Plan, to Il Yung Kim, the Chief Executive Officer of the Company. The options have a ten -year term and an exercise price of \$4.82 per share, adjusted for the subsequent one-for-five reverse stock split of the Company's common stock effected on February 28, 2017. Provided that Mr. Kim continues to render services to the Company through the applicable vesting date, the options vest as to 25% of the shares on the first anniversary of the vesting commencement date and vest as to the remaining shares in 36 equal monthly installments thereafter. Between January 4, 2017 and September 15, 2017, the Company's Board of Directors (or its designee) granted to 55 other employees an aggregate of 262,999 stock options under the 2017 Plan, subject to obtaining stockholder approval of the 2017 Plan, with a weighted average exercise price of \$4.75 . The stock options granted to the Company's employees will vest as to 25% of the shares on the first anniversary of the grant date and as to the remaining shares in 36 equal monthly installments thereafter. If the 2017 Plan is not approved by the Company's stockholders at the 2017 annual meeting, the foregoing stock option awards will be automatically canceled and become null and void. The Company may grant further awards to employees, including executive officers, and consultants under the 2017 Plan prior to the annual meeting in the ordinary course of business, which awards will also be contingent options that are subject to stockholder approval of the 2017 Plan.

The Company has estimated the fair value of stock-based payment awards on the date of grant using the Black Scholes pricing model, which is affected by the Company's stock price as well as assumptions regarding a number of complex and subjective variables. These variables include the Company's expected stock price volatility over the term of the awards, actual and projected employee option exercise behaviors, risk-free interest rate and expected dividends. The estimated expected term of options granted was determined based on historical option exercises. Estimated volatility was based on historical volatility and the risk free interest rate was based on U.S. Treasury yield in effect at the time of grant for the expected life of the options. The Company does not anticipate paying any cash dividends in the foreseeable future and therefore used an expected dividend yield of zero in the option valuation model. The Company is also required to estimate forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. Historical data was used to estimate pre-vesting forfeitures and record stock-based compensation expense only for those awards that are expected to vest.

The assumptions used to value option grants for the year ended December 31, 2016 is as follows:

	<b>Year ended December 31,</b>
	<b>2016</b>
Expected term (years)	4.01 - 6.17
Expected volatility	79.9% - 81.5%
Risk free interest rate	1.14%

The weighted average grant date fair value of options granted during the year ended December 31, 2016 was \$4.08 . There were no exercises of options during the year ended December 31, 2016 .

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The following table sets forth the summary of option activity under the stock option program for the year ended December 31, 2016 (in thousands, except per share data):

	Options Outstanding <sup>(1)</sup>	Weighted Average Exercise Price <sup>(1)</sup>	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding as of December 31, 2015	—	\$ —		
Options assumed as part of the Merger	265	\$ 8.68		
Granted	530	\$ 5.95		
Canceled/Forfeited	(8)	\$ 11.75		
Exercised	—	\$ —		
Outstanding as of December 31, 2016	787	\$ 6.84	8.56	\$ 60
Vested and expected to vest at December 31, 2016	684	\$ 7.01	8.39	\$ 52
Vested and exercisable at December 31, 2016	233	\$ 8.34	5.85	\$ 14

<sup>(1)</sup> Amount presented has been adjusted to reflect the one-for-five reverse stock split effected on February 28, 2017.

The aggregate intrinsic value represents the total pretax intrinsic value, based on the Company's closing stock price as of December 31, 2016 of \$4.90, which would have been received by the option holders had the option holders exercised their options as of that date.

As of December 31, 2016, there was \$2.1 million of unrecognized compensation costs, adjusted for estimated forfeitures which are expected to be recognized over a weighted average period of 2.3 years.

### (10) Net Income (Loss) Per Share

The following table sets forth the computation of basic and diluted net income (loss) per share (in thousands, except per share data):

	Years ended December 31,		
	2016	2015	2014
	(As restated)		
Numerator:			
Net income (loss) attributable to DASAN Zhone Solutions, Inc.	\$ (15,326)	\$ (3,339)	\$ 1,837
Denominator:			
Weighted average number of shares outstanding:			
Basic <sup>(1)</sup>	11,637	9,314	9,199
Effect of dilutive securities:			
Stock options, restricted stock units and share awards	—	—	—
Diluted <sup>(1)</sup>	11,637	9,314	9,199
Net income (loss) per share attributable to DASAN Zhone Solutions Inc.:			
Basic <sup>(1)</sup>	\$ (1.32)	\$ (0.36)	\$ 0.20
Diluted <sup>(1)</sup>	\$ (1.32)	\$ (0.36)	\$ 0.20

<sup>(1)</sup> Amount presented has been adjusted to reflect the one-for-five reverse stock split effected on February 28, 2017.

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The following tables set forth potential common stock that is not included in the diluted net income (loss) per share calculation above because their effect would be anti-dilutive for the periods indicated (in thousands, except exercise price per share data):

	2016	Weighted average option exercise price
Outstanding stock options, restricted stock units and unvested restricted shares	796	\$ 6.84

As of December 31, 2016, 2015 and 2014, no shares of issued common stock subject to repurchase.

### (11) Income Taxes

The following is a summary of the components of income tax expense applicable to loss before income taxes (in thousands):

	Years ended December 31,		
	2016	2015	2014
Current:			
Federal	\$ —	\$ —	\$ —
State	(9)	—	—
Foreign	88	318	1,812
Total current tax expense	\$ 79	\$ 318	\$ 1,812
Deferred:			
Federal	\$ —	\$ —	\$ —
State	—	—	—
Foreign	1,408	(86)	(432)
Total deferred tax expense	\$ 1,408	\$ (86)	\$ (432)
Total tax expense	\$ 1,487	\$ 232	\$ 1,380

A reconciliation of the expected tax expense (benefit) to the actual tax expense is as follows (in thousands):

	Years ended December 31,		
	2016	2015	2014
Expected tax expense (benefit) at statutory rate (e.g. 34%)	\$ (4,644)	\$ (929)	\$ 1,094
State taxes, net of Federal effect	(348)	—	—
Foreign rate differential	391	328	(386)
Valuation allowance	7,004	218	260
Permanent differences	687	40	237
Tax credit carry-forwards	(896)	(674)	—
Tax on accumulated earnings from prior year	29	1,348	—
Tax paid to overseas	71	—	—
Tax expense adjustments after tax return for prior	(837)	—	—
Foreign currency translation	124	—	—
Other	(94)	(99)	175
Total tax expense	\$ 1,487	\$ 232	\$ 1,380

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting and income tax purposes. Significant components of the Company's deferred tax assets and liabilities as of December 31, 2016 and 2015 are as follows (in thousands):

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	2016	2015
Deferred tax assets:		
Net operating loss, capital loss, and tax credit carryforwards	\$ 14,243	\$ 1,907
Reduction of gross deferred tax assets due to built-in loss limitation	(4,402)	—
Fixed assets and intangible assets	3,775	217
Inventory and other reserves	4,573	513
Other	2,661	197
Gross deferred tax assets	20,850	2,834
Less valuation allowance	(20,850)	(1,449)
Total net deferred tax assets	\$ —	\$ 1,385

For the years ended December 31, 2016 and 2015, the net changes in the valuation allowance were an increase of \$19.4 million and \$0.2 million, respectively. The Company recorded a full valuation allowance against the net deferred tax assets at December 31, 2016 since it is more likely than not that the net deferred tax assets will not be realized due to the lack of previously paid taxes and anticipated taxable income.

As of December 31, 2016, the Company had net operating loss carryforwards for federal, state, and foreign income tax purposes of approximately \$29.0 million, \$43.9 million, and \$2.1 million, respectively. The federal losses begin to expire in 2025. The state losses begin to expire in 2017. The foreign losses begin to expire in 2026.

As of December 31, 2016, the Company had research credit carryforwards of approximately \$0.1 million, \$0.1 million, and \$1.2 million for federal, state, and foreign income tax purposes, respectively. If not utilized, the federal carryforward will expire in various amounts beginning in 2036. The state credit can be carried forward indefinitely. If not utilized, the foreign credit carryforward will expire in 2021.

As of December 31, 2016, the Company also had alternative minimum tax credit carryforward for federal income tax purposes of approximately \$0.1 million which are available to reduce future income taxes, if any over an indefinite period.

Pursuant to Sections 382 and 383 of the Code, annual use of the Company's net operating losses and tax credit carryforwards may be limited in the event a cumulative change in ownership of more than 50% occurs within a three-year-period. The Company had an ownership change in September 2016, which resulted in an annual limitation on the amount of net operating losses and tax credit carryforwards which arose prior to that date that the Company can utilize.

In accordance with ASC 740 the Company is required to inventory, evaluate, and measure all uncertain tax positions taken or to be taken on tax returns, and to record liabilities for the amount of such positions that may not be sustained, or may only be partially sustained, upon examination by the relevant taxing authorities. At December 31, 2016, the Company had gross unrecognized tax benefits of \$0.1 million, none of which if recognized, would reduce the effective tax rate in a future period, due to the Company's full valuation allowance.

A reconciliation of the beginning and ending unrecognized tax benefit amounts for 2016 and 2015 are as follows (in thousands):

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Balance at December 31, 2014	\$	—
Increases related to prior year tax positions		—
Decreases related to prior year tax positions		—
Increases related to current year tax positions		—
Settlements		—
Lapse of statute of limitations		—
Balance at December 31, 2015		—
Increases related to prior year tax positions		—
Decreases related to prior year tax positions		—
Increases related to current year tax positions		77
Settlements		—
Lapse of statute of limitations		—
Balance at December 31, 2016	\$	<u>77</u>

It is the Company's policy to account for interest and penalties related to uncertain tax positions as interest expense and general administrative expense, respectively in its statement of operations. The Company did not record any interest and penalty (benefit) expense during the year ended December 31, 2016 and 2015.

The Company or one of its subsidiaries files income tax returns in the U.S. federal jurisdiction, and various state and foreign jurisdictions. The open tax years for the major jurisdictions are as follows:

• Federal	2013 - 2016
• California and Canada	2012 - 2016
• Brazil	2011 - 2016
• Germany	2012 - 2016
• Japan	2011 - 2016
• Korea	2015 - 2016
• United Kingdom	2014 - 2016
• Vietnam	2016

However, due to the fact the Company had net operating losses and credits carried forward in most jurisdictions, certain items attributable to closed years are still subject to adjustment by the relevant taxing authority through an adjustment to tax attributes carried forward to open years.

The Company estimates that its foreign income will generally be subject to taxation in the United States on a current basis and that its foreign subsidiaries and representative offices will therefore not have any material untaxed earnings subject to deferred taxes. In addition, to the extent the Company is deemed to have sufficient connection to a particular taxing jurisdiction to enable that jurisdiction to tax the Company but the Company has not filed an income tax return in that jurisdiction for the year(s) at issue, the jurisdiction would typically be able to assert a tax liability for such years without limitation on the number of years it may examine.

The Company is not currently under examination for income taxes in any material jurisdiction.

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Non-controlling interests were as follows (in thousands)

	Years Ended December 31,	
	2016	2015
Beginning non-controlling interests	\$ 138	\$ —
Acquisition of additional interest in a subsidiary	277	—
Net loss attributable to non-controlling interests	(2)	—
Foreign currency translation adjustments (OCI)	3	—
Acquisition of controlling interest	—	138
Ending non-controlling interests	<u>\$ 416</u>	<u>\$ 138</u>

**(13) Related Party Transactions****Related Party Debt**

In connection with the Merger, on September 9, 2016, the Company entered into a loan agreement with DNI for a \$5.0 million unsecured subordinated term loan facility. Under the loan agreement, the Company was permitted to request drawdowns of one or more term loans in an aggregate principal amount not to exceed \$5.0 million. As of December 31, 2016, \$5.0 million in term loans was outstanding under the facility. Such term loans mature in September 2021 and are pre-payable at any time by the Company without premium or penalty. The interest rate as of December 31, 2016 under this facility was 4.6% per annum.

In addition, the Company borrowed \$1.8 million from DNI for capital investment in February 2016, which amount was outstanding as of December 31, 2016. This loan matured in March 2017 with an option of renewal by mutual agreement, and bore interest at a rate of 6.9% per annum, payable annually. Effective February 27, 2017, the Company amended the terms of this loan to extend the repayment date from March 2017 to March 2018, and to reduce the interest rate from 6.9% to 4.6% per annum.

On June 23, 2017, the Company borrowed \$3.5 million from Solueta, an affiliate of DNI, which amount was outstanding as of June 30, 2017. This loan matures in November 2017 and bears interest at a rate of 4.6% per annum, payable monthly.

**Other Related Party Transactions*****Sales and Purchases to and from Related Parties***

Sales and purchases, cost of revenue, research and product development, selling, marketing, general and administrative and other income and expenses to and from related parties for the years ended December 31, 2016, 2015 and 2014 were as follows (in thousands):

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For the year ended December 31, 2016								
Counterparty	DNI Ownership Interest	Sales	Cost of revenue	Manufacturing (Cost of revenue)	Research and product development	Selling, marketing, general and administrative	Other income	Other expenses
DNI (Parent Company)	N/A	\$ 21,214	\$ 18,173	\$ —	\$ —	\$ 5,079	\$ —	\$ 389
ABLE	61.99%	50	—	—	—	—	—	—
CHASAN Networks Co., Ltd.	100%	—	—	720	149	—	—	—
DASAN France	100%	19	18	—	—	—	—	—
DASAN INDIA Private Limited	100%	2,710	2,080	—	—	—	—	—
DMC	100%	1	1	—	—	—	—	—
D-Mobile	100%	4,431	3,610	—	—	421	—	—
DTS	81.56%	—	—	—	—	—	1	—
HANDYSOFT, Inc.	17.64%	155	136	—	—	—	—	—
J-Mobile Corporation	68.56%	54	—	—	—	634	25	—
PANDA Media, Inc.	90%	—	—	—	—	2	—	1
Tomato Soft (Xi'an) Ltd.	100%	—	—	—	750	—	—	—
		\$ 28,634	\$ 24,018	\$ 720	\$ 899	\$ 6,136	\$ 26	\$ 390

For the year ended December 31, 2015								
Counterparty	DNI Ownership Interest	Sales (1) (2)	Cost of revenue (2)	Manufacturing (Cost of revenue)	Research and product development	Selling, marketing, general and administrative (1)	Other income	Other expenses
		As Restated	As Restated			As Restated		
DNI (Parent Company)	N/A	\$ 23,365	\$ 19,822	\$ —	\$ —	\$ 7,230	\$ 24	\$ 363
CHASAN Networks Co., Ltd.	100%	—	—	731	358	—	—	—
DASAN RND Co., LTD	100%	—	—	—	—	605	—	—
D-Mobile	100%	—	—	—	—	91	—	—
HANDYSOFT, Inc.	17.64%	1,410	1,337	—	—	—	—	184
J-Mobile Corporation	68.56%	—	—	—	—	1,511	15	—
Tomato Soft (Xi'an) Ltd.	100%	—	—	—	631	—	—	—
		\$ 24,775	\$ 21,159	\$ 731	\$ 989	\$ 9,437	\$ 39	\$ 547

For the year ended December 31, 2014								
Counterparty	DNI Ownership Interest	Sales (1) (2)	Cost of revenue (2)	Manufacturing (Cost of revenue)	Research and product development	Selling, marketing, general and administrative (1)	Other income	Other expenses
		As Restated	As Restated			As Restated		
DNI (Parent Company)	N/A	\$ 30,760	\$ 27,353	\$ —	\$ —	\$ 7,098	\$ —	\$ —
CHASAN Networks Co., Ltd.	100%	—	—	838	471	—	—	—
DASAN RND Co., LTD	100%	—	—	—	—	1,214	—	—
J-Mobile Corporation	68.56%	—	—	—	—	766	—	—
Tomato Soft (Xi'an) Ltd.	100%	—	—	—	575	—	—	—
		\$ 30,760	\$ 27,353	\$ 838	\$ 1,046	\$ 9,078	\$ —	\$ —

<sup>(1)</sup> As discussed in Note 1(d), the Company corrected errors in the classification of certain brand royalty fee of \$0.4 million and \$0.5 million which should have been treated as a reduction of revenue for the years ended December 31, 2015 and December 31, 2014.

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(2) The Company corrected errors in the classification of certain revenues of \$13.0 million and \$16.0 million and related party cost of revenue of \$11.1 million and \$14.2 million relating to DNI (Parent Company) which should have been classified as related party revenue and related party cost of revenue for the years ended December 31, 2015 and 2014.

Further, an error in the classification of certain revenues of \$4.8 million, \$4.5 million, and \$0.2 million which should have been classified as related party revenue for the quarters ended March 31, 2016, June 30, 2016, and September 30, 2016 was corrected in the annual results included above for the fiscal year ended December 31, 2016. The Company concluded that the error is not material for the periods impacted but will revise the previously issued consolidated financial statements for this error in future quarterly filings.

The Company has entered into certain sales agreements with DNI and certain of its subsidiaries. Sales and cost of revenue to DNI, DASAN France, DASAN INDIA Private Limited, and D-Mobile represent finished goods produced by the Company that are sold to these related parties who sell the Company's products in Korea, France, India and Taiwan, respectively.

The Company has entered into an agreement with CHASAN Networks Co., Ltd. to provide manufacturing and research and development services for the Company. Under the agreement with CHASAN Networks., Ltd., the Company is charged a cost plus 7% fee for the manufacturing and development of certain deliverables.

The Company has entered into an agreement with Tomato Soft (Xi'an) Ltd. to provide research and development services for the Company. Under the agreement with Tomato Soft (Xi'an) Ltd., the Company is charged an expected annual fee of \$0.8 million for the development of certain deliverables.

Prior to the Merger, as DNS was then a wholly owned subsidiary of DNI, DNI had sales agreements with certain customers on DNS' behalf. Since the Merger, due to these prior sales agreements, the Company has entered into an agreement with DNI in which DNI acts as a sales channel to these customers. Sales to DNI necessary for DNI to fulfill agreements with its customers are recorded net of royalty fees in related party revenue.

The Company shares office space with DNI and certain of DNI's subsidiaries. Prior to the Merger, DNS, then a wholly owned subsidiary of DNI, shared human resources, treasury and other administrative support with DNI. As such, the Company entered into certain service sharing agreements with DNI and certain of its subsidiaries for the shared office space and shared administrative services. Expenses related to rent and administrative services are allocated to the Company based on square footage occupied and headcount, respectively.

Other income from J-Mobile Corporation represents interest income earned on a loan receivable from J-Mobile Corporation. The loan receivable was issued for the amount of \$0.5 million and earned an interest rate of 6.9% per annum. The loan receivable was scheduled to mature on July 1, 2020, but was fully paid off on September 3, 2016.

Other expenses to related parties represent expenses to DNI for its payment guarantees relating to the Company's borrowings. The Company pays DNI a guarantee fee which is calculated as 0.9% of the guaranteed amount.

### ***Balances of Receivables and Payables with Related Parties***

Balances of receivables and payables arising from sales and purchases of goods and services with related parties as of December 31, 2016 and 2015 were as follows (in thousands):

Counterparty	DNI Ownership Interest	As of December 31, 2016					
		Account receivables	Other receivables	Deposits for lease*	Accounts payable	Other payables	Loans
DNI (Parent Company)	N/A	\$ 6,679	\$ 171	\$ 690	\$ 360	\$ 6,861	\$ 6,800
ABLE	61.99%	53	—	9	—	—	—
DASAN France	100%	23	—	—	—	—	—
DASAN INDIA Private Limited	100%	2,606	—	—	—	—	—
D-Mobile	100%	3,943	—	—	—	—	—
HANDYSOFT, Inc.	17.64%	2	—	—	—	—	—
J-Mobile Corporation	68.56%	5	—	—	—	—	—
Tomato Soft Ltd.	100%	—	—	—	—	16	—
Tomato Soft (Xi'an) Ltd.	100%	—	—	—	70	63	—
		<u>\$ 13,311</u>	<u>\$ 171</u>	<u>\$ 699</u>	<u>\$ 430</u>	<u>\$ 6,940</u>	<u>\$ 6,800</u>

As of December 31, 2015

Counterparty	DNI Ownership Interest	Account receivables (As Restated)	Other receivables	Deposits for lease*	Other payables	Loans
DNI (Parent Company)	N/A	\$ 14,553	\$ 1,431	\$ 3,137	\$ —	\$ —
CHASAN Networks Co., Ltd.	100%	—	—	—	62	—
DMC, Inc.	100%	—	1	—	—	—
HANDYSOFT, Inc.	17.64%	22	—	—	—	—
J-Mobile Corporation	68.56%	—	310	—	—	430
Tomato Soft Ltd.	100%	—	—	—	16	—
Tomato Soft (Xi'an) Ltd.	100%	—	—	—	55	—
		\$ 14,575	\$ 1,742	\$ 3,137	\$ 133	\$ 430

\* Included in other assets related to deposits for lease in the consolidated balance sheets as of December 31, 2016 and 2015.

