| Identiv, Inc.  |
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| Form 10-K      |
| March 28, 2017 |

**UNITED STATES** 

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 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 0-29440

IDENTIV, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware 77-0444317
(State or other jurisdiction of Incorporation or organization) Identification Number)

2201 Walnut Avenue, Suite 100, Fremont, California 94538 (Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code:

(949) 250-8888

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

None

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

Common Stock, \$0.001 par value, and associated Preferred Share Purchase Rights

(Title of Class)

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes

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 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 or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated

filer Accelerated filer Non-accelerated filer Smaller Reporting Company (do not check if smaller reporting company)

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

Based on the closing sale price of the Registrant's Common Stock on the NASDAQ National Market System on 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 \$19,394,700.

At March 6, 2017, the Registrant had outstanding 11,109,204 shares of Common Stock, excluding 727,066 shares held in treasury.

DOCUMENTS INCORPORATED BY REFERENCE

| Designated portions of the Company's Proxy Statement to be filed within 120 days after the Registrant's fiscal year er of December 31, 2016 are incorporated by reference into Part II, Item 5 and Part III of this Report. |
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| of Becomber 31, 2010 are incorporated by reference into 1 art 11, from 3 and 1 art 111 of this respons  |
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Identiv, Inc.

# Form 10-K

For the Fiscal Year Ended December 31, 2016

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### Statement Regarding Forward Looking Statements

This Annual Report on Form 10-K ("Annual Report"), including the documents incorporated by reference in this Annual Report, contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. For example, statements, other than statements of historical facts regarding our strategy, future operations and growth, financial position, projected results, estimated revenues or losses, projected costs, prospects, plans, market trends, competition and objectives of management constitute forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "will," "believe," "could," "should," "would," "may," "anticipate," "inter-"estimate," "expect," "project" or the negative of these terms or other similar expressions. Although we believe that our expectations reflected in or suggested by the forward-looking statements that we make in this Annual Report are reasonable, we cannot guarantee future results, performance or achievements. You should not place undue reliance on these forward-looking statements. All forward-looking statements speak only as of the date of this Annual Report. While we may elect to update forward-looking statements at some point in the future, we specifically disclaim any obligation to do so, even if our expectations change, whether as a result of new information, future events or otherwise. We also caution you that such forward-looking statements are subject to risks, uncertainties and other factors, not all of which are known to us or within our control, and that actual events or results may differ materially from those indicated by these forward-looking statements. We disclose some of the factors that could cause our actual results to differ materially from our expectations discussed elsewhere in this Annual Report. These cautionary statements qualify all of the forward-looking statements included in this Annual Report that are attributable to us or persons acting on our behalf.

Identiv and the Identiv logo are trademarks of Identiv, Inc., registered in many jurisdictions worldwide. Certain product and service brands are also trademarks or registered trademarks of the Company, including HIRSCH, idOnDemand, Scramblepad, TouchSecure, and Velocity. Other product and brand names not belonging to Identiv that appear in this document may be trademarks or registered trademarks of their respective owners.

Each of the terms the "Company," "Identiv," "we" and "us" as used herein refers collectively to Identiv, Inc. and its wholly-owned subsidiaries, unless otherwise stated.

PART I

# ITEM 1.BUSINESS Overview

Identiv is a global security technology company that secures and manages access to physical places, things and information. Global organizations in government, education, retail, transportation, healthcare and other markets rely upon our solutions. We empower them to create secure and convenient experiences in schools, government offices, factories, critical infrastructure, transportation, hospitals and virtually every type of facility and for a wide range of products.

Our operating segments focus on the following solutions:

- Physical access solutions, securing buildings via an integrated access control system, included in our Premises ("PACS") segment.
- Information security solutions, securing enterprise information access across PCs, networks, email, login, and printers via delivery of smart card reader products, included in our Identity segment.
- Radio frequency identification ("RFID") based solutions for use in a wide range of applications from asset tracking to product authenticity, product ease-of-use (e.g. pairing), transportation access and other applications sometimes included in the Internet of Things. The RFID devices are embedded into access cards, transponders and other credentials that enable frictionless access to and interaction with the physical world.

The foundation of our business is our expertise in RFID, smart card technology, and access control, our close customer relationships that allow us to develop customer-relevant products, and our core value of quality.