#### (14) Commitments and Contingencies

##### *Operating Leases*

The Company has entered into operating leases for certain office space and equipment, some of which contain renewal options and escalation clauses. Estimated future lease payments under all non-cancelable operating leases with terms in excess of one year, including taxes and service fees, are as follows (in thousands):

Year ending December 31:	Minimum Future Lease Payments
2017	\$ 3,633
2018	2,916
2019	2,335
2020	2,192
2021	2,178
Thereafter	8,166
Total minimum lease payments	\$ 21,420

##### *Performance Bonds*

In the normal course of operations, from time to time, the Company arranges for the issuance of various types of surety bonds, such as bid and performance bonds, which are agreements under which the surety company guarantees that the Company will perform in accordance with contractual or legal obligations. As of December 31, 2016, the Company had \$0.5 million of surety bonds guaranteed by third parties.

##### *Purchase Commitments*

The Company has agreements with various contract manufacturers which include non-cancellable inventory purchase commitments. The Company's inventory purchase commitments typically allow for cancellation of orders 30 days in advance of the required inventory availability date as set by the Company at time of order. The amount of non-cancellable purchase commitments outstanding, net of reserve, was \$10.3 million as of December 31, 2016.

On July 16, 2017, the Company reached an agreement with a supplier to cancel a purchase arrangement for certain inventory which was committed through 2020. Under the settlement, the Company is no longer required to fulfill its commitment to purchase \$4.3 million in inventory. In connection with the settlement, the Company also entered into a technical support services arrangement with the supplier through April 30, 2021.

##### *Payment Guarantees Provided by Third Parties*

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The following table sets forth third parties that have provided payment guarantees of the Company's indebtedness and other obligations as of December 31, 2016 (in thousands):

Guarantor	Amount Guaranteed	Description of Obligations Guaranteed
DNI	\$ 3,972	Borrowings from Shinhan Bank
DNI	1,986	Purchasing card from Shinhan Bank
DNI	4,800	Borrowings from KEB Hana Bank
DNI	11,379	Credit facility and purchasing card from Industrial Bank of Korea
DNI	6,000	Credit facility from NongHyup Bank
DNI	993	Purchasing card from NongHyup Bank
Industrial Bank of Korea	6,881	Credit facility
Industrial Bank of Korea	286	Credit facility (local)
NongHyup Bank	3,678	Credit facility
Shinhan Bank	299	Purchasing card
KEB Hana Bank	59	Performance bonds
State Bank of India	37	Performance bonds
Seoul Guarantee Insurance Co.	403	Performance payment guarantee
	<u>\$ 40,773</u>	

### **Royalties**

The Company has certain royalty commitments associated with the shipment and licensing of certain products. Royalty expense is generally based on a dollar amount per unit shipped or a percentage of the underlying revenue and is recorded in cost of revenue.

### **(15) Litigation**

The Company is subject to various legal proceedings, claims and litigation arising in the ordinary course of business. While the outcome of these matters is currently not determinable, the Company records an accrual for legal contingencies that it has determined to be probable to the extent that the amount of the loss can be reasonably estimated. The Company does not expect that the ultimate costs to resolve these matters will have a material adverse effect on its consolidated financial position or results of operations. However, litigation is subject to inherent uncertainties, and unfavorable rulings could occur. If an unfavorable ruling were to occur, there exists the possibility of a material adverse impact on the results of operations of the period in which the ruling occurs, or future periods.

### **(16) Employee Benefit Plans**

The Company maintains a 401(k) plan for its employees whereby eligible employees may contribute up to a specified percentage of their earnings, on a pretax basis, subject to the maximum amount permitted by the Internal Revenue Code. Under the 401(k) plan, the Company may make discretionary contributions. The 401(k) plan is a Legacy Zhone plan. The Company made no discretionary contributions to the plan in 2016.

The Company also maintains a defined contribution plan for its employees in Korea. Under the defined contribution plan, the Company contributes 8.33% of an employee's gross salary into the plan every quarter.

### **(17) Enterprise-Wide Information**

The Company is a global provider of network access solutions and communications equipment for service provider and enterprise networks. There are no segment managers who are held accountable for operations, operating results and plans for levels or components below the Company unit level. Accordingly, the Company is considered to be in a single reporting segment and operating unit structure. The Company's chief operating decision makers are the Company's Co-Chief Executive Officers, who review financial information presented on a consolidated basis accompanied by disaggregated information about revenues by geographic region for purposes of making operating decisions and assessing financial performance. The Company attributes revenue from customers to individual countries based on location shipped. The following summarizes required disclosures about geographic concentrations and revenue by products and services (in thousands):

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	Years ended December 31,		
	2016	2015	2014
Revenue by geography:		As Restated	As Restated
United States	\$ 16,872	\$ 4,426	\$ 12,526
Canada	1,967	7	—
Total North America	18,839	4,433	12,526
Latin America	9,604	2,510	1,318
Europe, Middle East, Africa	13,611	9,383	20,865
Korea	77,979	114,676	99,646
Other Asia Pacific	30,271	8,194	5,039
Total International	131,465	134,763	126,868
Total	\$ 150,304	\$ 139,196	\$ 139,394

	Years ended December 31,		
	2016	2015	2014
Revenue by products and services:		As Restated	As Restated
Products	\$ 142,238	\$ 133,036	\$ 132,282
Services	8,066	6,160	7,112
Total	\$ 150,304	\$ 139,196	\$ 139,394

The Company's property and equipment, net of accumulated depreciation, were located in the following geographical areas as of December 31, 2016 and 2015 (in thousands):

	As of December 31,	
	2016	2015
United States	\$ 4,094	\$ 113
Korea	1,455	2,138
Japan and Vietnam	739	—
	\$ 6,288	\$ 2,251

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**(18) Quarterly Information (unaudited)**

	Year ended December 31, 2016			
	Q1 <sup>(1)</sup>	Q2 <sup>(1)</sup>	Q3 <sup>(1)(2)</sup>	Q4 <sup>(2)</sup>
	(in thousands, except per share data)			
Net revenue	\$ 25,340	\$ 34,252	\$ 31,240	\$ 59,472
Gross profit	4,611	9,002	9,300	18,034
Operating loss	(4,341)	(165)	(5,114)	(3,429)
Net loss	(3,761)	(533)	(4,789)	(6,245)
Net income (loss) attributable to non-controlling interest	6	33	(56)	15
Net loss attributable to DASAN Zhone Solutions, Inc.	(3,767)	(566)	(4,733)	(6,260)
Net loss per share attributable to DASAN Zhone Solutions, Inc.:				
Basic	\$ (0.40)	\$ (0.06)	\$ (0.42)	\$ (0.38)
Diluted	(0.40)	(0.06)	(0.42)	(0.38)
Weighted-average shares outstanding:				
Basic	9,493	9,493	11,139	16,375
Diluted	9,493	9,493	11,139	16,375

<sup>(1)</sup> Certain prior quarterly financial information has been revised due to correction of certain errors. The Company identified and recorded immaterial errors related to the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016. The immaterial errors resulted from overstatement of net revenue and the associated related costs. The overall impact of the errors on the Company's consolidated financial position and results of operations is not material and as such, previously filed Quarterly Report on Form 10-Q affected by the errors has not been amended.

The adjustments resulted in a decrease in revenues of \$0.5 million, \$1.0 million and \$0.8 million for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016, respectively, and increase in net losses of \$0.3 million, \$0.6 million and \$0.1 million for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016, respectively.

<sup>(2)</sup> Results include the operating results of Legacy Zhone from and after September 9, 2016.

The information set forth below for all quarters and year-to-date periods in fiscal year 2015 has been restated to correct the misstatements described in Note 1. The following tables reconcile the amounts as previously reported in the applicable financial statement to the corresponding restated amounts. All financial statements are unaudited.

	Year ended December 31, 2015					
	Q1			Q2		
	As Previously Reported	Restatement Adjustments	As Restated	As Previously Reported	Restatement Adjustments	As Restated
	(in thousands, except per share data)					
Net revenue	\$ 38,727	\$ (322)	\$ 38,405	\$ 32,021	\$ (188)	\$ 31,833
Gross profit	9,755	(322)	9,433	8,480	(188)	8,292
Operating income (loss)	137	(103)	34	(2,108)	(170)	(2,278)
Net income (loss)	389	(103)	286	(2,547)	(170)	(2,717)
Net income (loss) per share:						
Basic	\$ 0.04	\$ (0.01)	\$ 0.03	\$ (0.28)	\$ (0.01)	\$ (0.29)
Diluted	0.04	(0.01)	0.03	(0.28)	(0.01)	(0.29)
Weighted-average shares outstanding:						
Basic	9,222	9,222	9,222	9,233	9,233	9,233
Diluted	9,222	9,222	9,222	9,233	9,233	9,233

	Year ended December 31, 2015					
	Q3			Q4		
	As Previously Reported	Restatement Adjustments	As Restated	As Previously Reported	Restatement Adjustments	As Restated
	(in thousands, except per share data)					
Net revenue	\$ 22,591	\$ (68)	\$ 22,523	\$ 46,686	\$ (251)	\$ 46,435
Gross profit	5,817	(18)	5,799	12,587	(225)	12,362
Operating income (loss)	(2,981)	(18)	(2,999)	2,337	(71)	2,266
Net income (loss)	(2,779)	(18)	(2,797)	1,973	(84)	1,889
Net income (loss) per share:						
Basic	\$ (0.30)	\$ —	\$ (0.30)	\$ 0.21	\$ (0.01)	\$ 0.20
Diluted	(0.30)	—	(0.30)	0.21	(0.01)	0.20
Weighted-average shares outstanding:						
Basic	9,331	9,331	9,331	9,459	9,459	9,459
Diluted	9,331	9,331	9,331	9,459	9,459	9,459

**(19) Subsequent Events**

**Management Transition**

On June 27, 2017, the Company and its former Chief Technology Officer of the Company, entered into an agreement setting for the terms pursuant to which the former Chief Technology Officer ceased to be an officer and employee of the Company effective July 11, 2017. Under the terms of this agreement, the former Chief Technology Officer: (a) received a severance payment equivalent to two months and two weeks of his base salary; (b) received an acceleration of unvested stock options to purchase 5,000 shares then held by the former Chief Technology Officer and an extension of exercise period with respect to such options until December 31, 2017; (c) has until October 9, 2017 to exercise his remaining vested options; and (d) received COBRA benefits for up to one month.

On September 11, 2017, the Company announced management transition changes in connection with the first anniversary of the Merger and the progress successfully attained in the integration of the businesses of Legacy Zhone and DNS. The Legacy Zhone senior management team of James Norrod and Kirk Misaka had been serving as the Company's Co-Chief Executive Officer and Chief Financial Officer, respectively, since the completion of the DNS acquisition under one-year employment agreements to ensure a smooth transition and integration of the businesses of legacy Zhone and DNS. Given the successful integration over the past year, the Company agreed with Messrs. Norrod and Misaka that they would step down from their management roles effective as of September 11, 2017. On September 11, 2017, Mr. Norrod also agreed to step down as a member of the Board of Directors of the Company. In connection with their resignations from their management roles, Messrs. Norrod and Misaka entered into release agreements with the Company. Pursuant to his release agreement, Mr. Norrod is entitled to receive a lump sum cash payment of \$300,000, continued health benefits at Company expense for a period of six

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months following his termination of employment and an extension of the period of time to exercise his vested stock options through September 11, 2018. Pursuant to his release agreement, Mr. Misaka is entitled to receive a lump sum cash payment of \$232,500 and an extension of the period of time to exercise his vested stock options through September 11, 2018. Mr. Misaka has agreed to remain in the employ of the Company as its Corporate Treasurer and Secretary for a transitional period to assist with the transition of his responsibilities, with the same base salary as was in effect prior to the management transition, and continued vesting of his outstanding stock options during the term of his employment, although his continued employment will no longer be governed by the terms of his employment agreement, which was terminated effective September 11, 2017. As part of this management transition, effective September 11, 2017, the Board of Directors of the Company appointed Il Yung Kim to serve as President, Chief Executive Officer and Acting Chief Financial Officer of the Company.

### ***Patent Infringement Injunction Relating to Supplier***

In July 2017, a supplier of the Company lost a patent infringement case relating to certain components that are used in Company products. As a result of this injunction, the Company will no longer sell or ship these products to Germany.

## **ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

The information required by this Item 9 and Item 304(a) of Regulations S-K was previously reported in our Current Reports on Form 8-K filed on October 17, 2016 and December 2, 2016.

### **ITEM 9A. CONTROLS AND PROCEDURES**

#### **Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures designed to provide reasonable assurance of achieving the objective that information required to be disclosed in our reports filed or submitted pursuant to the Securities Exchange Act of 1934 (the Exchange Act) is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our Co-Chief Executive Officers and Chief Financial Officer, as appropriate to allow for timely decisions regarding required disclosures. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As required by SEC Rule 13a-15(b), we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2016, the end of the period covered by this report. The evaluation was done under the supervision and with the participation of management, including our Co-Chief Executive Officers and our Chief Financial Officer. Based upon this evaluation and the results of the independent investigation conducted by the Audit Committee (as discussed above, under "Business - Audit Committee Investigation"), our Co-Chief Executive Officers and Chief Financial Officer concluded that, because of the material weaknesses in our internal control over financial reporting described below under "Management's Annual Report on Internal Control over Financial Reporting," our disclosure controls and procedures were not effective as of December 31, 2016.

#### **Management's Annual Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2016, the end of our fiscal year. In making this assessment, management used the criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee Sponsoring Organizations of the Treadway Commission (COSO). Based on our assessment of internal control over financial reporting, management has concluded that, as of December 31, 2016, our internal control over financial reporting, because of the material weaknesses in our internal control over financial reporting described below, was not effective.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the registrant's annual or interim financial statements will not be prevented or detected on a timely basis. Based on the results of the independent investigation and due to the incorrect application of generally accepted accounting principles that resulted in material misstatements and a restatement of our unaudited condensed consolidated financial statements for the three and nine months ended September 30, 2016, management identified material weaknesses in our internal control over financial reporting as of December 31, 2016. Specifically, we did not

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maintain an effective control environment as there was an insufficient complement of personnel with appropriate accounting knowledge, experience and competence, resulting in incorrect application of generally accepted accounting principles. This material weakness contributed to the following material weaknesses. We did not maintain effective controls over our financial close process. Also, we did not design and maintain effective controls over the review of supporting information to determine the completeness and accuracy of the accounting for complex transactions, specifically related to the business combination that occurred on September 9, 2016, which resulted in an incorrect application of generally accepted accounting principles that resulted in material misstatements and a restatement of our unaudited condensed consolidated financial statements for the three and nine months period ended September 30, 2016. Additionally, these material weaknesses could result in a misstatement in the financial statements that would result in a material misstatement in the annual or interim consolidated financial statements that would not be prevented or detected.

### **Remediation Plan for Material Weaknesses in Internal Control over Financial Reporting**

As of the date of this report, we are re-assessing the design of our controls and modifying processes related to the accounting for significant and unusual transactions as well as enhancing monitoring and oversight controls in the application of applicable accounting guidance related to such transactions. In connection therewith, we anticipate that we will hire additional accounting personnel with relevant skills, training and experience, and conduct further training of accounting and finance personnel.

### **Changes in Internal Control over Financial Reporting**

Except as described above, there were no changes in our internal control over financial reporting that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Merger-related integration activities may lead us to modify certain internal controls in future periods.

### **Inherent Limitations on Effectiveness of Controls**

Our management, including our Co-Chief Executive Officers and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of controls effectiveness to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

### **ITEM 9B. OTHER INFORMATION**

None.

## PART III

## ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

## EXECUTIVE OFFICERS

Information relating to our executive officers is included under the caption "Executive Officers" in Part I of this Annual Report on Form 10-K, pursuant to General Instruction G(3) of Form 10-K.

## DIRECTORS

In accordance with our certificate of incorporation, we divide our Board of Directors into three classes, with Class I consisting of two members, Class II consisting of one member, and Class III consisting of two members. We elect one class of directors to serve a three year term at each annual meeting of stockholders. Each elected director will continue to serve until his or her successor is duly elected or appointed.

The following table sets forth for each director: the age of such director, the positions currently held with the Company, the year in which such director's current term will expire, and the class of such director.

Name	Age	Position	Term Expires	Class
Min Woo Nam	54	Chairman of the Board of Directors	2019	III
Michael Connors	75	Director	2017	I
Il Yung Kim	60	President, Chief Executive Officer, Acting Chief Financial Officer and Director	2019	III
Seong Gyun Kim	50	Director	2017	I
Sung-Bin Park	50	Director	2018	II

All of our directors bring to the Board of Directors a wealth of executive leadership experience derived from their service as executives or managing directors of small, large and multinational corporations or venture capital firms. They also bring extensive board experience. The process undertaken by the Corporate Governance and Nominating Committee in recommending qualified director candidates is described below under "Corporate Governance Principles and Board Matters-Committee Composition-Corporate Governance and Nominating Committee." See also "Corporate Governance Principles and Board Matters - Board Structure" above for a discussion of requirements with respect to our Board of Directors prior to September 9, 2018. Certain individual qualifications and skills of our directors that contribute to the Board of Director's effectiveness as a whole are described in the following paragraphs.

*Min Woo Nam* has served as the Chairman of the Board of Directors of DZS since the consummation of the Merger on September 9, 2016. Mr. Nam currently serves as the Chief Executive Officer and Chairman of the Board of Directors of DNI, a position he has held since March 1993. Mr. Nam previously served as the Chief Executive Officer of Korea Ready System and Dasan Engineering Co., Ltd. His work has included export of technical services to Silicon Valley, California since 1999. Mr. Nam served as General Chairman of the International Network of Korean Entrepreneurs from 2004 until 2006, and has served as Director of the Korea Entrepreneurship Foundation since November 2011. Previously, he has served as Chairman of the Korean Venture Business Association. Mr. Nam completed his B.E. in Mechanical Engineering from Seoul National University in 1984. We believe Mr. Nam is well suited to serve as the Chairman of our Board of Directors given his extensive experience in chief executive officer and chairman roles and his in-depth knowledge of the telecommunications industry.

*Michael Connors* has served as a director of DZS since November 2003 following the consummation of Legacy Zhone's merger with Tellium, Inc. Dr. Connors had been a member of Tellium's board of directors since June 2000. From 1992 to 1998, Dr. Connors held the office of President of AOL Technologies, an Internet service provider, where he led the creation and growth of AOLnet and the development of AOL software and services. Dr. Connors is currently a director of The Connors Foundation. Dr. Connors earned a B.S. in Engineering, an M.S. in Statistics and a Ph.D. in Operations Research from Stanford University. We believe Dr. Connors is well suited to serve on our Board of Directors given his extensive knowledge of the communications industry based on his experience as President of AOL Technologies and director of Tellium.

*Il Yung Kim* has served as a director and Co-Chief Executive Officer of DZS since the consummation of the Merger on September 9, 2016, and assumed his current role of director and President, Chief Executive Officer and Acting Chief Financial Officer as part of the management transition in connection with the first anniversary of the Merger in September 2017. Prior to joining DZS, Mr. Kim served as a consultant to DNI in connection with the Merger. From September 2014 to

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August 2016, Mr. Kim served as Chief Executive Officer of TukTak in Korea, an online startup company, which enables people with creative talents to collaborate and produce goods and services online. From December 2014 to August 2016, he also served as a strategic advisor for InMobi, a global mobile advertising platform provider. Previously, Mr. Kim held various positions with Korea Telecom, including as President and executive board member from 2013 to January 2014, and as Chief Strategy Officer from 2010 to 2013. Mr. Kim commenced his career with British Telecom in 1982, where he held various senior positions including Vice President of Technology and Innovation and Programme Director and Head of Technology and Investment. Mr. Kim holds a B.S. (with Honors) in Electronic Engineering and an M.S. Degree in Microwave and Modern Optics from University College, University of London. We believe Mr. Kim is well suited to be our Chief Executive Officer and serve on our Board of Directors given his extensive chief executive officer experience, his expertise in the business arena and his in-depth knowledge of the telecommunications industry.

*Seong Gyun Kim* has served as a director of DZS since the consummation of the Merger on September 9, 2016. Mr. Kim currently serves as the Chief Financial Officer and a director of Finetex EnE, Inc., a nanofiber technology company listed on KOSDAQ, positions he has held since 2008. Prior to joining Finetex, Mr. Kim served as a Vice President of Mbizkorea, a game development and game products try-and-buy service supplier company, from 2006 to 2008. From 2013 to 2016, Mr. Kim served as a director of Interpark Corp., a KOSDAQ-listed Korean online auction and shopping mall. Mr. Kim holds an M.B.A. from Ajou University in South Korea and a B.S. in International Economics from Seoul National University. We believe Mr. Kim is well suited to serve on our Board of Directors given his considerable experience in the business arena as well as serving on different boards of public companies.

*Sung-Bin Park* has served as a director of DZS since the consummation of the Merger on September 9, 2016. Mr. Park is a co-founder and Managing Director of TransLink Capital (a U.S.-based venture capital firm), a position he has held since February 2009. Mr. Park is also a founder and Chief Executive Officer of SPK Inc. (which provides Korean business development services to U.S.-based start-ups) and Spark and Associates (a consulting firm providing big data analytics services), positions he has held since May 2002 and November 2010, respectively. Mr. Park earned an M.B.A. from Stanford University and a B.S. in Materials Science and Engineering from Massachusetts Institute of Technology. We believe Mr. Park is well suited to serve on our Board of Directors given his extensive knowledge providing Korean business development services to U.S. based companies as founder and Chief Executive Officer of SPK Inc.