To deliver these solutions, we have organized our operations into four reportable business segments, principally by product families: PACS, Identity, Credentials, and All Other.

#### **PACS**

The foundation of our physical access platform is the Hirsch line of controllers including the advanced MX line, Hirsch's Velocity management software and a wide range of integrations that provide Velocity/MX's unique flexibility across a wide range of industries and implementations. We have further extended our physical access platform with our Identiv Connected Physical Access Manager ("ICPAM") software, derived from Cisco's Physical Access Manager ("CPAM") system and available in partnership with Cisco. Both of these platforms are available with our MX multi-door controllers as well as our edge controllers, which are targeted as one to two door installations and leverage existing Ethernet infrastructure ("Power-over-Ethernet"). Additionally, we sell either individual components or complete bundled solutions which can include any or all among software, edge controllers, multi-door panels, access readers, access cards and other components.

Our modular Hirsch MX controllers are designed to be scalable, allowing customers to start with a small system and expand over time. Hirsch MX controllers can operate autonomously, whether as a single controller or as part of a networked system with Velocity software. The Hirsch Velocity software platform enables centralized management of access and security operations across an organization, including control of doors, gates, turnstiles, elevators and other building equipment, monitoring users as they move around a facility, preventing unwanted access, maintaining compliance and providing a robust audit trail.

To our price/performance/quality-leading commercial offerings, we have added what we believe to be the highest performance, lowest per-door cost access control system for the U.S. federal government security mandate known as the Federal Identity, Credential and Access Management ("FICAM") architecture. This brings all of the advantages

above into the next generation of physical security for the U.S. government departments and agencies to achieve FIPS 201 compliance.

Our TouchSecure ("TS") door readers provide unique features to support a wide range of security standards. We support the majority of legacy card credentials with a robust next-generation platform that can help companies migrate to more secure credentials and technologies, including smart cards, near field communication ("NFC") and government-issued credentials including CAC, PIV, PIV-I and others. Additionally, our Scramblepad readers employ numerical scrambling on the keypad to protect access codes from being stolen as they are entered, and providing both secure two-factor authentication and convenient alternative-factor access.

In addition to our core products, we have a range of product initiatives to leverage leading technology advances across mobile, biometric, machine-learning and other areas, to provide convenient, frictionless, low-cost yet highly secure physical access. We invest independently and in partnership with other leading technology companies in these emerging aspects of access enabling platforms.

#### Identity

Our Identity products include smart card readers, which includes a broad range of contact, contactless, portable and mobile smart card readers, tokens and terminals that are utilized around the world to enable logical access (i.e., PC, network or data access) and security and identification applications, such as national ID, payment, e-Health and e-Government.

With over 20 years of smart card reader, application and token experience, we are known for our expertise in this complex ecosystem. We combine our deep technical expertise with an optimized supply chain, to provide the most optimal, cost-effective and high-quality smart card-based products. Whether Identiv branded products, original equipment manufacturers ("OEM") branded, or embedded chips or modules, our position is as the trusted business solution provider for all users and issuers of smart cards and embedded-chip applications.

Related to our reader product line, we are a leading provider in the definition and provisioning of access cards and other devices that allow users to conveniently and securely access their facilities and resources, and to empower facilities and security administrators to deploy customized solutions with an optimal mix of cost, security and convenience to their user community, whether students, hospital patients, military and government personnel, consumers or other users.

#### Credentials

Our Credentials segment include NFC and RFID products, including inlays and inlay—based and other cards, labels, tags and stickers, as well as other radio frequency ("RF") and integrated circuits ("IC") components and are generally grouped into access cards and transponders. Our TS Cards product line, we believe, is the first complete solution to allow customers to pay only for the most basic low-frequency proximity access technology while having the ability to evolve to the higher-security high-frequency and highest-security PKI-based access credentials. This product line exemplifies our values: we place no burden on our customers, instead providing the most cost-effective solution to their basic needs; and then delivering within this platform the ability for them to move to higher-level needs and capabilities, when they want, when they are ready and when they will realize economic and experience benefits.