## **CORPORATE GOVERNANCE PRINCIPLES AND BOARD MATTERS**

We are dedicated to maintaining the highest standards of business integrity. It is our belief that adherence to sound principles of corporate governance, through a system of checks, balances and personal accountability is vital to protecting our reputation, assets, investor confidence and customer loyalty. Above all, the foundation of our integrity is our commitment to sound corporate governance. Our corporate governance principles and Code of Conduct and Ethics can be found in the "Corporate Governance" section of our website at <http://dasanzhone.com/about/investor-relations/corporate-governance/>.

### **Board Structure**

On September 9, 2016, we acquired DNS through the Merger. At the closing of the Merger, we issued 9,493,016 shares (post reverse stock split) of our common stock to DNI, as the sole stockholder of DNS, of which 949,302 shares (post reverse stock split) are being held in escrow as security for claims for indemnifiable losses in accordance with the agreement governing the Merger (the Merger Agreement). As a result, immediately following the effective time of the Merger, DNI held 58% of the outstanding shares of our common stock and the holders of our common stock immediately prior to the Merger retained, in the aggregate, 42% of the outstanding shares of our common stock.

On September 9, 2016, effective as of the effective time of the Merger and in accordance with the terms of the Merger Agreement, (1) Robert Dahl and Mahvash Yazdi resigned from our Board of Directors, (2) the size of our Board of Directors was increased from five to seven directors, (3) the Board of Directors appointed Min Woo Nam, Il Yung Kim, Seong Gyun Kim and Sung-Bin Park to fill the vacancies on the Board resulting from the resignations of Mr. Dahl and Ms. Yazdi and the newly created directorships, and (4) Mr. Nam was elected as Chairman of our Board of Directors. As required by the Merger Agreement, the appointments of Messrs. Nam, Kim, Kim and Park to the Board of Directors were designated by DNI.

In connection with the Merger, effective as of September 9, 2016, we amended our bylaws to provide that, from the closing of the Merger until September 9, 2018: (1) the number of directors constituting our Board of Directors shall be seven and (2) subject to the failure of any director to be re-elected to the Board of Directors by our stockholders, the Board of Directors shall be composed of the four directors designated at the closing by DNI (or a replacement approved by a majority of the remaining DNI-designated directors (or their replacements)) and the three directors designated at the closing by us (or a replacement approved by a majority of the remaining directors designated at the closing by us (or their replacements)). With respect to our 2017 and 2018 annual meetings of stockholders (or any special meeting of stockholders for the election of directors held prior to the second anniversary of the Merger), our bylaws require that the nominees for election to the relevant Class of the Board of

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Directors at such meeting be comprised of the director(s) of that Class designated at the closing by DNI and us (or a replacement approved by the applicable remaining directors, as described above).

In connection with the Merger and in accordance with the terms of the Merger Agreement, on September 9, 2016, we also entered into a stockholder agreement with DNI, pursuant to which DNI has agreed, on the terms set forth therein, to vote its shares of our common stock until September 9, 2018 (1) in favor of the election of each person who is nominated by the Board of Directors for election to the Board in accordance with our bylaws and (2) against the removal of any such director unless such removal is recommended by a resolution approved by the affirmative vote of at least two-thirds of the entire Board of Directors.

On September 11, 2017, in connection with the first anniversary of the Merger and the progress successfully attained in the integration of the businesses of Legacy Zhone and DNS, we announced that the Legacy Zhone senior management team of James Norrod and Kirk Misaka were stepping down from their respective roles as Co-Chief Executive Officer and Chief Financial Officer. Messrs. Norrod and Misaka had been serving in those roles under one-year employment agreements to ensure a smooth transition and integration of the businesses of Legacy Zhone and DNS. Mr. Norrod resigned from DZS, including from our Board of Directors, as part of this management transition effective as of September 11, 2017. Mr. Misaka has agreed to remain in our employ as Corporate Treasurer and Secretary for a transitional period to assist with the transition of his responsibilities. Also effective as of September 11, 2017, Richard Kramlich resigned from the Board of Directors to focus on his other business endeavors. Under our bylaws, as Messrs. Norrod and Kramlich were designed by Legacy Zhone at the closing of the Merger, any director appointed to fill the vacancies created by their resignations must be approved by Michael Connors, as the remaining Legacy Zhone director designee. We do not intend to fill the vacancies on our Board of Directors created by the resignations of Messrs. Norrod and Kramlich at this time, but may elect to do so in the future.

The positions of Chairman and Chief Executive Officer are separate. The Board of Directors believes its current leadership structure is appropriate at this time to maximize the effectiveness of its oversight of management and to provide a perspective that is separate and distinct from that of management. The Board of Directors also believes the separation of the Chairman and Chief Executive Officer roles allows our Chief Executive Officer to focus his time and energy on operating and managing our business and leverages the Chairman's experience and perspectives.

We have elected to be treated as a "controlled company" under Nasdaq Marketplace Rules because more than 50% of the voting power for the election of directors is held by DNI. As a "controlled company," we may rely on exemptions from certain corporate governance requirements under Nasdaq Marketplace Rules, including the requirement that we have a majority of independent directors on the Board of Directors and requirements with respect to compensation and nominating and corporate governance committees.

### **Board Independence**

The Board of Directors has affirmatively determined that each member of the Board of Directors, other than Min Woo Nam and Il Yung Kim, is independent under the criteria established by Nasdaq for independent board members. At the conclusion of the regularly scheduled Board of Directors meetings, the independent directors have the opportunity to and regularly meet outside of the presence of our management. In addition, each member of the Audit Committee of the Board of Directors is currently an independent director in accordance with Nasdaq standards.

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### Committee Composition

As of the date of this report, we had the following three standing committees: (1) Audit Committee, (2) Compensation Committee, and (3) Corporate Governance and Nominating Committee. The membership during the last fiscal year and the function of each of the committees are described below. Each of the committees operates under a written charter which can be found on the “Corporate Governance” section of our website at [www.dasanzhone.com](http://www.dasanzhone.com).

Director	Audit Committee	Compensation Committee	Corporate Governance and Nominating Committee
Michael Connors (1)	Member		
Robert Dahl (2)	Chair	Member	Member
Morteza Ejabat (3) Il Yung Kim			
Seong Gyun Kim(2)	Chair		
C. Richard Kramlich (1) (4)	Member	Member	Member
Min Woo Nam (2)(4)		Chair	Chair
James Norrod (5)			
Sung-Bin Park (4)(6)	Member	Member	Member
Mahvash Yazdi (7)			
<b>Number of Meetings in 2016</b>	<b>6</b>	<b>4</b>	<b>4</b>

- (1) Effective as of September 11, 2017, Mr. Kramlich resigned from his position as a director of DZS and member of the Compensation Committee and Corporate Governance and Nominating Committee, and Dr. Connors was appointed as a member of both committees to fill the resulting vacancies.
- (2) Mr. Dahl resigned from his position as a director of DZS, Chairman of the Audit Committee and member of the Compensation Committee and Corporate Governance and Nominating Committee in connection with the Merger effective as of September 9, 2016. Mr. Seong Gyun Kim was appointed as Chairman of the Audit Committee to fill the vacancy effective as of September 9, 2016. Mr. Nam was appointed member of the Corporate Governance and Nominating Committee to fill the vacancy effective as of September 9, 2016.
- (3) Mr. Ejabat resigned from his position as Executive Chairman of our Board of Directors effective as of January 31, 2016.
- (4) Mr. Kramlich resigned from his position as Interim Chairman of our Board of Directors and as a member of the Audit Committee in connection with the Merger effective as of September 9, 2016. Mr. Nam was appointed Chairman of our Board of Directors effective as of September 9, 2016. Mr. Park was appointed as a member of the Audit Committee to fill the vacancy effective as of September 9, 2016.
- (5) Mr. Norrod stepped down from his position as Co-Chief Executive Officer and resigned as a director of DZS effective as of September 11, 2017.
- (6) Effective as of September 9, 2016, in connection with the Merger, the size of the Corporate Governance and Nominating Committee was expanded from two to three members. Mr. Park was appointed as a member of the Corporate Governance and Nominating Committee to fill the vacancy effective as of September 9, 2016.
- (7) Ms. Yazdi resigned from her position as a director of DZS in connection with the Merger effective as of September 9, 2016.

### Audit Committee

The Audit Committee reviews the professional services provided by our independent registered public accounting firm, the independence of such independent registered public accounting firm from our management, and our annual and quarterly financial statements. The Audit Committee also reviews such other matters with respect to our accounting, auditing and financial reporting practices and procedures as it may find appropriate or may be brought to its attention. The responsibilities and activities of the Audit Committee are described in greater detail in the section entitled “Audit Committee Report.”

Each member of the Audit Committee is an independent director under the criteria established by Nasdaq. Our Board of Directors has also determined that each member of the Audit Committee qualifies as an “audit committee financial expert,” as that term is defined in the rules and regulations established by the SEC. Stockholders should understand that this designation is a disclosure requirement of the SEC related to the experience and understanding of our Audit Committee members with respect to certain accounting and auditing matters. The designation does not impose upon them any duties, obligations or liabilities that are greater than are generally imposed on them as a member of the Audit Committee and the Board of Directors, and their

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designation as audit committee financial experts pursuant to this SEC requirement does not affect the duties, obligations or liability of any other member of the Audit Committee or the Board of Directors.

### **Compensation Committee**

The Compensation Committee is responsible for establishing and monitoring policies governing the compensation of executive officers. In carrying out these responsibilities, the Compensation Committee is responsible for reviewing the performance and compensation levels for executive officers, establishing salary and bonus levels for these individuals, and approving stock option grants for these individuals under our stock option plans. The objectives of the Compensation Committee are to correlate executive officer compensation with our business objectives and financial performance, and to enable us to attract, retain and reward executive officers who contribute to the long-term success of the company. The Compensation Committee seeks to reward executive officers in a manner consistent with our annual and long-term performance goals, and to recognize individual initiative and achievement among executive officers.

### **Corporate Governance and Nominating Committee**

The Corporate Governance and Nominating Committee develops and reviews corporate governance principles applicable to the company, identifies individuals qualified to serve as directors, selects or recommends nominees to the Board of Directors for the election of directors, and advises the Board of Directors with respect to Board of Directors and committee composition. The Corporate Governance and Nominating Committee is also responsible for reviewing with the Board of Directors from time to time the appropriate skills and characteristics required of Board of Directors members in the context of the current size and make-up of the Board of Directors. This assessment includes issues of diversity of professional experience, viewpoint, age, skills (such as understanding of manufacturing, technology, finance and marketing), and international background. These factors, and any other qualifications considered useful by the Corporate Governance and Nominating Committee, are reviewed in the context of an assessment of the perceived needs of the Board of Directors at a particular point in time. As a result, the priorities and emphasis of the Corporate Governance and Nominating Committee and of the Board of Directors may change from time to time to take into account changes in business and other trends, and the portfolio of skills and experience of current and prospective Board of Directors members. Therefore, while focused on the achievement and the ability of potential candidates to make a positive contribution with respect to such factors, the Corporate Governance and Nominating Committee has not established any specific minimum criteria or qualifications that a nominee must possess.

Subject to the requirements under our bylaws with respect to elections to the Board of Directors prior to the second anniversary of the Merger (as described above), in selecting or recommending candidates for election to the Board of Directors, the Corporate Governance and Nominating Committee considers nominees recommended by directors, management and stockholders using the same criteria to evaluate all candidates. The Corporate Governance and Nominating Committee reviews each candidate's qualifications, including whether a candidate possesses any of the specific qualities and skills desirable in certain members of the Board of Directors. Evaluations of candidates generally involve a review of background materials, internal discussions and interviews with selected candidates as appropriate. Upon the identification of a qualified candidate, the Corporate Governance and Nominating Committee would select, or recommend for consideration by the full Board of Directors, the nominee for the election of directors. The Corporate Governance and Nominating Committee may engage consultants or third party search firms to assist in identifying and evaluating potential nominees. To recommend a prospective nominee for the Corporate Governance and Nominating Committee's consideration, stockholders should submit the candidate's name and qualifications to our Corporate Secretary in writing to the following address: DASAN Zhone Solutions, Inc., Attention: Corporate Secretary, 7195 Oakport Street, Oakland, California 94621. When submitting candidates for nomination to be elected at the annual meeting of stockholders, stockholders must also follow the notice procedures and provide the information required by our bylaws. See "Board Structure" above for a discussion of requirements with respect to the composition of the Board of Directors prior to September 9, 2018.

### **Special Committee**

Pursuant to the Merger Agreement, the Board of Directors has also established a Special Committee which is responsible for administering certain post-closing provisions of the Merger Agreement on our behalf. Michael Connors is currently the sole member of the Special Committee. The Special Committee did not hold any meetings during the year ended December 31, 2016.

### **Board Meetings and Director Attendance at Annual Meetings of Stockholders**

During the year ended December 31, 2016, the Board of Directors of Legacy Zhone (prior to the Merger) and DZS (following the Merger) held nine meetings. During this period, all of the directors attended or participated in at least 75% of the aggregate of the total number of meetings of the Board of Directors and the total number of meetings held by all committees of

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the Board of Directors on which each such director served, in each case during the period for which they were directors of Legacy Zhone or DZS (as applicable). We endeavor to schedule our annual meeting of stockholders at a time and date to maximize attendance by directors taking into account the directors' schedules. One of our directors attended last year's annual meeting of stockholders.

### **Board of Directors' Role in Risk Oversight**

The Board of Directors has an active role, as a whole and also at the committee level, in overseeing management of the company's risks. The Compensation Committee is responsible for overseeing the management of risks relating to our executive compensation plans and arrangements. The Audit Committee oversees management of financial risks and discusses our policies with respect to risk assessment and risk management. The Corporate Governance and Nominating Committee manages risks associated with the independence of the Board of Directors and potential conflicts of interest.

The Board of Directors' role in our risk oversight process includes receiving regular reports from members of senior management on areas of material risk to the company, including operational, financial, legal and regulatory, and strategic and reputational risks. The full Board of Directors (or the appropriate committee in the case of risks that are under the purview of a particular committee) receives these reports from the appropriate "risk owner" within the organization to enable it to understand our risk identification, risk management and risk mitigation strategies. When a committee receives the report, the Chairman of the relevant committee reports on the discussion to the full Board of Directors during the committee reports portion of the next Board of Directors meeting. This enables the Board of Directors and its committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

### **Communications with the Board of Directors**

Any stockholder wishing to communicate with any of our directors regarding corporate matters may write to the director, c/o Corporate Secretary, DASAN Zhone Solutions, Inc., 7195 Oakport Street, Oakland, California 94621. The Corporate Secretary will forward these communications directly to the director(s). However, certain correspondence such as spam, junk mail, mass mailings, product complaints or inquiries, job inquiries, surveys, business solicitations or advertisements, or patently offensive or otherwise inappropriate material may be forwarded elsewhere within the company for review and possible response.

### **Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16(a) of the Exchange Act requires our directors, executive officers and holders of more than 10% of our common stock to file reports of ownership and changes in ownership with the SEC. These persons are required to furnish us with copies of all forms that they file. Based solely on our review of copies of these forms in our possession and in reliance upon written representations from our directors and executive officers, with the exception of one late Form 4 filing for Mr. Norrod on April 6, 2016, disclosing a single transaction in which Mr. Norrod was granted an option to purchase 250,000 shares of our common stock, we believe that all of our directors, executive officers and 10% stockholders complied with the Section 16(a) filing requirements during 2016.

### **Code of Conduct**

We have adopted a Code of Conduct and Ethics applicable to all of our employees, directors and officers (including our principal executive officer, principal financial officer, principal accounting officer and controller). The Code of Conduct and Ethics is designed to deter wrongdoing and to promote honest and ethical conduct and compliance with applicable laws and regulations. The full text of our Code of Conduct and Ethics can be found in the "Corporate Governance" section of our website at <http://dasanzhone.com/about/investor-relations/corporategovernance/>. We intend to disclose future amendments to certain provisions of our Code of Conduct and Ethics, or waivers of such provisions granted to executive officers and directors, on our website within four business days following the date of such amendment or waiver.

## **ITEM 11. EXECUTIVE COMPENSATION**

### **Compensation Discussion and Analysis**

This compensation discussion and analysis summarizes our philosophy and objectives regarding the compensation of our executive officers and senior managers, including how we determine the elements and amounts of compensation. The Compensation Committee of the Board of Directors is responsible for determining, establishing and approving each element of compensation including salary and all bonus, incentive, equity and other compensation for the company's executive officers and

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senior managers. Our fiscal year 2016 named executive officers were: Il Yung Kim, Co-Chief Executive Officer; James Norrod, Co-Chief Executive Officer; and Kirk Misaka, Chief Financial Officer.

On September 9, 2016, effective as of the effective time of the Merger, Mr. Kim was appointed as Co-Chief Executive Officer of DZS and the title of Mr. Norrod was changed from President and Chief Executive Officer to Co-Chief Executive Officer. The appointments of Messrs. Kim and Norrod as Co-Chief Executive Officers in connection with the consummation of the Merger was required by the terms of the Merger Agreement, and each of our named executive officers entered into a one-year employment agreement with DZS to ensure a smooth transition and integration of the businesses of Legacy Zhone and DNS. On September 11, 2017, we announced management transition changes in connection with the first anniversary of the Merger and the progress successfully attained in the integration of the businesses of Legacy Zhone and DNS. Given the successful integration over the past year, we agreed with Messrs. Norrod and Misaka that they would step down from their management roles effective as of September 11, 2017. On September 11, 2017, Mr. Norrod also agreed to step down as a member of our Board of Directors. Mr. Misaka has agreed to remain in our employ as our Corporate Treasurer and Secretary for a transitional period to assist with the transition of his responsibilities. As part of this management transition, effective September 11, 2017, the Board of Directors appointed Il Yung Kim to serve as our President, Chief Executive Officer and Acting Chief Financial Officer.

### **Executive Summary**

DZS is a global provider of network access solutions and communications equipment for service providers and enterprise networks. We operate in a highly competitive environment. The purpose of our executive compensation program is to attract, motivate and retain the executives who lead our business and align their interests with the long-term interests of our stockholders. The main elements of our compensation program are base salary, annual cash bonus and long-term equity incentive awards. We seek to pay our named executive officers fairly and link pay with performance.

The leadership and discipline of our management team heavily contributed to our performance over the last several years. Among other achievements, our named executive officers demonstrated solid execution of our business plan and the promotion of our strategic objectives, including the successful completion of the Merger. They continued to position us appropriately for growth, including by increasing revenues, expanding operating income as a percentage of revenue, and promoting a diverse customer and product mix in our businesses. Their focus on expense and working capital management increased our efficiency and improved our results. In addition, our managers promoted a philosophy of continuous improvement, leadership development among our senior managers and the ongoing importance of diversity and inclusion among our employee population. Our named executive officers have transitioned the company to expand and grow our business. Our fiscal 2016 accomplishments, guided by our named executive officers, illustrate this focus, which included, among other things, the following:

- We completed the Merger and initiated the process of integrating the businesses of Legacy Zhone and DNS.
- Our results from continuing operations in fiscal year 2016 reflected ongoing resiliency in our business as demonstrated in our carrier business while investing in the expansion of the enterprise business.
- Overall, we demonstrated strong execution on strategic business objectives.

In determining the compensation of our named executive officers for 2016, the Compensation Committee evaluated our company's overall performance and their individual contributions to that performance, including the factors described above.

Based on the comparable company information reviewed by the Compensation Committee each year in connection with its annual review of our executive compensation program, the Compensation Committee has historically targeted total direct compensation opportunities for the named executive officers at approximately the median of the competitive market data at time of hire and gradually made adjustments to levels above the median as the named executive officer demonstrates performance and assumes additional responsibilities over time. In keeping with our corporate objectives to conserve cash, none of Legacy Zhone's named executive officers received raises in base salary for 2015. Additionally, commencing in October 2015, a voluntary salary reduction was initiated by the executive officers pursuant to which our named executive officers' base salaries were reduced by 20%. This salary reduction, initiated in 2015, remained in effect in 2016, but was discontinued on April 1, 2017 for our named executive officers. On that date, Mr. Kim's and Mr. Norrod's annual salary increased to \$400,000 and Mr. Misaka's annual salary increased to \$365,000.

In light of our recent performance and the other factors described above, we believe our executive pay is reasonable, consistent with our performance and financial objectives and position.

### ***Philosophy and Objectives***

We strive to find the best talent, resources and infrastructure to serve our customers and strategically expand our product portfolio. Our goal is to attract and retain highly qualified executives to manage and oversee each of our business functions. We seek out individuals who we believe will be able to contribute to our business and our vision of future success, culture, principles and values, and who will promote the long-term interests and growth of our company. Our compensation philosophy is intended

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to promote a team-oriented approach to performance as a portion of each named executive officer's incentive compensation is based on achievement against the same performance objectives as our broad-based incentive plan. In 2016, all employees were provided with the same health, welfare and retirement benefits as the executives.

Our compensation programs aim to achieve the following:

- foster a goal-oriented, highly talented leadership team with a clear understanding of business objectives and shared corporate principles and values;
- allocate our resources effectively in the development and selling of market-leading technology and products;
- control costs in our business to maximize our efficiency;
- ensure that the elements of compensation provided to our employees and executives are balanced, individually and in combination, and do not encourage excessive risk-taking;
- reflect the competitive environment of our industry and our changing business needs;
- enable us to attract, retain and drive a world-class leadership team; and
- maintain pay parity and fair compensation practices across our organization.

In furtherance of these goals, our compensation programs are designed to:

- be market competitive;
- emphasize pay for performance;
- share risks and rewards with our stockholders;
- align the interests of our employees and executives with those of our stockholders; and
- reflect our principles and values.

Our executive compensation program in 2016 consisted of the following components:

- base salary;
- potential cash bonuses;
- equity-based incentives; and
- health, welfare and retirement benefits.

The Compensation Committee's goal is to set total compensation for our named executive officers at levels that are generally comparable to executives with similar roles and responsibilities at our peer group of companies, consistent with our goals, and appropriate in light of the company's financial position and the executive's experience level and expected contribution. The Compensation Committee typically targets total compensation for our named executive officers at or above the median of the market data from our peer group of companies, although actual compensation for an executive officer may be higher or lower than the targeted position depending on such factors as the individual performance of the named executive officer, our actual financial performance during the year, intensity of competition and general market conditions, the experience level, responsibilities and expected future contribution of the executive, and the importance of each position. The Compensation Committee does not rely solely upon rigid, pre-determined formulas for determining executive compensation and may consider any factor that is deemed pertinent to its executive compensation decisions.

### ***Role of Chief Executive Officer and Chief Financial Officer in Determining Executive Compensation and Benchmarking Data***

We generally have followed a consistent process over the years for determining compensation for our named executive officers. At the conclusion of each fiscal year, our Chief Executive Officer (or Co-Chief Executive Officers, as applicable) and Chief Financial Officer with the assistance of the Human Resources Department, consider the compensation of executives in similar positions to theirs at our peer group, which is discussed below, using information gathered from proxy statements and other SEC filings. Our Chief Executive Officer (or Co-Chief Executive Officers, as applicable) and Chief Financial Officer then provide recommendations to the Compensation Committee for adjustments to their base salaries, bonus opportunities and equity levels.

Our Chief Executive Officer (or Co-Chief Executive Officers, as applicable) and our Chief Financial Officer attend some of the Compensation Committee meetings, but the Compensation Committee also regularly holds executive sessions not attended by any members of management or non-independent directors. The Compensation Committee discusses our Chief Executive Officer's and Chief Financial Officer's compensation package with them, but makes decisions with respect to their compensation without them present. The Compensation Committee has the ultimate authority to make decisions with respect to the compensation of our named executive officers, but may, if it chooses, delegate any of its responsibilities to subcommittees. The

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Compensation Committee has delegated to Mr. Kim the authority to grant long-term incentive awards to employees below the level of executive officer under guidelines set by the Compensation Committee. The Compensation Committee also has authorized Mr. Kim to make salary adjustments and short-term incentive decisions for all employees other than officers under guidelines approved by the Compensation Committee. The Compensation Committee has not delegated any of its authority with respect to the compensation of executive officers. Although neither the Compensation Committee nor the Board of Directors is required to ratify the actions of Mr. Kim with regard to the authority delegated to him, as a matter of good corporate practice, Mr. Kim periodically provides a report to the Board of Directors regarding grants of long-term incentive awards to employees authorized by him. The Compensation Committee reviews this information in light of its own current experience, access to compensation information and experience at other companies and on other boards. The Compensation Committee historically has given considerable weight to management recommendations based on their direct knowledge of their performance and contributions to the company. The Compensation Committee considers these factors, as well as any other factors it may deem relevant to its executive compensation determinations, and sets the compensation for the company's executive officers.

In determining the compensation of the named executive officers for fiscal year 2016, the Compensation Committee considered external market data and publicly available information from a peer group of comparable companies compiled as described above. This market data focused on, among other things, the cash components of compensation for executives.

The 2016 peer group used for purposes of determining 2016 compensation for the named executive officers represents companies within the telecommunications industry. The peer group was chosen primarily because they are our primary business competitors and because we consider the scope and complexity of their business operations to be closely related to ours. Our 2016 peer group was established by the Compensation Committee based on recommendations made by management.

For fiscal year 2016, our peer group was comprised of the following companies:

- Adtran, Inc.
- Brocade Communications Systems, Inc.
- Calix, Inc.
- Ciena Corporation
- F5 Networks, Inc.
- Harmonic, Inc.
- Infinera Corporation
- IXIA
- Juniper Networks, Inc.
- Sonus Networks, Inc.
- Westell Technologies, Inc.

### ***Role of Compensation Consultants***

In performing its duties, the Compensation Committee may obtain input, as it deems necessary, from outside professional consulting firms retained directly by the Compensation Committee or through the assistance of the Human Resources Department. The Compensation Committee did not retain an outside professional consulting firm to conduct a competitive review and assessment of the company's executive compensation program for the 2016 fiscal year.

### ***Elements of Compensation Allocation***

The Compensation Committee believes that each element of our compensation program is essential to attracting and retaining experienced and motivated executive officers who are able to successfully manage our operations, strategic direction and financial performance, particularly given the intensely competitive and rapidly changing telecommunications industry in which we operate. In evaluating the overall mix of compensation for named executive officers, the Compensation Committee typically does not rely on pre-determined formulas for weighting different elements of compensation for allocating between long-term and short-term compensation, but instead strives to develop comprehensive compensation packages that emphasize attainment of our short-term and long-term objectives and are reflective of our financial position and the executive's abilities, experience level and contributions.

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### ***Base Salaries***

In general, base salaries for employees, including named executive officers, are established based on the scope of their responsibilities, individual contribution, prior experience, sustained performance and anticipated level of difficulty of replacing the employee with someone of comparable experience and skill. Decisions regarding salary increases take into account the executive's current salary and the amounts paid to the named executive officer's peers outside the company. In addition to considering the competitive pay practices of our peer group of companies, we also consider the amounts paid to a named executive officer's peers internally by conducting an internal pay equity analysis which compares the pay of each named executive officer to other members of the management team. Base salaries are reviewed periodically, but are not automatically increased if the Compensation Committee believes that other elements of compensation are more appropriate in light of our stated objectives. This strategy is consistent with our intent of offering compensation that is contingent on the achievement of performance objectives. In keeping with our corporate objectives to conserve cash, none of our named executive officers received raises in base salary for 2016. Additionally, commencing in October 2015, a voluntary salary reduction was initiated by the named executive officers. For 2015, Legacy Zhone's named executive officers' base salaries were reduced by 20%. All other exempt employees company-wide incurred a base salary reduction of 10%. This salary reduction initiated in 2015 was reinstated in July 2016 and remained in effect in 2016 for Messrs. Norrod, Kim and Misaka. The salary reduction was discontinued on April 1, 2017. On that date, Mr. Kim's and Mr. Norrod's annual salary increased to \$400,000 and Mr. Misaka's annual salary increased to \$365,000.

### ***Annual Incentives***

In addition to the named executive officers' base salaries, they are eligible to participate in a performance-based annual bonus program, to be earned and paid quarterly in equal installments. Mr. Kim's target quarterly bonus is \$100,000. Mr. Norrod's target quarterly bonus was \$100,000. Mr. Misaka's target quarterly bonus was \$50,000. Their actual bonus is intended to be based upon our Board of Directors' evaluation of our overall results compared to the annual budget approved by our Board of Directors for the following criteria: revenues; pre-tax income from operations (excluding any non-recurring and/or extraordinary charges or credits); free cash flow (excluding any equity and/or debt changes); and other non-financial subjective criteria determined by the Board of Directors. For 2016, no specific quarterly performance objectives were established for the named executive officers' bonus opportunities. Instead, the quarterly bonus plan achievement and payout was determined by our Board of Directors based on their subjective evaluation of our overall performance relative to the operating plan and of the named executive officers' individual performance. Our Board of Directors determined none of the named executive officers were entitled to receive a bonus payment in 2016 under this program. Mr. Kim did not receive a bonus for 2016 due to the fact his employment commenced upon consummation of the Merger in September 2016.

### ***Transaction Bonuses***

On September 9, 2016, in connection with the consummation of the Merger, we entered into transaction bonus agreements with each of Messrs. Norrod and Misaka pursuant to which these executives were entitled to receive a one-time cash bonus in connection with the successful consummation of the Merger. The amount of the cash bonus payable under the transaction bonus agreements was \$1,000,000 for Mr. Norrod and \$500,000 for Mr. Misaka. Mr. Norrod was paid \$500,000 in October 2016 and \$500,000 in January 2017. Mr. Misaka was paid \$500,000 in March 2017.

### ***Long-Term Equity Incentives***

The goal of our long-term, equity-based incentive awards is to align the interests of employees with stockholders and to provide each employee with an incentive to manage our company from the perspective of an owner with an equity stake in the business. Because vesting is based on continued employment, our equity-based incentives also facilitate the retention of employees through the term of the awards. In determining the size of the long-term equity incentives to be awarded to employees, we take into account a number of internal factors, such as the relative job scope, individual performance history, prior contributions, the size of prior grants and competitive market data for our peer group of companies. Based upon these factors, the Compensation Committee determines the size of the long-term equity incentives at levels it considers appropriate to create a meaningful opportunity for reward predicated on the creation of long-term stockholder value. The Compensation Committee does not apply any set formula or consider any specific weighting of these factors in setting the awards for a year. Rather, the level of awards is determined solely in the discretion of the Compensation Committee, taking into account those factors and the recommendations of management.

To reward and retain employees in a manner that best aligns employees' interests with stockholders' interests, we use stock options as the primary incentive vehicle for long-term compensation opportunities. We believe that stock options are an effective tool for meeting our compensation goal of increasing long-term stockholder value by tying the value of the stock options to our future performance. Because employees are able to profit from stock options only if our stock price increases in value over the stock option's exercise price, we believe the options provide effective incentives to employees to achieve increases in the value of

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our stock. To the extent they are awarded in any given year, annual grants of options have historically been approved by the Board of Directors at its regularly scheduled meeting in August and had a grant date effective as of the first day of the September following the Board of Director's meeting. While historically the vast majority of stock option awards to our employees have been made pursuant to our annual grant program, the Compensation Committee retains discretion to make stock option awards to employees at other times, including in connection with the hiring of an employee, the promotion of an employee, to reward an employee, for retention purposes or for other circumstances recommended by management or the Compensation Committee. The exercise price of any such grant is the fair market value of our common stock on the grant date. In addition, our stock option programs are broad-based.

In 2016, in lieu of their typical annual awards, the named executive officers were granted stock options in connection with the successful completion of the Merger. These grants are described in the table under "2016 Grants of Plan-Based Awards" below. The Compensation Committee has not granted, but they may in the future grant, equity compensation awards to employees in anticipation of the release of material nonpublic information that is likely to result in changes to the price of our common stock, such as a significant positive or negative earnings announcement. Similarly, the Compensation Committee has not timed, nor does it intend in the future to time, the release of material nonpublic information based on equity award grant dates.

### ***Retirement Savings***

Our employees are eligible to participate in our 401(k) plan. Each employee may make before-tax contributions of up to 75% of their base salary, up to the limits imposed by the Code. We provide this plan to help our employees save some amount of their cash compensation for retirement in a tax efficient manner. We currently do not provide a matching contribution under our 401(k) plan, nor do we offer other retirement benefits.

### ***Health and Welfare Benefits***

The establishment of competitive benefit packages for our employees is an important factor in attracting and retaining highly qualified personnel. Our named executive officers are eligible to participate in all of our employee benefit plans, such as medical, dental, vision, group life and disability insurance, in each case on the same basis as other employees. We believe that these health and welfare benefits help ensure that the company has a productive and focused workforce.

### ***Tax Deductibility of Executive Compensation***

Limitations on the deductibility of compensation may occur under Section 162(m) of the Code, which generally limits the tax deductibility of compensation paid by a public company to its chief executive officer and certain other highly compensated executive officers to \$1 million, unless such compensation is performance based and certain specific and detailed criteria are satisfied. Tax deductibility is not a primary objective of our compensation programs, particularly in light of our company's substantial net operating losses. We believe that achieving our compensation objectives set forth above is more important than the benefit of tax deductibility, and we reserve the right to maintain flexibility in how we compensate our executive officers that may result in limiting the deductibility of amounts of compensation from time to time.

### ***Relationship Between Compensation and Risk***

In early 2017, management assessed our compensation policies and programs for all employees for purposes of determining the relationship of such policies and programs and the enterprise risks faced by us. After that assessment, management determined that none of our compensation policies or programs create risks that are reasonably likely to have a material adverse effect on us. Management reported the results of its assessment to the Compensation Committee.

### **Compensation Committee Report**

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis with management. Based on its review and discussions with management, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this report.

**Respectfully Submitted by the Compensation Committee**

Min Woo Nam (Chairman)  
Michael Connors  
Sung-Bin Park

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*\* The information contained in this Compensation Committee Report shall not be deemed to be "soliciting material," to be "filed" with the SEC or be subject to Regulation 14A or Regulation 14C or to the liabilities of Section 18 of the Exchange Act,*

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and shall not be deemed to be incorporated by reference into any filing of DZS, except to the extent that DZS specifically incorporates it by reference into a document filed under the Securities Act of 1933 or the Exchange Act .

**Compensation Committee Interlocks and Insider Participation**

The members of the Compensation Committee for the 2016 fiscal year were C. Richard Kramlich and Robert Dahl until the consummation of the Merger on September 9, 2016. Effective as of September 9, 2016, (1) the size of the Compensation Committee was increased to three members, (2) Mr. Dahl resigned from his position as a director and member of the Compensation Committee, (3) Min Woo Nam and Sung-Bin Park were appointed to fill the resulting vacancies on the committee and (4) Mr. Nam was appointed Chair of the Compensation Committee. All members of the Compensation Committee during 2016 other than Mr. Nam were independent directors, and none of them were our officers or employees or former officers or employees. During 2016, none of our executive officers served on the compensation committee (or equivalent), or the board of directors, of another entity whose executive officer(s) served on the Compensation Committee or Board of Directors.

**Summary Compensation Table**

The following table sets forth the compensation earned during the years ended December 31, 2016, 2015 and 2014 by the individuals serving as our Chief Executive Officer (or our Co-Chief Executive Officers, as applicable) and our Chief Financial Officer during such years. We refer to these executive officers throughout this report as our “named executive officers.”

Name and Principal Position	Year	Salary (\$)	Bonus (\$) (1)	Stock Awards(\$)	Option Awards (\$) (2)	Non - Equity Incentive Plan Compensation (\$)	Change in Pension Value and Non-qualified Deferred Compensation Earnings(\$)	All Other Compensation (\$)	Total (\$)
Il Yung Kim	2016	113,711 (5)	—	—	739,907	—	—	33,095 (6)	886,713
President, Chief Executive Officer and Acting Chief Financial Officer (4)									
James Norrod	2016	320,000	1,000,000	—	707,535	—	—	71,380 (7)	2,098,915
Former Co-Chief Executive Officer (4)									
	2015	396,923	100,000	—	—	—	—	86,248 (8)	583,171
	2014	172,306	—	—	2,826,383	—	—	49,738	3,048,427
Kirk Misaka	2016	292,000	500,000	—	411,850	—	—	20,954 (9)	1,224,804
Corporate Treasurer and Secretary and Former Chief Financial Officer (4)									
	2015	362,192	267,237	—	—	—	—	17,631 (10)	647,060
	2014	365,000	—	—	—	—	—	15,039	380,039

- (1) Amounts reflect, for 2015, discretionary bonuses and, for 2016, Merger consummation bonuses paid to our named executive officers. On September 9, 2016, in connection with the consummation of the Merger, we entered into transaction bonus agreements with each of Messrs. Norrod and Misaka pursuant to which these executives were entitled to receive a one-time cash bonus in connection with the successful consummation of the Merger. The amount of the cash bonus payable under the transaction bonus agreements was \$1,000,000 for Mr. Norrod and \$500,000 for Mr. Misaka. Mr. Norrod was paid \$500,000 in October 2016 and \$500,000 in January 2017. Mr. Misaka was paid \$500,000 in March 2017.
- (2) This column represents the grant date fair value of the option awards granted during the applicable fiscal year to our named executive officers, calculated in accordance with Accounting Standards Codification Topic 718, Compensation -*Stock Compensation* , or ASC Topic 718. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For additional information on the valuation assumptions used in the calculation of these amounts, refer to Note 9 to the consolidated financial statements set forth in Part II, Item 8 of this report.
- (3) Unless otherwise provided, amounts reflected in this column represent medical benefit premiums, contributions to health savings accounts and life insurance premiums paid by us on behalf of the executive for the applicable fiscal year.
- (4) As part of the management transition in connection with the first anniversary of the Merger, in September 2017, Messrs. Norrod and Misaka stepped down from their roles as Co-Chief Executive Officer and Chief Financial Officer, respectively, and Mr. Kim was appointed President, Chief Executive Officer and Acting Chief Financial Officer. Mr.

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Misaka has agreed to remain in our employ as Corporate Treasurer and Secretary for a transitional period to assist with the transition of his responsibilities.

- (5) For Mr. Kim, for the period from September 9, 2016 through December 31, 2016, includes (a) \$32,000 paid in U.S. Dollars and (b) \$83,711 paid in Korean Won (with the KRW 95,640,000 paid to Mr. Kim converted to U.S. Dollars using an average exchange rate of 1,155 KRW:1.00 USD (which represents the average of the actual exchange rates on the date of each payment to Mr. Kim for the period from September 23, 2016 through December 23, 2016)).
- (6) For Mr. Kim, includes (a) \$16,480 in housing allowance, (b) \$677 in medical insurance paid by us on Mr. Kim's behalf, (c) \$78 in other insurance premiums (including dental, vision, life insurance, short and long term disability) paid by us on his behalf and (d) \$15,860 in fees to obtain immigration visas paid by us on his behalf. DZS entered into a lease agreement on October 10, 2016 for a period on one year for a home in Oakland, California in which Mr. Kim resides while conducting his duties in Oakland, California. The lease expense is \$6,200 per month, including utilities and expenses. Mr. Kim pays \$200 per month to DZS for the difference between his housing allowance and the lease cost per the terms of his employment agreement. No payments were made to Mr. Kim in 2016 for his relocation from Korea to Oakland, California.
- (7) For Mr. Norrod, includes (a) \$24,877 for reimbursement of housing expenses in Oakland, California, (b) \$27,419 for reimbursement of airfare for travel home from the San Francisco Bay Area to visit his family, (c) \$17,606 in medical insurance premiums paid by us on his behalf and (d) \$1,478 in other insurance premiums (including dental, vision, life insurance, short and long term disability) paid by us on his behalf.
- (8) For Mr. Norrod, includes (a) \$46,021 for reimbursement of housing expenses in Oakland, California, (b) \$22,245 for reimbursement of airfare for travel home from the San Francisco Bay Area to visit his family, (c) \$15,017 in medical insurance premiums paid by us on his behalf, (d) \$1,465 in other insurance premiums including dental, vision, life insurance, short and long term disability paid by us on his behalf.
- (9) For Mr. Misaka, includes (a) \$15,923 in medical insurance premiums paid by us on his behalf, (b) \$2,700 in contributions made to his health savings account and (c) \$2,331 in other insurance premiums (including dental, vision, life insurance, short and long term disability) paid by us on his behalf.
- (10) For Mr. Misaka, includes (a) \$13,585 in medical insurance premiums paid by us on his behalf, (b) \$1,700 in contributions made to his health savings account and (c) \$2,346 in other insurance premiums (including dental, vision, life insurance, short and long term disability) paid by us on his behalf.

## 2016 Grants of Plan-Based Awards

The following table sets forth summary information regarding grants of plan-based awards made to our named executive officers during the year ended December 31, 2016.

Name	Grant Date	Estimated Possible Payouts under Non-Equity Incentive Plan Awards Target (\$)	All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Option Awards: Number of Securities Underlying Options (#) (1)	Exercise or base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards (\$)
Il Yung Kim	9/9/2016	400,000	—	200,000	5.95	\$ 739,907
James Norrod	9/9/2016	400,000	—	200,000	5.95	\$ 707,535
Kirk Misaka	9/9/2016	200,000	—	100,000	5.95	\$ 411,850

(1) Amounts presented have been adjusted to reflect the one-for-five reverse stock split effected on February 28, 2017. The options granted to Mr. Kim have a term of ten years from the date of grant and vest over four years with the first 25% vesting on September 9, 2017 and the remaining shares vesting in 36 equal monthly installments over the course of the remaining three years thereafter. The options granted to Messrs. Norrod and Misaka have a term of ten years from the date of grant and vest and become exercisable in 48 equal monthly installments over the course of four years from the date of grant. The vesting of the stock options held by our named executive officers may accelerate under certain circumstances as described below under "Potential Payments Upon Termination."