Our transponder products span the full range of high frequency ("HF") and ultra-high frequency ("UHF") technologies. Our differentiation is analogous to application-specific integrated circuits ("ASICS") in the semiconductor market. We leverage our flexible platform, our deep technical expertise and our infrastructure and supply chain to deliver solutions optimized for our customers' business goals. We believe we are more responsive, more flexible, more experienced in business-optimized solutions and have a better track record of sustained delivery of solution-specific, high-quality RFID devices than our competitors. These products are manufactured in our state-of-the-art facility in Singapore and are used in a diverse range of physical applications, including electronic entertainment such as virtual reality ("VR"), games, loyalty cards, mobile payment systems, transit and event ticketing, brand authenticity from pharmaceuticals to consumer goods, hospital resource management, cold-chain management and many others.

Leveraging our expertise in RFID, physical access and physical authentication, we are developing new solutions to extend our platforms across a wide variety of physical use cases. The next major opportunity in our connected world is the Internet of things, which fundamentally is about physical things. We believe our core strength in physical access and physical instrumentation (RFID) markets, our well-established platforms and our deep knowledge of the relevant technologies, position us well in this growth market.

#### All Other

The All Other segment includes legacy product lines, such as Chipdrive and Digital Media readers. The products included in the All Other segment do not meet the quantitative thresholds for determining reportable segments and therefore have been combined for reporting purposes. They are not expected to generate revenues going beyond 2016.

We primarily conduct sales and marketing activities in each of the markets in which we compete, utilizing our own sales and marketing organization to solicit prospective channel partners and customers, provide technical advice and support with respect to products, systems and services, and manage relationships with customers, distributors and/or OEMs. We utilize indirect sales channels that may include OEMs, dealers, systems integrators, value added resellers, resellers or Internet sales, although we also sell directly to end users. In support of our sales efforts, we participate in industry events and conduct sales training courses, targeted marketing programs, and ongoing customer, channel partner and third-party communications programs.

Our corporate headquarters are located in Fremont, California. We maintain research and development facilities in California, Chennai, India, Munich Germany, and local operations and sales facilities in Germany, the United Kingdom, Hong Kong, Singapore, India and the United States. We were founded in 1990 in Munich, Germany and incorporated in 1996 under the laws of the State of Delaware.

For a discussion of our net revenue by segment and geographic location, see Note 9, Segment Reporting and Geographic Information in the accompanying notes to our consolidated financial statements.

#### Market Strategy

Our corporate priority is to drive revenue growth by leveraging our core expertise from our existing product portfolio and our enduring customer relationships, as well as our significant experience addressing solutions across multiple markets, including government, transportation, healthcare, education, banking, critical infrastructure and others. Our common advantages across all of our segments, in addition to a shared set of technologies and supply chain, is our more than 20 years of expertise and sustained reputation as the go-to source for the top-quality, most reliable, most cost-effective solution. We drive an intense commitment to our customers, to ensure we are delivering business-supporting solutions to them and honoring a straightforward, respectful, trustworthy and business-based relationship at all times, and for a long time. In every one of our segments we have this long track-record within the industry, and this position as a trusted advisor, supplier and business partner.

In our PACS segment, we believe that our more than 20 years' experience delivering physical security solutions to U.S. Government customers has provided us with significant expertise and a quality reputation. Our products enable compliance with federal directives and standards implemented over the past decade, including Homeland Security Presidential Directive ("HSPD") 12 and Federal Information Processing Standard ("FIPS") 201, which defines a common standard known as the Personal Identity Verification ("PIV") credential, used by all U.S. Government employees and contractors. We are a leading supplier of physical access control solutions to both federal and state government customers, including agencies within the Department of Justice, Department of the Treasury, the FBI, and the U.S. Marshalls. As a pioneering adopter of physical security technologies and protocols employed on a large scale, the U.S. Government continues to demand the best of breed, which we have been delivering to an increasing range of agencies and departments.

In our increasingly connected world, governments, enterprises, commercial businesses, organizations of every size, and individuals, are continually challenged to protect their physical environments and resources, which are vulnerable to increasingly determined attacks. As the Internet of Things results in more convenience but also more physical vulnerability, we believe we are positioned to deliver both the convenience promised by the Internet of Things and the physical security required by it.

We develop and sell integrated physical access control solutions to government and enterprise customers worldwide. Our systems integrate access control, video surveillance, intrusion detection, building management and other network-based systems using a wide range of access cards, including PIV cards, smart cards, RFID cards and biometrics in order to successfully secure facilities and resources.