## Outstanding Equity Awards at 2016 Fiscal Year End

The following lists all outstanding equity awards held by our named executive officers as of December 31, 2016.

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Name	Option Awards (1)						
	Number of Securities Underlying Unexercised Options (#) Exercisable	(2)	Number of Securities Underlying Unexercised Options (#) Unexercisable	(2)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#)	Option Exercise Price \$(2)	Option Expiration Date
Il Yung Kim	—		200,000	(3)		\$ 5.95	9/9/2027
James Norrod	12,499		187,500		—	5.95	9/9/2027
Kirk Misaka	17,999		—		—	6.16	9/1/2017
	17,999		—		—	7.55	9/1/2018
	6,249		93,751		—	5.95	9/9/2027

- (1) Except as otherwise described, all options have a term of ten years from the date of grant and vest and become exercisable in 48 equal monthly installments over the course of four years from the date of grant. The vesting of the stock options held by our named executive officers may accelerate under certain circumstances as described below under “Potential Payments Upon Termination.”
- (2) Amounts presented have been adjusted to reflect the one-for-five reverse stock split effected on February 28, 2017.
- (3) The options have a term of ten years from the date of grant and vest over four years with the first 25% vesting on September 9, 2017 and the remaining shares vesting in 36 equal monthly installments over the course of the remaining three years thereafter.

### Option Exercises and Stock Vested in 2016

None of our named executive officers exercised options or had stock awards vest in 2016.

### Pension Benefits

None of our named executive officers participates in or has account balances in qualified or non-qualified defined benefit plans sponsored by us.

### Nonqualified Deferred Compensation

None of our named executive officers participates in or has account balances in qualified or non-qualified contribution plans or other deferred compensation plans maintained by us.

### Potential Payments Upon Termination

We have employment, severance, change of control or release agreements with certain of the named executive officers, as described below.

#### *Employment Agreement with Il Yung Kim*

In September 2016, we entered into an employment agreement with Mr. Kim. This agreement had an initial term expiring on September 9, 2017 and was automatically extended for an additional year on such date and may be automatically extended on each subsequent anniversary of the initial expiration date. Prior to the management transition in September 2017, Mr. Kim served as Co-Chief Executive Officer. As part of this management transition, effective September 11, 2017, the Board of Directors appointed Mr. Kim to serve as our President, Chief Executive Officer and Acting Chief Financial Officer.

During the term, Mr. Kim will perform the responsibilities as President, Chief Executive Officer and Acting Chief Financial Officer, reporting to the Board of Directors of the company, with such duties and responsibilities as are commensurate with such positions. Under the employment agreement, Mr. Kim’s annual salary was initially \$320,000, which automatically increased to \$400,000 on April 1, 2017, and will be reviewed on at least an annual basis by the Compensation Committee. In addition, Mr. Kim is eligible to participate in a performance-based annual bonus program, to be earned and paid quarterly in equal installments. Mr. Kim’s target bonus is equal to 100% of his annual salary. Mr. Kim is entitled to \$30,000 in relocation assistance to relocate his principal place of residence to the San Francisco Bay Area. Mr. Kim will also be reimbursed a maximum of \$6,000 per month for housing allowance. Mr. Kim is also eligible to participate in all health benefits, insurance programs, pension and retirement plans and other employee benefit and compensation arrangements generally available to our other officers.

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Under Mr. Kim's employment agreement, Mr. Kim will receive certain compensation in the event that his employment is terminated by us for any reason other than by reason of Mr. Kim's death, disability, his termination for "cause" (as defined below) or expiration of the term of his employment agreement, or if Mr. Kim resigns for "good reason" (as defined below) (which we refer to as a Qualifying Termination), Mr. Kim will be entitled to receive a lump sum payment equal to his annual salary as in effect immediately prior to the date of termination (or, if greater, \$400,000). If termination occurs after the first anniversary of his employment agreement the lump sum payment will be reduced to 50% of his annual salary (or, if greater, \$200,000). In addition, in the event of Mr. Kim's Qualifying Termination following a change in control (as defined in our 2001 Plan), the vesting and exercisability of his stock options will accelerate on the date of termination. In addition, Mr. Kim is eligible for up to \$30,000 reimbursement of expenses for relocation to his new principal place of residence.

Assuming a hypothetical Qualifying Termination of Mr. Kim's employment on December 31, 2016, the last day of our 2016 fiscal year, we would have been obligated to pay Mr. Kim a lump sum payment of \$400,000. If a change in control had occurred on December 31, 2016 and, in connection with such change in control, Mr. Kim experienced a Qualifying Termination, we would have been obligated to pay Mr. Kim a lump sum payment of \$400,000, up to \$30,000 reimbursement of expenses for relocation to his new principal place of residence, and the vesting and exercisability of his stock options would have accelerated on the date of termination, which stock options would have had no value as of December 31, 2016, due to the fact that the closing price per share of our common stock on December 30, 2016 (the last trading day of 2016) was \$5.00, which was lower than the exercise price per share of Mr. Kim's stock options.

### ***Employment Agreement with James Norrod***

In September 2016, we entered into an amended and restated employment agreement with Mr. Norrod. The amended and restated agreement replaced the previous employment agreement dated July 14, 2014 with Mr. Norrod.

Mr. Norrod's employment agreement had an initial term expiring on September 9, 2017 and was eligible for automatic extension for an additional year and further extension on each subsequent anniversary of the initial expiration date. Pursuant to the management transition in September 2017, Mr. Norrod stepped down from his position as Co-Chief Executive Officer and a director of the company effective September 11, 2017. Mr. Norrod entered into a release agreement in connection with his resignation from his management roles and employment with the company, which is described below under "Release Agreements with Messrs. Norrod and Misaka."

During the term of his employment agreement, Mr. Norrod performed his responsibilities as Co-Chief Executive Officer, reporting to the Board of Directors of the company, with such duties and responsibilities as were commensurate with the position. Under the employment agreement, Mr. Norrod's annual salary was initially \$320,000, which automatically increased to \$400,000 on April 1, 2017, and was reviewed on at least an annual basis by the Compensation Committee. In addition, Mr. Norrod was eligible to participate in a performance-based annual bonus program, to be earned and paid quarterly in equal installments. Mr. Norrod's target bonus was equal to 100% of his annual salary. Mr. Norrod was also eligible to participate in all health benefits, insurance programs, pension and retirement plans and other employee benefit and compensation arrangements generally available to our other officers.

Under Mr. Norrod's amended and restated employment agreement, Mr. Norrod was eligible to receive certain compensation in the event that his employment was terminated by us for any reason other than by reason of Mr. Norrod's death, disability, his termination for "cause" (as defined below) or expiration of the term of his employment agreement, or if Mr. Norrod resigned for "good reason" (as defined below) (which we refer to as a Qualifying Termination), Mr. Norrod was entitled to receive a lump sum payment equal to his annual salary as in effect immediately prior to the date of termination (or, if greater, \$400,000). If termination occurred after the first anniversary of his employment agreement, the lump sum payment would be reduced to 50% of his annual salary (or, if greater, \$200,000). In addition, in the event of Mr. Norrod's Qualifying Termination following a change in control (as defined in our Amended and Restated 2001 Stock Incentive Plan), the vesting and exercisability of his stock options would have accelerated on the date of termination.

Assuming a hypothetical Qualifying Termination of Mr. Norrod's employment on December 31, 2016, the last day of our 2016 fiscal year, we would have been obligated to pay Mr. Norrod a lump sum payment of \$400,000. If a change in control had occurred on December 31, 2016 and, in connection with such change in control, Mr. Norrod experienced a Qualifying Termination, we would have been obligated to pay Mr. Norrod a lump sum payment of \$400,000 and the vesting and exercisability of his stock options would have accelerated on the date of termination, which stock options would have had no value as of December 31, 2016 due to the fact that the closing price per share of our common stock on December 30, 2016 (the last trading day of 2016) was \$5.00, which was lower than the exercise price per share of Mr. Norrod's stock options.

### ***Employment Agreement with Kirk Misaka***

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In September 2016, we entered into an employment agreement with Mr. Misaka. This agreement had an initial term expiring on September 9, 2017 and was eligible for automatic extension for an additional year and further extension on each subsequent anniversary of the initial expiration date. Pursuant to the management transition in September 2017, Mr. Misaka stepped down from his position as Chief Financial Officer of the company effective September 11, 2017. Mr. Misaka agreed to remain in the employ of the company as our Corporate Treasurer and Secretary for a transitional period to assist with the transition of his responsibilities, with the same base salary as was in effect prior to the management transition, and continued vesting of his outstanding stock options during the term of his employment, although his continued employment will no longer be governed by the terms of his employment agreement, which was terminated effective September 11, 2017. Mr. Misaka entered into a release agreement in connection with his resignation from his management role, which is described below under "Release Agreements with Messrs. Norrod and Misaka."

During the term of his employment agreement, Mr. Misaka performed the responsibilities as Chief Financial Officer, reporting to our Chief Executive Officer (or the Co-Chief Executive Officers, as applicable), with such duties and responsibilities as were commensurate with the position. Under the employment agreement, Mr. Misaka's annual salary was initially \$292,000, which automatically increased to \$365,000 on April 1, 2017, and was reviewed on at least an annual basis by the Compensation Committee. In addition, Mr. Misaka was eligible to participate in a performance-based annual bonus program, to be earned and paid quarterly in equal installments. Mr. Misaka's target bonus was equal to 100% of his annual salary. Mr. Misaka was also eligible to participate in all health benefits, insurance programs, pension and retirement plans and other employee benefit and compensation arrangements generally available to our other officers.

Under Mr. Misaka's employment agreement, Mr. Misaka was eligible to receive certain compensation in the event that his employment was terminated by us for any reason other than by reason of Mr. Misaka's death, disability, his termination for "cause" (as defined below) or expiration of the term of his employment agreement, or if Mr. Misaka resigned for "good reason" (as defined below) (which we refer to as a Qualifying Termination), Mr. Misaka was entitled to receive a lump sum payment equal to his annual salary as in effect immediately prior to the date of termination (or, if greater, \$365,000). If termination occurred after the first anniversary of his employment agreement, the lump sum payment would be reduced to 50% of his annual salary (or, if greater, \$182,500). In addition, in the event of Mr. Misaka's Qualifying Termination following a change in control (as defined in our Amended and Restated 2001 Stock Incentive Plan), the vesting and exercisability of his stock options would have accelerated on the date of termination. The employment agreement termination of benefits replaced the severance agreement between the company and Mr. Misaka dated August 2012.

Assuming a hypothetical Qualifying Termination of Mr. Misaka's employment on December 31, 2016, the last day of our 2016 fiscal year, we would have been obligated to pay Mr. Misaka a lump sum payment of \$365,000. If a change in control had occurred on December 31, 2016 and, in connection with such change in control, Mr. Misaka experienced a Qualifying Termination, we would have been obligated to pay Mr. Misaka a lump sum payment of \$365,000 and the vesting and exercisability of his stock options would have accelerated on the date of termination, which stock options would have had no value as of December 31, 2016 due to the fact that the closing price per share of our common stock on December 30, 2016 (the last trading day of 2016) was \$5.00, which was lower than the exercise price per share of Mr. Misaka's stock options.

### ***Defined Terms in Employment Agreements***

For purposes of the employment agreements, "cause" is generally defined to include: (1) the executive's willful or continued failure to substantially perform his duties with the company, or any failure to carry out, or comply with, in any material respect any lawful and reasonable directive of the Board of Directors consistent with the terms of his employment agreement, which failure continues for 15 days following the executive's receipt of written notice from the Board of Directors, (2) the executive's conviction of, guilty plea to, or entry of a nolo contendere plea to a felony or a crime of moral turpitude or commission of an act of fraud, embezzlement or misappropriation against us, (3) the executive's willful or reckless misconduct that has caused or is reasonably likely to cause demonstrable and material financial injury to the company, or (4) the executive's willful and material breach of his employment agreement, which breach remains uncured for 15 days following his receipt of written notice by the Board of Directors.

For purposes of the employment agreements, "good reason" is generally defined to include the occurrence of any of the following events without his consent: (1) a material diminution in the executive's base compensation, (2) a material diminution in the executive's authority, duties or responsibilities, (3) a material change in the geographic location at which the executive must perform his duties, or (4) any other action or inaction that constitutes a material breach by the company of its obligations under the employment agreement.

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### **Release Agreements with Messrs. Norrod and Misaka**

In connection with their resignations from their management roles, and Mr. Norrod's termination of employment, Messrs. Norrod and Misaka entered into release agreements with the company. Pursuant to his release agreement, Mr. Norrod is entitled to receive a lump sum cash payment of \$300,000, continued health benefits at our expense for a period of six months following his termination of employment and an extension of the period of time to exercise his vested stock options through September 11, 2018. Pursuant to his release agreement, Mr. Misaka is entitled to receive a lump sum cash payment of \$232,500 and an extension of the period of time to exercise his vested stock options through September 11, 2018.

### **Director Compensation**

Directors who are employees of the company, such as Il Yung Kim, do not receive any additional compensation for their services as directors.

On September 9, 2016, our Board of Directors adopted a new compensation program for non-employee directors. Under our new non-employee director compensation program, each non-employee director is eligible to receive an annual cash retainer of \$20,000, but may elect to receive an equivalent amount of fully vested shares of our common stock, in lieu of the cash retainer, based on the fair market value of the shares on the date the cash retainer would otherwise be paid. To align the interests of directors with the long-term interests of stockholders, each non-employee director is also entitled to receive an annual equity grant in the form of a stock option to purchase 10,000 shares at an exercise price equal to the fair market value of our common stock on the date of grant. In lieu of this stock option, each non-employee director may elect to receive the annual equity grant in the form of 3,000 restricted stock units. The annual equity grant of stock options vests in 48 equal monthly installments over the course of four years. The annual equity grant of restricted stock units vests in four equal annual installments over the course of four years. In addition, the chair of the Audit Committee receives a \$4,000 cash payment per committee meeting attended, and each of the other committee members receives a \$2,000 cash payment per committee meeting attended. Non-employee directors are entitled to reimbursement of reasonable out-of-pocket expenses incurred attending Board and committee meetings, and in connection with Board related activities. The following table sets forth the compensation earned during the year ended December 31, 2016 by each of our non-employee directors.

Name	Fees Earned or Paid in Cash (\$) (1)	Stock Awards (\$) (2)	Option Awards (\$) (3)	Non-Equity Incentive Plan Compensation (\$) (4)	Change in Pension Value and Non-Qualified Deferred Compensation Earnings (\$) (5)	All Other Compensation (\$) (6)	Total (\$)
Michael Connors (5)	30,000	—	42,501	—	—	—	72,501
Robert Dahl (6)	12,000	—	—	—	—	—	12,000
Morteza Ejabat (7)	—	640,000	—	—	—	—	640,000
Seong Gyun Kim (8)	24,000	17,850	—	—	—	—	41,850
C. Richard Kramlich (9)	8,000	17,850	—	—	—	—	25,850
Min Woo Nam (10)	20,000	—	37,822	—	—	—	57,822
Sung-Bin Park (11)	22,000	—	37,822	—	—	—	59,822
Mahvash Yazdi (12)	20,000	—	—	—	—	—	20,000

- (1) As described above, a director may elect to receive an equivalent amount of fully vested shares of our common stock in lieu of an annual cash retainer. The amounts in this column include the annual retainer and committee fees paid in cash. No fully vested shares of our common stock were issued to any non-employee directors in lieu of their regular cash retainer during 2016.
- (2) This column represents the grant date fair value of the equity awards granted on September 9, 2016 to each of the non-employee directors who elected to receive their annual equity grant in the form of restricted stock units during 2016 or, for Mr. Ejabat, the shares of our common stock issued to him in January 2016 as consideration for transition services, as calculated in accordance with ASC Topic 718. For these awards, the grant date fair value is calculated using the closing price of our common stock on the grant date as if these awards were vested and issued on the grant date. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For additional information on the valuation assumptions used in the calculation of these amounts, refer to Note 9 to the consolidated financial statements set forth in Part II, Item 8 of this report. Amounts presented have been adjusted to reflect the one-for-five reverse stock split effected on February 28, 2017.
- (3) This column represents the grant date fair value of the option awards granted on September 9, 2016 to each of the non-employee directors who elected to receive their annual equity grant in the form of stock options during 2016, as calculated

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in accordance with ASC Topic 718. Pursuant to SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For additional information on the valuation assumptions used in the calculation of these amounts, refer to Note 9 to the consolidated financial statements set forth in Part II, Item 8 of this report. Amounts presented have been adjusted to reflect the one-for-five reverse stock split effected on February 28, 2017.

- (4) The aggregate amount of perquisites and other personal benefits, securities or property provided to each non-employee director, valued on the basis of aggregate incremental cost to the company, was less than \$10,000.
- (5) As of December 31, 2016, Dr. Connors had a total of 72,000 options and held no unvested stock awards.
- (6) In order to facilitate the role of Mr. Dahl as Chair of the Audit Committee prior to the Merger and to provide us with greater access to him as Chair, we provided Mr. Dahl with access to approximately 240 square feet of office space. Mr. Dahl owned and maintained separate phone, fax, server and computer systems. We did not incur any incremental costs in connection with the provision of this office space. Mr. Dahl resigned from his position as a director and Chair of the Audit Committee as of September 9, 2016. As of December 31, 2016, Mr. Dahl held no stock options or unvested stock awards.
- (7) Mr. Ejabat resigned from his position as Executive Chairman of the Board of Directors effective as of January 31, 2016. As of December 31, 2016, Mr. Ejabat had a total of 589,999 stock options. Mr. Ejabat provided transitional services to DZS for a period of one year following his resignation. In consideration of such transitional services, in February 2016, we issued to him 100,000 vested shares of our common stock. As of December 31, 2016, Mr. Ejabat held no stock options or unvested stock awards.
- (8) As of December 31, 2016, Mr. Kim held no stock options and a total of 3,000 restricted stock units.
- (9) Effective September 11, 2017, Richard Kramlich resigned from the Board of Directors to focus on his other business endeavors. As of December 31, 2016, Mr. Kramlich held a total of 30,210 stock options and 3,000 restricted stock units. In connection with Mr. Kramlich's resignation, the Board of Directors approved the extension of time for him to exercise his vested stock options through September 11, 2018.
- (10) As of December 31, 2016, Mr. Nam held a total of 10,000 stock options and no unvested stock awards.
- (11) As of December 31, 2016, Mr. Park held a total of 10,000 stock options and no unvested stock awards.
- (12) Ms. Yazdi resigned from her position as a director of DZS as of September 9, 2016. As of December 31, 2016, Ms. Yazdi held a total of 10,000 stock options and no unvested stock awards.

## **ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

### **Security Ownership of Certain Beneficial Owners and Management**

The following table sets forth information known to us regarding ownership of our common stock on September 15, 2017 by (1) each person who beneficially owned more than 5% of our common stock, (2) each current director, (3) each of our named executive officers and (4) all directors, named executive officers and their affiliates as a group. We are not aware of any arrangements, including any pledge of our common stock that could result in a change in control.

<b>Name of Beneficial Owner (1)</b>	<b>Number of Shares Beneficially Owned (2)</b>		<b>Percent Owned (3)</b>
DASAN Networks, Inc.	9,493,015	(4)	57.9%
New Enterprise Associates	956,254	(5)	5.8%
Il Yung Kim	58,332	(6)	*
James Norrod	70,324	(7)	*
Kirk Misaka	136,472	(8)	*
Min Woo Nam	2,914	(9)	*
Michael Connors	78,802	(10)	*
Seong Gyun Kim	750	(11)	*
Sung-Bin Park	2,914	(12)	*
All directors, named executive officers and their affiliates as a group (8 persons)	10,802,025		65.1%

\* Denotes less than 1%.

- (1) Under the rules of the SEC, a person is the beneficial owner of securities if that person has sole or shared voting or investment power. Except as indicated in the footnotes to this table and subject to applicable community property laws, to our knowledge, the persons named in the table have sole voting and investment power with respect to all

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shares of common stock beneficially owned. Unless otherwise indicated, the address for each person or entity named below is c/o DASAN Zhone Solutions, Inc., 7195 Oakport Street, Oakland, California 94621.

- (2) In computing the number of shares beneficially owned by a person named in the table and the percentage ownership of that person, shares of common stock that such person had the right to acquire within 60 days after September 15, 2017 are deemed outstanding, including without limitation, upon the exercise of options or vesting of restricted stock units. These shares are not, however, deemed outstanding for the purpose of computing the percentage ownership of any other person.
- (3) For each person included in the table, percentage ownership is calculated by dividing the number of shares beneficially owned by such person by the sum of (a) 16,385,455 shares of common stock outstanding on September 15, 2017 plus (b) the number of shares of common stock that such person had the right to acquire within 60 days after September 15, 2017.
- (4) The address of DASAN Networks, Inc. is DASAN Tower, 49, Daewangpangyo-ro 644 Beon-gil Budang-gu, Sungnam-si, Gyeonggi-do, 463-400, Korea.
- (5) Based solely on information contained in a Schedule 13D/A filed with the SEC on April 21, 2016 (as adjusted for the one-for-five reverse stock split of our common stock effected in February 2017), consists of (a) 72,685 shares held by New Enterprise Associates VIII, Limited Partnership, (b) 51,767 shares held by New Enterprise Associates 8A, Limited Partnership, (c) 357,613 shares held by New Enterprise Associates 9, Limited Partnership and (d) 474,189 shares held by New Enterprise Associates 10, Limited Partnership. Each separate New Enterprise Associates entity disclaims beneficial ownership over shares with respect to which it is not the direct holder, except to the extent of its pecuniary interest therein. The address of the entities affiliated with New Enterprise Associates is 1954 Greenspring Drive, Suite 600, Timonium, MD 21093.
- (6) Consists of 58,332 shares subject to stock options exercisable by Mr. Kim within 60 days after September 15, 2017.
- (7) Consists of (a) 12,000 shares held by Mr. Norrod, and (b) 58,324 shares subject to options exercisable by Mr. Norrod within 60 days after September 15, 2017.
- (8) Consists of (a) 89,309 shares held by Mr. Misaka, and (b) 47,163 shares subject to options exercisable by Mr. Misaka within 60 days after September 15, 2017.
- (9) Consists of 2,914 shares subject to options exercisable by Mr. Nam within 60 days after September 15, 2017.
- (10) Consists of (a) 25,565 shares held by Dr. Connors, (b) 3,333 shares held by Suaimhneas LLC, of which Dr. Connors is the sole manager and his adult children are the owners, and (c) 49,904 shares subject to options exercisable by Dr. Connors within 60 days after September 15, 2017.
- (11) Consists of 750 shares subject to options exercisable by Mr. Kim within 60 days after September 15, 2017.
- (12) Consists of 2,914 shares subject to options exercisable by Mr. Park within 60 days after September 15, 2017.
- (13) Includes 219,551 shares subject to options exercisable within 60 days after September 15, 2017.

## Equity Compensation Plan Information

The following table provides information as of December 31, 2016 with respect to shares of our common stock that may be issued under existing equity compensation plans. The table does not include information with respect to shares subject to outstanding options granted under equity compensation arrangements assumed by us in connection with mergers and acquisitions of the companies that originally granted those options.

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants, and rights (1)(2)	(b) Weighted average exercise price of outstanding options, warrants and rights(2)	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))(2)
Equity compensation plans approved by security holders	910,245	\$ 6.84	120,104 (3)(4)
Equity compensation plans not approved by security holders	—	—	—

(1) This column includes 9,302 shares of unvested restricted stock and/or restricted stock units outstanding as of December 31, 2016 under the 2001 Plan, and does not reflect options assumed in mergers and acquisitions where the plans governing the options will not be used for future awards. As of December 31, 2016, a total of 234,554 shares of our common stock were issuable upon exercise of outstanding options under those assumed arrangements. The weighted average exercise price of those outstanding options is \$8.34 per share.

(2) Amounts presented have been adjusted to reflect the one-for-five reverse stock split effected on February 28, 2017.

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- (3) Includes shares available for future issuance under the Zhone Technologies, Inc. 2002 Employee Stock Purchase Plan. As of December 31, 2016, 113,845 shares of common stock were available for future issuance under the plan.
- (4) Under the 2001 Plan, the number of shares available for issuance under the plan will be increased automatically on January 1 of any year in which the number of shares available for issuance is less than 5% of the total number of outstanding shares on such date. In any such case, the increase is equal to an amount such that the aggregate number of shares available for issuance under the plan equals the least of (a) 5% of the total number of outstanding shares on such date, (b) 1,000,000 shares, or (c) such other number of shares as determined by the Board. The 2001 Plan expired in March 2017.

## **ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

### **Review and Approval of Related Party Transactions**

All relationships and transactions in which the company and our directors and executive officers or their immediate family members are participants are reviewed by our Audit Committee or another independent body of the Board of Directors, such as the independent and disinterested members of the Board of Directors. As set forth in the Audit Committee charter, the members of the Audit Committee, all of whom are independent directors, review and approve related party transactions for which such approval is required under applicable law, including SEC and Nasdaq rules. In the course of its review and approval or ratification of a disclosable related party transaction, the Audit Committee or the independent and disinterested members of the Board of Directors may consider:

- the nature of the related person's interest in the transaction;
- the material terms of the transaction, including, without limitation, the amount and type of transaction;
- the importance of the transaction to the related person;
- the importance of the transaction to the company;
- whether the transaction would impair the judgment of a director or executive officer to act in the best interest of the company; and
- any other matters the Audit Committee deems appropriate.

### **Related Party Transactions**

As discussed above under "Corporate Governance Principles and Board Matters - Board Structure" in Part III, Item 10 of this report, and in accordance with the terms of the Merger Agreement, on September 9, 2016, we entered into a stockholder agreement with DNI (the holder of 58% of the outstanding shares of our common stock), pursuant to which DNI has agreed, on the terms set forth therein, to vote its shares of our common stock until September 9, 2018 (1) in favor of the election of each person who is nominated by the Board of Directors for election to the Board in accordance with our bylaws and (2) against the removal of any such director unless such removal is recommended by a resolution approved by the affirmative vote of at least two-thirds of the entire Board of Directors.

In connection with the Merger, on September 9, 2016, we also entered into a lock-up agreement with each of our directors and executive officers and certain of our significant stockholders (including DNI), pursuant to which such persons and stockholders agreed not to offer, sell or otherwise dispose of any shares of our common stock, or any options or warrants to purchase our common stock, for a period of 180 days from the effective time of the Merger (or for a period of 90 days from the effective time of the Merger, in respect of certain stockholders), subject to customary exceptions.

Also in connection with the Merger, on September 9, 2016, we entered into a registration rights agreement with DNI, which provides DNI with the right to demand that we register its shares of our common stock and also provides DNI with piggyback registration rights for its shares of our common stock. Pursuant to the registration rights agreement, upon DNI's request, we are required to prepare and file one or more registration statements with the SEC for the offer and sale from time to time on a continuous or delayed basis of the shares of our common stock issued to DNI in connection with the Merger. Such registrations are required to be accomplished pursuant to a shelf registration statement on Form S-3 (or, if we do not satisfy the requirements for such form, on such other form as may be appropriate). Additionally, DNI has the right to demand that we effect the registration of a specified number of shares for sale within a specified period, provided that such demand may only be made twice in any 12-month period. In addition, under the registration rights agreement, if we propose to file a registration statement with respect to an offering of equity securities for sale to the public (other than registrations on Form S-4 or S-8), we are

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required to provide notice to DNI of such anticipated filing and, subject to certain limitations and priorities, DNI may require us to include in such registration any of the shares of our common stock issued to it in connection with the Merger.

See Note 13 to the consolidated financial statements set forth in Part II, Item 8 of this report for information regarding other related party transactions involving DNI and its affiliates. In addition, Mr. Min Woo Nam, the Chairman of our Board of Directors, personally guarantees certain of our credit facilities. As of December 31, 2016, the aggregate principal amount of outstanding indebtedness guaranteed by Mr. Nam under such facilities was \$8.7 million.

### **Director Independence**

See “Item 10. Directors, Executive Officers and Corporate Governance” for information regarding our Board of Directors and independence requirements.

## **ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES**

### **Principal Accounting Fees and Services**

The following is a summary of the fees billed by PricewaterhouseCoopers LLP (PwC) and Samil PricewaterhouseCoopers (Samil PwC) for professional services rendered to DZS and DNS, respectively, for the year ended December 31, 2016, and billed by Samil PwC to DNS for the year ended December 31, 2015:

	2016	2015
Audit Fees	\$ 1,893,194 (1)	\$ 661,144
Audit-Related Fees	60,274 (2)	116,878
Tax Fees	77,043	—
All Other Fees	—	2,244
Total	<u>\$ 2,030,511</u>	<u>\$ 780,266</u>

(1) Audit Fees for the year ended December 31, 2016 comprise \$1,837,000 billed by PwC and \$56,194 billed by Samil PwC.

(2) All Audit-Related Fees for the year ended December 31, 2016 were billed by Samil PwC.

**Audit Fees.** This category includes the audit of our annual financial statements, review of financial statements, audit of our internal control over financial reporting (when applicable), review of our Form 10-Q quarterly reports, and services that are normally provided by the independent registered public accounting firm in connection with statutory and regulatory filings or engagements. With respect to pre-Merger periods, this category includes the audit of the annual financial statements and review of financial statements of DNS only, as DNS was a wholly owned subsidiary of DNI prior to the Merger.

**Audit-Related Fees.** This category consists of assurance and related services provided by PwC and Samil PwC that are reasonably related to the performance of the audit or review of our financial statements, and are not reported above as “Audit Fees.” These services include accounting consultations in connection with acquisitions, and consultations concerning financial accounting and reporting standards.

**Tax Fees.** This category consists of professional services rendered by PwC and Samil PwC primarily in connection with tax compliance, tax planning and tax advice activities. These services include assistance with the preparation of tax returns, claims for refunds, value added tax compliance, and consultations on state, local and international tax matters.

**All Other Fees.** This category consists of fees for products and services other than the services reported above.

### **Pre-Approval Policy of the Audit Committee**

The Audit Committee’s policy is to pre-approve all audit and permissible non-audit services provided by the independent registered public accounting firm. These services may include audit services, audit-related services, tax services and other services. Pre-approval is generally provided for up to one year, is detailed as to the particular service or category of services, and is generally subject to a specific budget. The independent registered public accounting firm and management are required to periodically report to the Audit Committee regarding the extent of services provided by the independent registered public accounting firm in accordance with this pre-approval, and the fees for the services performed to date. The Audit Committee

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may also pre-approve particular services on a case-by-case basis. All audit-related fees, tax fees and other fees billed to DZS or Legacy Zhone in each of the last two fiscal years were pre-approved by the Audit Committee.

**PART IV**

**ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES**

1. *Financial Statements*

The Index to Consolidated Financial Statements on page 42 is incorporated herein by reference as the list of financial statements required as part of this report.

2. *Exhibits*

The Exhibit Index on page 106 is incorporated herein by reference as the list of exhibits required as part of this report.

**ITEM 16. FORM 10-K SUMMARY**

None.



## EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference				Filed or Furnished Herewith
		Form	File Number	Exhibit	Filing Date	
3.1	<a href="#">Restated Certificate of Incorporation of DASAN Zhone Solutions, Inc., as amended through February 28, 2017</a>					X
3.2	<a href="#">Amended and Restated Bylaws</a>	8-K	000-32743	3.2	September 12, 2016	
10.1#	<a href="#">DASAN Zhone Solutions, Inc. 2017 Incentive Award Plan</a>	8-K	000-32743	10.1	January 10, 2017	
10.1.1#	<a href="#">Form of Stock Option Agreement for the DASAN Zhone Solutions, Inc. 2017 Incentive Award Plan</a>	8-K	000-32743	10.2	January 10, 2017	
10.1.2#	<a href="#">Form of Restricted Stock Unit Award Agreement for the DASAN Zhone Solutions, Inc. 2017 Incentive Award Plan</a>					X
10.2 #	<a href="#">DASAN Zhone Solutions, Inc. Amended and Restated 2001 Stock Incentive Plan, as amended</a>	8-K	000-32743	10.6	September 13, 2016	
10.2.1#	<a href="#">Form of Stock Option Agreement for the DASAN Zhone Solutions, Inc. Amended and Restated 2001 Stock Incentive Plan, as amended</a>	8-K	000-32743	10.7	September 13, 2016	
10.2.2#	<a href="#">Form of Restricted Stock Award Agreement for the DASAN Zhone Solutions, Inc. Amended and Restated 2001 Stock Incentive Plan, as amended</a>	8-K	000-32743	10.2	May 17, 2007	
10.2.3#	<a href="#">Form of Restricted Stock Unit Award Agreement for the DASAN Zhone Solutions, Inc. Amended and Restated 2001 Stock Incentive Plan, as amended</a>	10-Q	000-32743	10.3	November 14, 2016	
10.3#	<a href="#">DASAN Zhone Solutions, Inc. 2002 Employee Stock Purchase Plan</a>	8-K	000-32743	10.1	May 17, 2006	
10.5#	<a href="#">DASAN Zhone Solutions, Inc. Non-Employee Director Compensation Program</a>					X
10.5#	<a href="#">Form of Indemnity Agreement (directors and officers)</a>	10-Q	000-32743	10.20	May 14, 2004	
10.6#	<a href="#">Form of Change of Control Severance Agreement</a>	10-Q	000-32743	10.1	August 9, 2012	
10.7#	<a href="#">Zhone Technologies, Inc. Incentive Bonus Plan</a>	10-Q	000-32743	10.1	November 8, 2013	
10.8#	<a href="#">Employment Agreement dated as of September 9, 2016 by and between DASAN Zhone Solutions, Inc. and Il Yung Kim</a>	8-K	000-32743	10.1	September 13, 2016	
10.9#	<a href="#">Amended and Restated Employment Agreement dated as of September 9, 2016 by and between DASAN Zhone Solutions, Inc. and James Norrod</a>	8-K	000-32743	10.2	September 13, 2016	

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Exhibit Number	Exhibit Description	Incorporated by Reference				Filed or Furnished Herewith
		Form	File Number	Exhibit	Filing Date	
10.10#	<a href="#">Employment Agreement dated as of September 9, 2016 by and between DASAN Zhone Solutions, Inc. and Kirk Misaka</a>	8-K	000-32743	10.3	September 13, 2016	
10.11#	<a href="#">Transaction Bonus Agreement, dated as of September 9, 2016, by and between DASAN Zhone Solutions, Inc. and James Norrod</a>	8-K	000-32743	10.4	September 13, 2016	
10.12#	<a href="#">Transaction Bonus Agreement, dated as of September 9, 2016, by and between DASAN Zhone Solutions, Inc. and Kirk Misaka</a>	8-K	000-32743	10.5	September 13, 2016	
10.13#	<a href="#">Letter Agreement, dated November 10, 2016, between DASAN Zhone Solutions, Inc. and Eric Presworsky</a>	8-K	000-32743	10.1	November 14, 2016	
10.14#	<a href="#">Stock Option Cancellation Agreement dated March 31, 2016, between Zhone Technologies, Inc. and James Norrod</a>	8-K	000-32743	10.1	April 5, 2016	
10.15#	<a href="#">Transition Support Service Agreement dated as of January 31, 2016 between Zhone Technologies, Inc. and Morteza Ejabat</a>	10-K	000-32743	10.17	March 23, 2016	
10.16	<a href="#">Stockholder Agreement, dated as of September 9, 2016, by and among DASAN Zhone Solutions, Inc. and DASAN Networks, Inc. and the other parties thereto</a>	8-K	000-32743	10.1	September 12, 2016	
10.17	<a href="#">Lock-Up Agreement, dated as of September 9, 2016, by and among DASAN Zhone Solutions, Inc., DASAN Networks, Inc. and the other parties thereto</a>	8-K	000-32743	10.2	September 12, 2016	
10.18	<a href="#">Registration Rights Agreement, dated as of September 9, 2016, by and among DASAN Zhone Solutions, Inc., DASAN Networks, Inc. and the other parties thereto</a>	8-K	000-32743	10.3	September 12, 2016	
10.19	<a href="#">Loan Agreement, dated as of September 9, 2016, by and among DASAN Zhone Solutions, Inc., DASAN Networks, Inc. and the other parties thereto</a>	8-K	000-32743	10.4	September 12, 2016	
10.20	<a href="#">Credit and Security Agreement, dated as of March 13, 2012, by and among Zhone Technologies, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation and Wells Fargo Bank, National Association</a>	10-K	000-32743	10.16	March 15, 2012	

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Exhibit Number	Exhibit Description	Incorporated by Reference				Filed or Furnished Herewith
		Form	File Number	Exhibit	Filing Date	
10.21.1	<a href="#">First Amendment to Credit and Security Agreements, dated as of March 12, 2013, by and among Zhone Technologies, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation and Wells Fargo Bank, National Association</a>	10-K	000-32743	10.12.1	March 15, 2013	
10.21.2	<a href="#">Second Amendment to Credit and Security Agreements, dated as of September 30, 2013, by and among Zhone Technologies, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation and Wells Fargo Bank, National Association</a>	8-K	000-32743	10.1	October 1, 2013	
10.21.3	<a href="#">Third Amendment to Credit and Security Agreements, dated as of March 5, 2014, by and among Zhone Technologies, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation and Wells Fargo Bank, National Association</a>	10-K	000-32743	10.13.3	March 5, 2014	
10.21.4	<a href="#">Fourth Amendment to Credit and Security Agreements, dated as of March 6, 2015, by and among Zhone Technologies, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation and Wells Fargo Bank, National Association</a>	10-K	000-32743	10.14.4	March 6, 2015	
10.21.5	<a href="#">Fifth Amendment to Credit and Security Agreements, dated as of March 23, 2016, by and among Zhone Technologies, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation and Wells Fargo Bank, National Association</a>	10-K	000-32743	10.14.5	March 23, 2016	
10.2.6	<a href="#">Sixth Amendment to Credit and Security Agreements and Consent, dated as of September 9, 2016, by and among Zhone Technologies, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation and Wells Fargo Bank, National Association</a>	8-K	000-32743	10.5	September 12, 2016	

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Exhibit Number	Exhibit Description	Incorporated by Reference				Filed or Furnished Herewith
		Form	File Number	Exhibit	Filing Date	
10.21.7	<a href="#">Joinder and Seventh Amendment to Credit and Security Agreements, dated as of October 7, 2016, by and among DASAN Zhone Solutions, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation, Dasan Network Solutions, Inc. and Wells Fargo Bank, National Association</a>	10-Q	000-32743	10.15	November 14, 2016	
10.21.8	<a href="#">Consent Memorandum, dated May 5, 2017, by and among DASAN Zhone Solutions, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation, Dasan Network Solutions, Inc. and Wells Fargo</a>	8-K	000-32743	10.1	May 9, 2017	
10.21.9	<a href="#">Letter Agreement, dated July 3, 2017, by and among DASAN Zhone Solutions, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation, Dasan Network Solutions, Inc. and Wells Fargo</a>	8-K	000-32743	10.1	July 6, 2017	
10.22	<a href="#">Credit and Security Agreement (Ex-Im Subfacility), dated as of March 13, 2012, by and among Zhone Technologies, Inc., ZTI Merger Subsidiary III, Inc., Premisys Communications, Inc., Zhone Technologies International, Inc., Paradyne Networks, Inc., Paradyne Corporation and Wells Fargo Bank, National Association</a>	10-K	000-32743	10.17	March 15, 2012	
10.23	<a href="#">Office Lease Agreement, dated February 18, 2016, between Zhone Technologies, Inc. and BACM 2005-3 Bryan Dairy Industrial, LLC</a>	8-K	000-32743	10.1	February 23, 2016	
10.23.1	<a href="#">First Amendment to Office Lease Agreement, dated June 7, 2016, between Zhone Technologies, Inc. and BACM 2005-3 Bryan Dairy Industrial, LLC</a>	10-Q	000-32743	10.1	August 9, 2016	
21.2	<a href="#">List of Subsidiaries</a>					X
23.1	<a href="#">Consent of Independent Registered Public Accounting Firm</a>					X
23.2	<a href="#">Consent of Independent Registered Public Accounting Firm</a>					X
31.1	<a href="#">Certification of Chief Executive Officer and Acting Chief Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a)</a>					X

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Exhibit Number	Exhibit Description	Incorporated by Reference			Filed or Furnished Herewith
		Form	File Number	Exhibit	
32.1	<a href="#">Section 1350 Certification of Chief Executive Officers and Acting Chief Financial Officer</a>				X
101.INS	XBRL Instance Document				X
101.SCH	XBRL Taxonomy Extension Schema				X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase				X
101.DEF	XBRL Taxonomy Extension Definition Linkbase				X
101.LAB	XBRL Taxonomy Extension Labels Linkbase				X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase				X

# Management contract or compensatory plan or arrangement in which one or more executive officers or directors participates.

**RESTATED CERTIFICATE OF INCORPORATION  
OF  
DASAN ZHONE SOLUTIONS, INC.  
(as amended through February 28, 2017)**

**ARTICLE I  
NAME**

The name of the corporation is DASAN Zhone Solutions, Inc. (the "Corporation").

**ARTICLE II  
REGISTERED OFFICE AND AGENT**

The address of the Corporation's registered office in the State of Delaware is 1209 Orange Street, City of Wilmington, New Castle County, Delaware. The name of its registered agent at such address is The Corporation Trust Company.

**ARTICLE III  
PURPOSE**

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  
CAPITAL STOCK**

The total number of shares of all classes of capital stock which the Corporation shall have authority to issue is Sixty-One Million (61,000,000) shares, of which:

Thirty-Six Million (36,000,000) shares, par value \$.001 per share, shall be shares of common stock (the "Common Stock"); and

Twenty-Five Million (25,000,000) shares, par value \$.001 per share, shall be shares of preferred stock (the "Preferred Stock").