Our offerings include Hirsch MX controllers, Velocity management software, ICPAM software edge controller systems. These combined with door readers and access cards provide scalable systems, allowing customers to start with a small system and expand over time. Hirsch and ICPAM controllers can operate autonomously, whether as a single controller or as part of a networked system with Velocity or ICPAM software. The Hirsch Velocity software platform enables centralized management of access and security operations across an organization, including control of doors, gates, turnstiles, elevators and other building equipment, monitoring users as they move around a facility, preventing unwanted access, maintaining compliance and providing a robust audit trail. Our door readers provide unique features to support a number of security environments and standards. For example, our Scramblepad readers employ numerical scrambling on the keypad to protect access codes from being stolen as they are entered. Our TS readers support the majority of card credentials with a robust platform that can help companies expand to encompass other credentials and technologies, including smart cards, NFC, mobile government-issued cards.

In our Identity segment, we also have over 20 years' experience as a leading global supplier of smart card readers, and perhaps the industry's most trusted. We offer a broad range of contact, contactless and mobile smart card readers,

tokens and terminals that are utilized around the world to enable access and security applications, such as national ID cards, payment and eHealth and eGovernment. We have supplied millions of smart card readers to the Department of Defense and other federal agencies. To support the growing demand for solutions that provide secure access via mobile devices, sometimes known as "bring your own device" ("BYOD"), our mobile readers allow users to securely authenticate using iOS<sup>TM</sup> or Android<sup>TM</sup> devices, when they present standard credentials issued by the U.S. Government, including the PIV card and its predecessor, the Common Access Card ("CAC"), as well as the PIV-I card issued by commercial contractors under a similar security standard.

In our Credentials segment, again we bring many years of experience and industry-wide respect. We design and manufacture a broad range of NFC and RFID products, including inlays and inlay-based cards, labels, tags and stickers, as well as other RF and IC components, across HF and UHF technologies, and from basic transactional devices to high-end microprocessor-based devices. We have expanded our solutions still further, incorporating the most advanced flexible, rechargeable battery technology to bring active-device capabilities to the Cold Chain market and opening the nearly-unlimited potential of active sensor-enabled applications. Our

inlays and converted inlay products are used in a diverse range of applications, including electronic entertainment, loyalty schemes, mobile payment, transit and event ticketing, and others, with many more to come.

Leveraging our expertise in RFID and NFC technology, and mobility, we are developing new solutions for a wide range of physical, connected items, also known as the "Internet of Things." Market analysts estimate that by 2020 the number of physical things connected to the Internet will grow into the tens of billions. These will include household appliances, vehicles, medicines, home security systems, books, luggage, jewelry, toys and a host of other objects. We believe the growth of the Internet of Things creates significant opportunities to provide physical access and authentication into nearly every industry, worldwide. We plan to leverage our physical access and RFID-based physical device-management expertise to provide leading solutions as our customers, and our customers' customers, embrace the Internet of Things.

#### Customers

We sell to customers worldwide in a diverse range of markets, including government, enterprise, consumer, education, healthcare and transportation. Sales to our ten largest customers accounted for 34% of total net revenue in 2016 and 35% of total net revenue in 2015. A significant amount of revenue is sourced from sales of products and systems to our OEM partners and an indirect sales network who sell to various entities within the U.S. federal government sector. U.S. federal government sales are primarily delivered through our OEM partners and an indirect sales network or are priced using published General Service Administration schedules.

#### Sales and Marketing

We primarily conduct our own sales and marketing activities in each of the markets in which we compete, utilizing our own sales and marketing organization to solicit prospective channel partners and customers, provide technical advice and support with respect to products, systems and services, and manage relationships with customers, distributors and/or OEMs. We sell our smart card readers and RFID/NFC products directly to end users and utilize indirect sales channels that may include OEMs, dealers, systems integrators, value added resellers, resellers or Internet sales. We sell our physical access control solutions and access card services primarily through systems integrators, dealers and value added partners, although we also sell directly to end users. In support of our sales efforts, we participate in trade shows and conduct sales training courses, targeted marketing programs, and ongoing customer, channel partner and third-party communications programs.

#### Competition

The market for security solutions is competitive and characterized by rapidly changing technology and evolving standards in the industry as a whole and within specific markets. We believe that competition for security solutions is likely to intensify as a result of an ongoing increase in demand for our solutions that help converge physical and logical access control systems and RFID and NFC products to enable expansion of the connected world.

We face a range of competition for our products, systems and solutions. Competition for our smart card readers and related products primarily comes from several well-established companies, including Gemalto NV and OMNIKEY/HID Global (a division of ASSA ABLOY AB), as well as from a number of smaller suppliers in Asia. Competition for our RFID inlays and inlay-based products comes from a small number of organizations that understand the specialized processes and have the capital equipment required to serve the RFID/NFC technology market. Competitors in this market include SMARTRAC NV, who in the last few years has acquired former competitors UPM RFID and KSW Microtec, as well as a number of inlay conversion companies in Asia. In the market for NFC tags, readers and other solutions, we face competition from traditional smart card reader and RFID technology providers, including Gemalto and ASSA ABLOY for NFC readers, and SMARTRAC and other inlay converters for NFC tags.

Enterprise-class physical access control solutions are available from multiple suppliers. In this market we primarily compete with Lenel Systems International (a division of United Technologies Corp.), Software House (a division of Tyco International Ltd.), Gallagher Group Ltd, Honeywell International Inc., and AMAG Technology (a division of G4S plc).

We may in the future face competition from other parties that develop physical security and RFID solutions based upon approaches similar to or different from those employed by us. In addition, these markets for security solutions may ultimately be dominated by approaches other than the approach marketed by us. We believe that the principal competitive factors affecting the market for our products, systems and solutions include:

### technical features;

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the ability of channel partners to effectively integrate multiple products and systems in order to address customer requirements including full system capabilities, cost of ownership and ease of use;

quality and reliability;

the ability of suppliers to quickly develop new products and integrated solutions to satisfy new customer requirements;

ease of use;

strength of sales and distribution channels; and

price and total cost of system ownership.

While we believe that we compete favorably within our market environment, our ability to continue to successfully compete is subject to a variety of factors, as further discussed below in "Item 1A. Risk Factors" in this Annual Report on Form 10-K.

### Seasonality and Other Factors

In our business overall, we may experience significant variations in demand for our offerings from quarter to quarter, and overall we typically experience a stronger demand cycle in the second half of our fiscal year. Sales of our physical access control solutions to U.S. Government agencies are subject to annual government budget cycles and generally are highest in the third quarter of each year; however the impact of overall budget reductions from actions such as government shutdowns and potential sequester actions on this seasonal trend is uncertain. Sales of our smart card readers and reader chips, many of which are sold to government agencies, are impacted by testing and compliance schedules of government bodies as well as roll-out schedules for application deployments, both of which contribute to variability in demand from quarter to quarter. Further, this business is typically subject to seasonality based on commercial and government budget cycles, with lower sales in the first half, and in particular the first quarter of the year, and the highest sales in the second half of each year.

In addition to the general seasonality of demand, overall U.S. Government expenditure levels have a significant impact on demand for our products due to the significant portion of end demand for our products that we believe is sourced from U.S. Government agencies. Therefore, any significant reduction in U.S. Government spending could adversely impact our financial results and could cause our operating results to fall below any guidance we provide to the market or below the expectations of investors or security analysts.

#### **Backlog**

We typically do not maintain a significant level of backlog and revenue in any quarter significantly depends on contracts entered into or orders received and shipped in that quarter. The majority of our sales are made primarily pursuant to purchase orders for current delivery or agreements covering purchases over a period of time. While our customer contracts generally do not require fixed long-term purchase commitments, from time to time we do enter into customer contracts where delivery of products, systems or services is ongoing or is scheduled over multiple quarters or years. In view of our order and shipment patterns, and because of the possibility of customer changes in delivery schedules or cancellation of orders, we do not believe that the ongoing arrangements we enter into provide meaningful backlog figures or are necessarily indicative of actual sales for any succeeding period.

### Research and Development

We have made and continue to make significant investments in research and the development of solutions for customers in the government, enterprise, consumer and commercial markets. We focus the bulk of our research and development activities on the development of products and solutions for new and emerging market opportunities. In addition to developing core technology that can be leveraged across a number of products, our engineering team works with product managers, applications engineers, distribution partners and customers to develop new products, product enhancements, software and systems to meet customer and market requirements. We also strive to develop and maintain close relationships with key suppliers of components and technologies in order to be able to quickly introduce new offerings that incorporate the latest technological advances. New offerings introduced across our businesses resulting in new inventions provide opportunities for new patent applications.