(A) Common Stock. Except as (1) otherwise required by law or (2) expressly provided in this Restated Certificate of Incorporation (as amended from time to time), each share of Common Stock shall have the same powers, rights and privileges and shall rank equally, share ratably and be identical in all respects as to all matters. Upon the filing and effectiveness of this amendment to the Corporation's Restated Certificate of Incorporation (the "Effective Time"), each share of Common Stock of the Corporation issued and outstanding or held as treasury shares immediately prior to the Effective Time (the "Old Shares") shall automatically be reclassified and continued, without any action on the part of the holder thereof, as one-fifth (1/5th) of one share of Common Stock (the "Reverse Stock Split"). The Corporation shall not issue fractional shares in connection with the Reverse Stock Split. Holders of Old Shares who would otherwise be entitled to receive a fraction of a share on account of the Reverse Stock Split shall receive, upon surrender of any stock certificates formerly representing the Old Shares, in lieu of such fractional share, an amount in cash equal to the product of (i) the average closing price per share of the Common Stock as reported by the Nasdaq Capital Market for the five (5) trading days immediately preceding the Effective Time, by (ii) the number of Old Shares held by such holder that would otherwise have been exchanged for such fractional share interests.

(1) Dividends. Subject to the rights of the holders of Preferred Stock, and to the other provisions of this Restated Certificate of Incorporation (as amended from time to time), holders of Common Stock shall be entitled to receive equally, on a per share basis, such dividends and other distributions in cash, securities or other property of the Corporation as may be declared thereon by the Board of Directors from time to time out of assets or funds of the Corporation legally available therefore.

(2) Voting Rights. At every annual or special meeting of stockholders of the Corporation, each holder of Common Stock shall be entitled to cast one (1) vote for each share of Common Stock standing in such holder's name on the stock transfer records of the Corporation.

(3) Liquidation Rights. In the event of any liquidation, dissolution or winding up of the affairs of the Corporation, whether voluntary or involuntary, after payment or provision for payment of the Corporation's debts and amounts payable upon shares of Preferred Stock entitled to a preference, if any, over holders of Common Stock upon such dissolution, liquidation or winding up, the remaining net assets of the Corporation shall be distributed among holders of shares of Common Stock equally on a per share basis. A merger or consolidation of the Corporation with or into any other corporation or other entity, or a sale or conveyance of all or any part of the assets of the Corporation (which shall not in fact result in the liquidation of the Corporation and the distribution of assets to its stockholders) shall not be deemed to be a voluntary or involuntary liquidation or dissolution or winding up of the Corporation within the meaning of this Paragraph (A)(3).

(B) Preferred Stock. The Board of Directors is authorized, subject to limitations prescribed by law, to provide by resolution or resolutions for the issuance of shares of Preferred Stock in one or more series, to establish the number of shares to be included in each such series, and to fix the voting powers (if any), designations, powers, preferences, and relative, participating, optional or other rights, if any, of the shares of each such series, and any qualifications, limitations or restrictions thereof. Irrespective of the provisions of Section 242(b)(2) of the DGCL, 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 in voting power of the stock of the Corporation entitled to vote, without the separate vote of the holders of the Preferred Stock as a class.

**ARTICLE V  
BOARD OF DIRECTORS**

(A) Management. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. The Board of Directors may exercise all such authority and powers of the Corporation and do all such lawful acts and things as are not by statute or this Restated Certificate of Incorporation directed or required to be exercised or done by the stockholders.

(B) Number of Directors. The number of directors of the Corporation shall be fixed from time to time by, or in the manner provided in, the Bylaws; provided, however, that the number of directors shall not be less than three (3) nor more than eleven (11).

(C) Classes and Terms of Directors. The directors shall be divided into three classes, as nearly equal in number as possible, and no class shall include less than one director. The initial term of office for members of the first class shall expire at the annual meeting of stockholders in 2002; the initial term of office for members of the second class shall expire at the annual meeting of stockholders in 2003; and the initial term of office for members of the third class shall expire at the annual meeting of stockholders in 2004. At each annual meeting of stockholders following such initial classification and election, directors elected to succeed those directors whose terms expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election, and shall continue to hold office until their respective successors are elected and qualified. In the event of any increase in the number of directors fixed by the Board of Directors, the additional directors shall be classified so that all classes of directors have as nearly equal numbers of directors as may be possible. In the event of any decrease in the number of directors, all classes of directors shall be decreased equally as nearly as may be possible.

(D) Newly-Created Directorships and Vacancies. Subject to the rights of the holders of any class of Common Stock or series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the number of directors or any vacancies in the Board of Directors resulting from death, resignation, retirement, disqualification, removal from office or any other cause may be filled by the Board of Directors, provided that a quorum is then in office and present, or by a majority of the directors then in office, if less than a quorum is then in office, or by the sole remaining director. Directors elected to fill a newly created directorship or other vacancies shall hold office for the remainder of the full term of the class of directors in which the new directorship was created or the vacancy occurred and until such director's successor has been elected and has qualified.

(E) Removal of Directors. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any director may be removed from office at any time, but only for cause, at a meeting called for that purpose, and only by the affirmative vote of the holders of at least  $66 \frac{2}{3} \%$  of the voting power of all shares of Common Stock entitled to vote generally in the election of directors, voting together as a single class.

(F) Rights of Holders of Preferred Stock. Notwithstanding the foregoing provisions of this Article V, whenever the holders of one or more series of Preferred Stock issued by the Corporation shall have the right, voting separately or together by series, to elect directors at an annual or special meeting of stockholders, the election, term of office, filling of vacancies and other features of such directorship shall be governed by the rights of such Preferred Stock as set forth in the certificate of designations governing such series.

(G) Written Ballot Not Required. Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall otherwise provide.

(H) Bylaws. The Board of Directors is expressly authorized to adopt, amend or repeal the bylaws of the Corporation. Any bylaws made by the directors under the powers conferred hereby may be amended or repealed by the directors or by the stockholders. Notwithstanding the foregoing and anything contained in this Restated Certificate of Incorporation to the contrary, the bylaws of the Corporation shall not be amended or repealed by the stockholders, and no provision inconsistent therewith shall be adopted by the stockholders, without the affirmative vote of the holders of  $66 \frac{2}{3} \%$  of the voting power of all shares of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

**ARTICLE VI  
LIMITATION OF LIABILITY**

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; provided, however, that the foregoing shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit. If the DGCL is hereafter amended to permit further elimination or limitation of 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. Any repeal or modification of this Article VI by the stockholders of the Corporation or otherwise shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification.

**ARTICLE VII  
INDEMNIFICATION**

Each person who was or is made a party or is threatened to be made a party to or is involved (including, without limitation, as a witness) in any actual or threatened action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director or officer of another corporation or of a partnership, limited liability company, joint venture, trust or other enterprise, including service with respect to an employee benefit plan (hereinafter an "Indemnitee"), whether the basis of such proceeding is alleged action in an official capacity as a director or officer or in any other capacity while so serving, shall be indemnified and held harmless by the Corporation to the full extent authorized by the DGCL, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such

amendment), or by other applicable law as then in effect, against all expense, liability and loss (including attorneys' fees and related disbursements, judgments, fines, excise taxes or penalties under the Employee Retirement Income Security Act of 1974, as amended from time to time ("ERISA"), penalties and amounts paid or to be paid in settlement) actually and reasonably incurred or suffered by such Indemnitee in connection therewith, and such indemnification shall continue as to a person who has ceased to be a director, officer, partner, member or trustee and shall inure to the benefit of his or her heirs, executors and administrators. Each person who is or was serving as a director or officer of a subsidiary of the Corporation shall be deemed to be serving, or have served, at the request of the Corporation.

(A) Procedure. Any indemnification (but not advancement of expenses) under this Article VII (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the director or officer is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL, as the same exists or hereafter may be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment). Such determination shall be made with respect to a person who is a director or officer at the time of such determination (a) by a majority vote of the directors who were not parties to such proceeding (the "Disinterested Directors"), even though less than a quorum, (b) by a committee of Disinterested Directors designated by a majority vote of Disinterested Directors, even though less than a quorum, (c) if there are no such Disinterested Directors, or if such Disinterested Directors so direct, by independent legal counsel in a written opinion, or (d) by the stockholders.

(B) Advances for Expenses. Expenses (including attorneys' fees, costs and charges) incurred by a director or officer of the Corporation in defending a proceeding shall be paid by the Corporation in advance of the final disposition of such proceeding upon receipt of an undertaking by or on behalf of the director or officer to repay all amounts so advanced in the event that it shall ultimately be determined that such director or officer is not entitled to be indemnified by the Corporation as authorized in this Article VII. The majority of the Disinterested Directors may, in the manner set forth above, and upon approval of such director or officer of the Corporation, authorize the Corporation's counsel to represent such person, in any proceeding, whether or not the Corporation is a party to such proceeding.

(C) Procedure for Indemnification. Any indemnification or advance of expenses (including attorney's fees, costs and charges) under this Article VII shall be made promptly, and in any event within 60 days upon the written request of the director or officer (and, in the case of advance of expenses, receipt of a written undertaking by or on behalf of Indemnitee to repay such amount if it shall ultimately be determined that Indemnitee is not entitled to be indemnified therefor pursuant to the terms of this Article VII). The right to indemnification or advances as granted by this Article VII shall be enforceable by the director or officer in any court of competent jurisdiction, if the Corporation denies such request, in whole or in part, or if no disposition thereof is made within 60 days. Such person's costs and expenses incurred in connection with successfully establishing his/her right to indemnification, in whole or in part, in any such action shall also be indemnified by the Corporation. It shall be a defense to any such action (other than an action brought to enforce a claim for the advance of expenses (including attorney's fees, costs and charges) under this Article VII where the required undertaking, if any, has been received by the Corporation) that the claimant has not met the standard of conduct set forth in the DGCL, as the same exists or hereafter may be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment), but the burden of proving such defense shall be on the Corporation. Neither the failure of the Corporation (including its Board of Directors, its independent legal counsel and its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he/she has met the applicable standard of conduct set forth in the DGCL, as the same exists or hereafter may be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment), nor the fact that there has been an actual determination by the Corporation (including its Board of Directors, its independent legal counsel and its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that the claimant has not met the applicable standard of conduct.

(D) Other Rights: Continuation of Right to Indemnification. The indemnification and advancement of expenses provided by this Article VII shall not be deemed exclusive of any other rights to which a person seeking indemnification or advancement of expenses may be entitled under any law (common or statutory), bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his/her official capacity and as to action in another capacity while holding office or while employed by or acting as agent for the Corporation, and shall continue as to a person who has ceased to be a director or officer, and shall inure to the benefit of the estate, heirs, executors and administrators of such person. All rights to indemnification under this Article VII shall be deemed to be a contract between the Corporation and each director or officer of the Corporation who serves or served in such capacity at any time while this Article VII is in effect. Any repeal or modification of this Article VII or any repeal or modification of relevant provisions of the DGCL or any other applicable laws shall not in any way diminish any rights to indemnification of such director or officer or the obligations of the Corporation arising hereunder with respect to any proceeding arising out of, or relating to, any actions, transactions or facts occurring prior to the final adoption of such modification or repeal. For the purposes of this Article VII, references to "the Corporation" include all constituent corporations absorbed in a consolidation or merger as well as the resulting or surviving corporation, so that any person who is or was a director or officer of such a constituent corporation or is or was serving at the request of such constituent corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise shall stand in the same position under the provisions of this Article VII, with respect to the resulting or surviving corporation, as he would if he/she had served the resulting or surviving corporation in the same capacity.

(E) Insurance. The Corporation shall have power to purchase and maintain insurance on behalf of any person who is or was or has agreed to become a director or officer of the Corporation, or is or was serving at the request of the Corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, against any liability asserted against him and incurred by him or on his behalf in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify him against such liability under the provisions of this Article VII; provided, however, that such insurance is available on acceptable terms, which determination shall be made by a vote of a majority of the Board of Directors.

(F) Savings Clause. If this Article VII or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each person entitled to indemnification under the first paragraph of this Article VII as to all expense, liability and loss (including attorneys' fees and related disbursements, judgments, fines, ERISA excise taxes and penalties, penalties and amounts paid or to be paid in settlement) actually and reasonably

incurred or suffered by such person and for which indemnification is available to such person pursuant to this Article VII to the full extent permitted by any applicable portion of this Article VII that shall not have been invalidated and to the full extent permitted by applicable law.

**ARTICLE VIII  
STOCKHOLDER ACTION**

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 such holders and may not be effected by any consent in writing by such holders.

**ARTICLE IX  
AMENDMENT**

The Corporation reserves the right to amend, alter, change or repeal any provision contained in this 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. Notwithstanding any other provision of this Certificate of Incorporation or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage or separate class vote may be specified by law, this Certificate of Incorporation, the Bylaws of the Corporation or otherwise, but in addition to any affirmative vote of the holders of any particular class or series of the capital stock required by law, this Certificate of Incorporation, the Bylaws of the Corporation or otherwise, the affirmative vote of the holders of at least 66-2/3% of the voting power of all shares of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to adopt any provision inconsistent with, to amend or repeal any provision of, or to adopt a bylaw inconsistent with, Articles V, VI, VII, VIII or IX of this Certificate of Incorporation.

**DASAN ZHONE SOLUTIONS, INC.  
2017 INCENTIVE AWARD PLAN**

**RESTRICTED STOCK UNIT GRANT NOTICE AND  
RESTRICTED STOCK UNIT AGREEMENT**

DASAN Zhone Solutions, Inc., a Delaware corporation (the “*Company*”), pursuant to its 2017 Incentive Award Plan (as amended from time to time, the “*Plan*”), hereby grants to the individual listed below (“*Participant*”), the number of restricted stock units (“*Restricted Stock Units*” or “*RSUs*”) with respect to the number of shares of the Company’s common stock (the “*Shares*”) set forth below. This award (the “*Award*”) is subject to all of the terms and conditions set forth in this Restricted Stock Unit Grant Notice (the “*Grant Notice*”) and in the Restricted Stock Unit Agreement attached hereto as Exhibit A (the “*Agreement*”) and the Plan, each of which are incorporated herein by reference. Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Grant Notice and the Agreement.

**Participant:** \_\_\_\_\_

**Grant Date:** \_\_\_\_\_

**Vesting Commencement Date:** \_\_\_\_\_

**Total Number of RSUs:** \_\_\_\_\_

**Distribution Schedule:** Subject to the terms of the Agreement, the RSUs shall be distributable as they vest pursuant to the Vesting Schedule in accordance with Section 1.1(c) of the Agreement.

**Vesting Schedule:** Subject to the terms of the Agreement, the RSUs shall vest [Note: Vesting to be approved by the Administrator and will be specified in individual agreements].

By his or her signature below, Participant agrees to be bound by the terms and conditions of the Plan, the Agreement and this Grant Notice. Participant has reviewed the Agreement, the Plan and this Grant Notice 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 this Grant Notice, the Agreement and the Plan. 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.

**DASAN ZHONE SOLUTIONS, INC.**

**PARTICIPANT**

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

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**EXHIBIT A  
TO RESTRICTED STOCK UNIT GRANT NOTICE**

**RESTRICTED STOCK UNIT AGREEMENT**

Pursuant to the Grant Notice to which this Agreement is attached, the Company has granted to Participant RSUs under the Plan with respect to the number of Shares indicated in the Grant Notice. The RSUs are subject to the terms and conditions set forth in this Agreement and the Plan, which are incorporated herein by reference. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control.

**ARTICLE I  
GRANT OF RSUS**

1.1 Award of Restricted Stock Units.

(a) Grant of RSUs. In consideration of Participant's past and/or continued employment with or service to the Company or an Affiliate and for other good and valuable consideration, effective as of the Grant Date set forth in the Grant Notice (the "**Grant Date**"), the Company hereby grants to Participant the number of RSUs set forth in the Grant Notice, upon the terms and conditions set forth in the Plan, the Grant Notice and this Agreement. Prior to actual issuance of any Shares, the RSUs and the Award represent an unsecured obligation of the Company, payable only from the general assets of the Company.

(b) Vesting. The RSUs subject to the Award shall vest in accordance with the Vesting Schedule set forth in the Grant Notice. Unless and until the RSUs have vested in accordance with the Vesting Schedule set forth in the Grant Notice, Participant will have no right to any distribution with respect to such RSUs. Unless otherwise provided the Grant Notice, in the event of Participant's Termination of Service prior to the vesting of all of the RSUs, any unvested RSUs will terminate automatically without any further action by the Company and be forfeited without further notice and at no cost to the Company.

(c) Distribution of RSUs.

(i) Shares shall be distributed to Participant (or in the event of Participant's death, to his or her estate) with respect to Participant's vested RSUs within ten (10) days following the date on which such RSUs vest as specified in the Vesting Schedule set forth in the Grant Notice (or, in the event the vesting date is the date of a Change in Control, the RSUs shall be settled immediately prior to such Change in Control), subject to the terms and provisions of the Plan and this Agreement.

(ii) All distributions of the RSUs shall be made by the Company in the form of whole Shares. In lieu of any fractional Share, the Company shall make a cash payment to Participant equal to the Fair Market Value of such fractional share on the date the RSUs are settled pursuant to this Section 1.1.

(iii) Neither the time nor form of distribution of Shares with respect to the RSUs may be changed, except as may be permitted by the Administrator in accordance with the Plan and Section 409A of the Code and the Treasury Regulations thereunder.

(d) Generally. Shares issued under the Award shall be issued to Participant or Participant's beneficiaries, as the case may be, at the sole discretion of the Administrator, in either (i) uncertificated form, with the Shares recorded in the name of Participant in the books and records of the Company's transfer agent with appropriate notations regarding the restrictions on transfer imposed pursuant to this Agreement; or (ii) certificate form.

1.2 Tax Withholding. Notwithstanding any other provision of this Agreement:

(a) The Company and its Affiliates have the authority to deduct or withhold, or require Participant to remit to the Company or the applicable Affiliate, an amount sufficient to satisfy applicable federal, state, local and foreign taxes (including the Participant's social security, Medicare and any other employment tax obligation) required by Applicable Law to be withheld with respect to any taxable event arising pursuant to this Agreement. Further, if Participant is subject to tax in more than one jurisdiction, Participant acknowledges that the Company and/or the Affiliate employing Participant (or former employer, as applicable) may be required to withhold or account for taxes in more than one jurisdiction. Participant may satisfy the tax withholding obligation in one or more of the forms specified below, subject to Section 10.2 of the Plan:

(i) By cash or check made payable to the Company or the Affiliate with respect to which the tax withholding obligation arises;

(ii) By the deduction of such amount from other compensation payable to Participant;

(iii) With the consent of the Administrator, by requesting that the Company withhold a net number of Shares otherwise issuable pursuant to the RSUs having a then current Fair Market Value not exceeding the amount necessary to satisfy the withholding obligation of the Company and its Affiliates;

(iv) With the consent of the Administrator, by tendering vested Shares having a then current Fair Market Value not exceeding the amount necessary to satisfy the withholding obligation of the Company and its Affiliates;

(v) Through the delivery of a notice that Participant has placed a market sell order with a broker acceptable to the Company with respect to the Shares issuable pursuant to the RSUs then vesting, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company or the Affiliate with respect to which the withholding obligation arises in satisfaction of such withholding taxes; provided that payment of such proceeds is then made to the Company or the applicable Affiliate at such time as may be required by the Administrator, but in any event not later than the settlement of such sale; or

(vi) In any combination of the foregoing.

(b) In the event Participant fails to provide timely payment of all sums required pursuant to Section 1.2(a), the Company and its Affiliates shall have the right and option, but not the obligation, to treat such failure as an election by Participant to satisfy all or any portion of Participant's required payment obligation pursuant to Section 1.2(a)(ii) or Section 1.2(a)(iii) above, or any combination of the foregoing as the Company or its Affiliates may determine to be appropriate. If Participant is subject to Section 16 of the Exchange Act at the time the tax withholding obligation arises, the prior approval of the Committee shall be required for any election by the Company to satisfy all or any portion of Participant's required payment obligation pursuant to Section 1.2(a)(iii) above pursuant to this Section 2.4(b).

(c) In the event any tax withholding obligation will be satisfied under Section 1.2(a)(iii) above, then the Company may elect to instruct any brokerage firm determined acceptable to the Company for such purpose to sell on Participant's behalf a whole number of Shares from those Shares that are issuable upon settlement of the RSUs as the Company determines to be appropriate to generate cash proceeds sufficient to satisfy the tax withholding obligation and to remit the proceeds of such sale to the Company or the Affiliate with respect to which the withholding obligation arises. Participant's acceptance of this Award constitutes Participant's instruction and authorization to the Company and such brokerage firm to complete the transactions described in this Section 1.2(c), including the transactions described in the previous sentence, as applicable. If Participant is subject to Section 16 of the Exchange Act at the time the tax withholding obligation arises, the prior approval of the Committee shall be required for any election by the Company pursuant to this Section 1.2(c).

(d) The Company and/or its Affiliate's withholding obligation shall be determined based on the minimum applicable statutory withholding rates for federal, state, local and foreign income tax and payroll tax purposes (or such higher withholding rates as may be determined by the Administrator, which rates shall in no event exceed the maximum individual statutory tax rate in the applicable jurisdiction at the time of such withholding (or such other rate as may be required to avoid adverse accounting consequences)).

(e) Participant is ultimately liable and responsible for all taxes owed in connection with the RSUs, regardless of any action the Company or any Affiliate takes with respect to any tax withholding obligations that arise in connection with the RSUs. Neither the Company nor any Affiliate makes any representation or undertaking regarding the treatment of any tax withholding in connection with the awarding, vesting or settlement of the RSUs or the subsequent sale of Shares. The Company and its Affiliates do not commit and are under no obligation to structure the RSUs to reduce or eliminate Participant's tax liability. The Company shall not be obligated to deliver any Shares issuable under the RSUs to Participant or his or her legal representative unless and until Participant or his or her legal representative shall have paid or otherwise satisfied in full the amount of all federal, state, local and foreign taxes applicable with respect to the taxable income of Participant resulting from the settlement of the RSUs or any other taxable event related to the RSUs.

1.3 Conditions to Issuance of Shares. The Company shall not be required to issue or deliver any Shares issuable upon the vesting of the RSUs or portion thereof prior to fulfillment of all of the following conditions:

(a) The admission of such Shares to listing on all stock exchanges on which such Shares are then listed;

(b) The completion of any registration or other qualification of such Shares under any state or federal law or under rulings or regulations of the Securities and Exchange Commission or other governmental regulatory body, which the Administrator, in its sole discretion, shall deem necessary or advisable;

(c) The obtaining of any approval or other clearance from any state or federal governmental agency that the Administrator, in its sole discretion, shall determine to be necessary or advisable;

(d) The lapse of such reasonable period of time following the date the RSUs vest as the Administrator may from time to time establish for reasons of administrative convenience; and

(e) The receipt of full payment of any applicable withholding tax in accordance with Section 1.3 by the Company or its Affiliate with respect to which the applicable withholding obligation arises.

1.4 Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares issuable upon vesting of the RSUs unless and until certificates representing such Shares (which may be in book-entry form) shall have been issued and recorded on the records of the Company or its transfer agents or registrars and delivered to Participant (including through electronic delivery to a brokerage account). No adjustment will be made for a dividend or other right for which the record date is prior to the date of such issuance, recordation and delivery, except as provided in Article 12 of the Plan. Except as otherwise provided herein, after such issuance, recordation and delivery, Participant will have all the rights of a stockholder of the Company with respect to such Shares, including, without limitation, the right to receipt of dividends and distributions on such shares.

1.5 Forfeiture and Claw-Back Provisions. Participant hereby acknowledges and agrees that the Award is subject to the provisions of Section 10.5 of the Plan.

## ARTICLE II

### OTHER PROVISIONS

2.1 Award Not Transferable. Participant hereby acknowledges and agrees that the Award is subject to the restrictions on transfer set forth in Section 10.3 of the Plan.

2.2 Adjustments. Participant acknowledges that the RSUs, including the vesting of the RSUs, and the number of RSUs, is subject to adjustment in the discretion of the Administrator upon the occurrence of certain events as provided in this Agreement and Article 12 of the Plan.

2.3 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, including, without limitation, the provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated thereunder by the Securities and Exchange Commission, and state securities laws and regulations. Notwithstanding anything herein to the contrary, the Plan shall be administered, and the RSUs are granted and may be settled, only in such a manner as to conform to Applicable Law. To the extent permitted by Applicable Law, the Plan, the Grant Notice and this Agreement shall be deemed amended to the extent necessary to conform to Applicable Law.

2.4 Amendment, Suspension and Termination. To the extent permitted by the Plan, this Agreement may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Administrator; provided, that, except as may otherwise be provided by the Plan, no amendment, modification, suspension or termination of this Agreement shall impair any rights or obligations under this Agreement in any material way without the prior written consent of Participant.

2.5 Notices. Any notice to be given under the terms of this Agreement to the Company shall be addressed to the Company in care of the Secretary of the Company at the Company's principal office, and any notice to be given to Participant shall be addressed to Participant at Participant's last address reflected on the Company's records. By a notice given pursuant to this Section 2.5, either party may hereafter designate a different address for notices to be given to that party. Any notice shall be deemed duly given when sent via email (if to Participant) or 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.

2.6 Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth herein and the Plan, this Agreement shall be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

2.7 Section 409A. This Award is not intended to constitute "nonqualified deferred compensation" within the meaning of Section 409A of the Code (together with any Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the date hereof, "**Section 409A**"). However, notwithstanding any other provision of the Plan, the Grant Notice or this Agreement, if at any time the Administrator determines that this Award (or any portion thereof) may be subject to Section 409A, the Administrator shall have the right in its sole discretion (without any obligation to do so or to indemnify Participant or any other person for failure to do so) to adopt such amendments to the Plan, the Grant Notice or this Agreement, or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, as the Administrator determines are necessary or appropriate for this Award either to be exempt from the application of Section 409A or to comply with the requirements of Section 409A. For purposes of Section 409A of the Code (including, without limitation, for purposes of Treasury Regulation Section 1.409A-2(b)(2)(iii)), each payment that Participant may be eligible to receive under this Agreement shall be treated as a separate and distinct payment.

2.8 Tax Representations. Participant has reviewed with Participant's own tax advisors the federal, state, local and foreign tax consequences of this investment 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. Participant understands that Participant (and not the Company) shall be responsible for Participant's own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

2.9 Titles. Titles are provided herein for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

2.10 Governing Law; Severability. The laws of the State of Delaware shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws. Should any provision of this Agreement be determined by a court of law to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable.

2.11 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 RSUs, the Grant Notice and this Agreement shall 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 of the Exchange Act) that are requirements for the application of such exemptive rule. To the extent permitted by Applicable Law, this Agreement shall be deemed amended to the extent necessary to conform to such applicable exemptive rule.

2.12 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.

2.13 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 shall not be construed as creating a trust. Neither the Plan nor any underlying program, in and of itself, has any assets. Participant shall 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 rights no greater than the right to receive the Shares as a general unsecured creditor, as and when the Shares are issued pursuant to the terms hereof.

2.14 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 shall be deemed an original and all of which together shall constitute one instrument.

2.15 Paperless Administration. By accepting this Award, Participant hereby agrees to receive documentation related to the Award by electronic delivery, such as a system using an internet website or interactive voice response, maintained by the Company or a third party designated by the Company.

2.16 Broker-Assisted Sales. In the event of any broker-assisted sale of Shares in connection with the payment of withholding taxes as provided in Section 1.2(a)(v) or Section 1.2(c): (a) any Shares to be sold through a broker-assisted sale will be sold on the day the tax withholding obligation arises, 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) Participant will be responsible for all broker's fees and other costs of sale, and 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 proceeds of such sale exceed the applicable tax withholding obligation, the Company agrees to pay such excess in cash to Participant as soon as reasonably practicable; (e) Participant acknowledges that the Company or its designee is under no obligation to arrange for such sale at any particular price, and that the proceeds of any such sale may not be sufficient to satisfy the applicable tax withholding obligation; and (f) in the event the proceeds of such sale are insufficient to satisfy the applicable tax withholding obligation, Participant agrees to pay immediately upon demand to the Company or its Affiliate with respect to which the withholding obligation arises, an amount sufficient to satisfy any remaining portion of the Company's or the applicable Affiliate's withholding obligation.

2.17 Nature of Grant. In accepting the RSUs, Participant understands, acknowledges, and agrees that:

(a) the Plan is established voluntarily by the Company, it is discretionary in nature and it may be modified, amended, suspended or terminated by the Company at any time in accordance with its terms;

(b) the grant of the RSUs is exceptional, voluntary and occasional and does not create any contractual or other right to receive future grants of equity awards, or benefits in lieu of equity awards, even if equity awards have been granted in the past;

(c) all decisions with respect to future option or other equity grants, if any, will be at the sole discretion of the Administrator;

(d) the RSU grant and participation in the Plan shall not create a right to employment or be interpreted as forming or amending an employment or service contract with the Company or any Affiliate and shall not interfere with the ability of the Company or any Affiliate, as applicable, to terminate Participant's employment or service relationship (if any) at any time with or without cause;

(e) Participant is voluntarily participating in the Plan;

(f) the RSUs and any Shares acquired under the Plan, and the income and value of same, are not intended to replace any pension rights or compensation;

(g) the RSUs and any Shares acquired under the Plan, and the income and value of same, are not part of normal or expected compensation for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end of service payments, bonuses, long-service awards, pension or retirement benefits, welfare benefits or other similar payments;

(h) the future value of the shares underlying the RSUs is unknown, indeterminable and cannot be predicted with certainty;

(i) if Participant vests in the RSUs and acquires shares, the value of such shares may increase or decrease in value;

(j) no claim or entitlement to compensation or damages shall arise from forfeiture of the RSUs resulting from termination of Participant's employment or other service relationship (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where Participant is employed or the terms of Participant's employment agreement, if any);

(k) for purposes of this RSUs, Termination of Service will be deemed to have occurred as of the date Participant is no longer actively providing services to the Company or any of its Affiliates (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where Participant is employed or the terms of Participant's employment agreement, if any), and unless otherwise expressly provided in this Agreement or determined by the Administrator, Participant's right to vest in the RSUs, if any, will terminate as of such date and will not be extended by any notice period (e.g., Participant's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where Participant is employed or the terms of Participant's employment agreement, if any); the Administrator shall have the exclusive discretion to determine when Participant is no longer actively providing services for purposes of the RSUs (including whether Participant may still be considered to be providing services while on a leave of absence);

(l) unless otherwise provided in the Plan or by the Administrator, the RSUs and the benefits evidenced by this Agreement do not create any entitlement to have the RSUs or any such benefits transferred to, or assumed by, another company, nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the Shares; and

(m) the following provisions apply if Participant is providing services outside the United States:

(i) the RSUs and any shares acquired under the Plan, and the income and value of same, are not part of normal or expected compensation or salary for any purpose; and

(ii) neither the Company nor any Affiliate shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the RSUs or any amounts due to Participant pursuant to the settlement of the RSUs or the subsequent sale of any Shares acquired upon such settlement.

2.18 Language. If Participant receives this Agreement or any other document relating to the Plan translated into a language other than English, and if the meaning of the translated version is different than the English version, the English version will control.

2.19 Foreign Asset/Account and Exchange Control and Tax Reporting. Participant acknowledges that, depending on Participant's country, Participant may be subject to foreign asset/account, exchange control and/or tax reporting requirements as a result of the acquisition, holding and/or transfer of shares or cash (including dividends received or the proceeds arising from the sale of shares) derived from participation in the Plan, in, to and/or from a brokerage/bank account or legal entity located outside Participant's country. The Applicable Laws of Participant's country may require that Participant report such accounts, assets, the balances therein, the value thereof and/or the transactions related thereto to the applicable authorities in such country. Participant acknowledges that Participant is responsible for ensuring compliance with any applicable foreign asset/account, exchange control and tax reporting requirements and should consult Participant's personal legal advisor on these matters.

2.20 Insider Trading Restrictions/Market Abuse Laws. Participant acknowledges that, depending on Participant's country, Participant may be subject to insider trading restrictions and/or market abuse laws, which may affect Participant's ability to acquire or sell shares or rights to shares under the Plan during such times when Participant is considered to have "inside information" regarding the Company (as defined by the laws in Participant's country). Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable insider trading policy of the Company. Participant acknowledges that Participant is responsible for ensuring compliance with any applicable restrictions and should consult Participant's personal legal advisor on these matters.

2.21 Appendix. Notwithstanding any provisions in this Agreement, the RSUs shall be subject to any special terms and conditions set forth in the Appendix, if any. Specifically, in the event Participant resides or relocates to one of the countries included in the Appendix, if any, the terms and conditions for such country will apply to Participant to the extent the Company determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Appendix constitutes a part of this Agreement.

## DASAN ZHONE SOLUTIONS, INC.

### NON-EMPLOYEE DIRECTOR COMPENSATION PROGRAM

**Effective Date: September 9, 2016**

Non-employee members of the board of directors (the “**Board**”) of DASAN Zhone Solutions, Inc. (the “**Company**”) shall be eligible to receive cash and equity compensation, as set forth in this Non-Employee Director Compensation Program (this “**Program**”). The cash and equity compensation described in this Program shall be paid or be made, as applicable, automatically and without further action of the Board, to each member of the Board who is not an employee of the Company or any parent or subsidiary of the Company (each, a “**Non-Employee Director**”) who may be eligible to receive such cash or equity compensation, unless such Non-Employee Director declines the receipt of such cash or equity compensation by written notice to the Company. This Program shall remain in effect until it is revised or rescinded by further action of the Board. This Program may be amended, modified or terminated by the Board at any time in its sole discretion. The terms and conditions of this Program shall supersede any prior cash and/or equity compensation arrangements between the Company and any of its Non-Employee Directors. No Non-Employee Director shall have any rights hereunder, except with respect to the awards granted pursuant to this Program.

#### 1. Cash Compensation.

(a) Annual Retainers. Each Non-Employee Director shall be eligible to receive an annual retainer of \$20,000 for service on the Board; provided, however, that a Non-Employee Director may elect in writing prior to the date of payment to receive all or a portion of his or her annual retainer in the form of such number of fully vested shares of the Company’s common stock as is equal to (i) the amount of the annual retainer the Non-Employee Director has elected to receive in the form of shares of the Company’s common stock, divided by (ii) the closing price per share of the Company’s common stock on the Nasdaq Stock Market (or such other established stock exchange or national quotation system on which the stock is then traded) on the date of payment. Such shares shall be issued automatically on the date of payment pursuant to the Zhone Technologies, Inc. Amended and Restated 2001 Stock Incentive Plan or any other applicable Company equity incentive plan then-maintained by the Company (the “**Equity Plan**”).

(b) Meeting Stipends. Each Non-Employee Director shall be eligible to receive a \$2,000 stipend for each Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee meeting attended. Notwithstanding the foregoing, the Chairperson of the Audit Committee shall be eligible to receive a \$4,000 stipend for each Audit Committee attended.

2. Equity Compensation. Non-Employee Directors shall be granted the equity awards described below. The awards described below shall be granted under and shall be subject to the terms and provisions of the Equity Plan and shall be granted subject to the execution and delivery of award agreements, including attached exhibits, in substantially the forms previously approved by the Board, setting forth the vesting schedule applicable to such awards and such other terms as may be required by the Equity Plan. All applicable terms of the Equity Plan apply to this Program as if fully set forth herein, and all grants of stock awards hereby are subject in all respects to the terms of the Equity Plan.

(a) Annual Awards. A Non-Employee Director who (i) is serving on the Board as of the date of any annual meeting of the Company’s stockholders and (ii) will continue to serve as a Non-Employee Director immediately following such meeting, shall be automatically granted an option to purchase 50,000 shares of the Company’s common stock on the date of such annual meeting (an “**Annual Option Award**”); provided, however, that any such Non-Employee Director may elect, prior to the date of the annual meeting, to receive 15,000 restricted stock units (an “**Annual Restricted Stock Unit Award**”) instead. The awards described in this Section 2(a) shall be referred to as “**Annual Awards**.”

#### (b) Terms of Awards Granted to Non-Employee Directors

(i) Purchase Price. The per share exercise price of each Annual Option Award granted to a Non-Employee Director shall equal the Fair Market Value (as defined in the Equity Plan) of a share of the Company’s common stock on the date the option is granted.

(ii) Vesting. Each Annual Option Award shall vest and become exercisable over four years following the grant date as follows: 1/48<sup>th</sup> of the shares subject to the Annual Option Award will vest on the last day of each one-month period of the Non-Employee Director’s continuing in service on the Board following the grant date. Each Annual Restricted Stock Unit Award will vest over four years following the grant date as follows: twenty five percent (25%) of the Annual Restricted Stock Unit Awards will vest on each of the first four anniversaries of the grant date, subject to the Non-Employee Director continuing in service on the Board through each such vesting date. No portion of an Annual Award which is unvested and/or exercisable at the time of a Non-Employee Director’s termination of service on the Board shall become vested and/or exercisable thereafter, unless otherwise determined by the Board. All of a Non-Employee Director’s Annual Awards shall vest in full upon the occurrence of a Change in Control (as defined in the Equity Plan), to the extent outstanding at such time.

(iii) Term. The term of each Annual Option Award granted to a Non-Employee Director shall be ten (10) years from the date the option is granted.

3. Reimbursements. The Company shall reimburse each Non-Employee Director for all reasonable, documented, out-of-pocket travel and other business expenses incurred by such Non-Employee Director in the performance of his or her duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures as in effect from time to time.

\* \* \* \* \*

## DASAN Zhone Solutions, Inc.

## List of Subsidiaries

DASAN Zhone Solutions, Inc. had the following subsidiaries at December 31, 2016:

<u>Name</u>	<u>Organized under the laws of</u>
Ark Electronic Products, Inc.	Florida
Astarte Fiber Networks, Inc.	Colorado
DASAN Network Solutions, Inc.	United States
DASAN Network Solutions, Inc. (Korea)	Korea
DASAN Network Solutions, Japan Co., Ltd. (Formerly: HandySoft Japan Co., Ltd.)	Japan
DASAN Vietnam Co., Ltd.	Vietnam
Osicom Technologies Europe Limited	United Kingdom
Paradyne Canada, LTD	Canada
Paradyne Corporation	Delaware
Paradyne Finance Corp.	Delaware
Paradyne Networks, Inc.	Delaware
Paradyne Worldwide Corporation	Delaware
Premisys Communications, Inc.	Delaware
Premisys Communications Ltd.	United Kingdom
R-Net International, Inc.	Nevada
Sciteq Communications, Inc.	Nevada
Simpulan Mutiara Sdn. Bhd. ***	Malaysia
Sorrento Networks Corporation	Delaware
Sorrento Networks Europe SA	Belgium
Sorrento Networks GmbH *	Germany
Sorrento Networks, SA	France
Sorrento Valley Real Estate Holdings, LLC	California
Xybridge Technologies, Inc.	Texas
Zhone AB	Sweden
Zhone International Ltd.	Cayman Islands
Zhone International Limited	UK
Zhone Technologies Australia PTY LTD **	Australia
Zhone Technologies B.V.	Netherlands
Zhone Technologies Campus, LLC	California
Zhone Technologies De Argentina SRL	Argentina
Zhone Technologies de Colombia Limitada	Colombia
Zhone Technologies do Brasil LTDA	Brazil
Zhone Technologies GMBH	Germany
Zhone Technologies, Inc.	Canada
Zhone Technologies International, Inc.	Delaware
Zhone Technologies KK	Japan
Zhone Technologies Limited	Hong Kong
Zhone Technologies Ltd.	United Kingdom
Zhone Technologies Pte. Ltd.	Singapore
Zhone Technologies S. de R.L. de C.V.	Mexico
Zhone Technologies S.R.L.	Italy
ZTI Merger Subsidiary III, Inc.	Delaware
Zhone Technologies, SA (PTY) LTD	South Africa

**Consent of Independent Registered Public Accounting Firm**

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (Nos. 333-202580, 333-194334, 333-180148, 333-172876, 333-165510, 333-158009, 333-155321, 333-149598, 333-141153, 333-134217, 333-132336, 333-123369, 333-88732, 333-83422, 333-73352, and 333-61956) of DASAN Zhone Solutions, Inc. of our report dated September 27, 2017 relating to the consolidated financial statements, which appears in this Form 10-K.

/s/PricewaterhouseCoopers LLP

San Jose, California  
September 27, 2017

**Consent of Independent Registered Public Accounting Firm**

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-202580, 333-194334, 333-180148, 333-172876, 333-165510, 333-158009, 333-155321, 333-149598, 333-141153, 333-134217, 333-132336, 333-123369, 333-88732, 333-83422, 333-73352, and 333-61956) of DASAN Zhone Solutions, Inc. (formerly, DASAN Network Solutions, Inc.) of our report dated July 28, 2016, except with respect to the restatement described in Note 1(d) and in Note 13, and with respect to reverse stock split described in Note 1(h), as to which the date is September 27, 2017 relating to the consolidated financial statements which appears in this Form 10-K.

/s/ Samil PricewaterhouseCoopers  
Seoul, Korea  
September 27, 2017

**CERTIFICATION OF CO-CHIEF EXECUTIVE OFFICER  
PURSUANT TO  
RULE 13a-14(a)/15d-14(a)**

I, Il Yung Kim, certify that:

1. I have reviewed this Annual Report on Form 10-K of DASAN Zhone Solutions, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: September 27, 2017

/s/ IL YUNG KIM

Il Yung Kim

President, Chief Executive Officer and Acting Chief  
Financial Officer and Director

**SECTION 1350 CERTIFICATION**

Pursuant to 18 U.S.C. Section 1350, Il Yung Kim and James Norrod, Co-Chief Executive Officers of DASAN Zhone Solutions, Inc. (the "Company"), and Kirk Misaka, Chief Financial Officer of the Company, each hereby certify that, to their knowledge:

1. The Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: September 27, 2017

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/s/ IL YUNG KIM

Il Yung Kim

President, Chief Executive Officer and Acting Chief Financial Officer and Director