Our recent research and development activities have included enhancements for our physical access controller platforms, which address new market trends such as secure mobile access and extends our available customer base to include smaller enterprises. On an ongoing basis, we invest in the development of new contactless readers, tokens and modules, new physical access readers to enable converged physical and logical access, and in the extension of our contactless platforms. In addition, we continue to enhance and broaden our RFID and NFC inlay designs and technologies in the areas of security, enablement for NFC applications, card manufacturing and other applications.

We attempt to balance our investment in new technologies, products and services with careful management of our development resources so that our increased development activities do not result in unexpected or significant changes in our overall spending on

research and development. Research and development expenses were \$6.5 million in 2016 and \$9.2 million in 2015 and we capitalized expense related to development of our card issuance services of \$0.2 million in 2016 and \$0.1 million in 2015.

We conduct our research and development activities from several locations around the world. Development of our smart card reader products and technologies primarily takes places in India. Development of our physical access control solutions primarily takes place in California. Development of our RFID and NFC products and technology primarily takes place in Singapore.

### Proprietary Technology and Intellectual Property

Our success depends partly upon our proprietary technology. We currently rely on a combination of patent, copyright and trademark laws, trade secrets, confidentiality agreements and contractual provisions to protect our proprietary rights, which afford only limited protection. Although we often seek to protect our proprietary technology through patents, it is possible that no new patents will be issued, that our proprietary products or technologies are not patentable, and that any issued patent will fail to provide us with any competitive advantages. The core of our proprietary technology advantage is the combination of our advanced technical expertise combined with our intimate customer knowledge, enabling us to develop and bring to market products uniquely positioned to deliver benefits to customers. This is an intellectual property advantage more characterized by trade secrets and unique relationships than formal patents.

There has been a great deal of litigation in the technology industry regarding intellectual property rights and from time to time we may be required to use litigation to protect our proprietary technology. This may result in our incurring substantial costs and there is no assurance that we would be successful in any such litigation. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or to use our proprietary information and software without authorization. In addition, the laws of some foreign countries do not protect proprietary and intellectual property rights to the same extent as do the laws in the U.S. Because many of our products are sold and a substantial portion of our business is conducted outside the U.S., our exposure to intellectual property risks may be higher. Our means of protecting our proprietary and intellectual property rights may not be adequate. There is a risk that our competitors will independently develop similar technology, duplicate our products or design around our patents or other intellectual property rights. If we are unsuccessful in protecting our intellectual property or our products or technologies are duplicated by others, our business could be harmed.

In addition, we have from time to time received claims that we are infringing upon third parties' intellectual property rights. Future disputes with third parties may arise and these disputes may not be resolved on terms acceptable to us. As the number of products and competitors in our target markets grow, the likelihood of infringement claims also increases. Any claims or litigation may be time-consuming and costly, divert management resources, cause product shipment delays, or require us to redesign our products, accept product returns or to write-off inventory. Any of these events could have a material adverse impact on our business and operating results.

We have a portfolio of approximately 30 patent families (designs, patents, utility models, patents pending and exclusive licenses) in individual or regional filings, covering products, electrical and mechanical designs, software systems and methods and manufacturing process ideas for our various businesses. We also submitted and have pending U.S. and foreign patent filings in RFID tags, converged access readers and systems, smart card manufacturing methods, authentication and NFC offerings. Additionally, we leverage our own ASIC designs for smart card interface in some of our reader devices. However, none of our patents are currently material to our business.

# Manufacturing and Sources of Supply

We utilize a combination of our own manufacturing facilities and the services of contract manufacturers in various countries around the world to manufacture our products and components. Our physical access keypads, controllers and

software are manufactured primarily in California, using locally sourced components. The majority of our smart card reader products and components are manufactured in Singapore and China. Our RFID and NFC inlays and inlay-based products such as labels and tags are manufactured and assembled by our own internal manufacturing teams in Singapore primarily using locally sourced components and are certified to the ISO 9001:2000 quality manufacturing standard.

We have implemented formal quality control programs to satisfy customer requirements for high quality and reliable products. To ensure that products manufactured by third parties are consistent with internal standards, our quality control programs include management of all key aspects of the production process, including establishing product specifications, selecting the components to be used to produce products, selecting the suppliers of these components and negotiating the prices for certain of these components. In addition, we may work with suppliers to improve process control and product design.•

We believe that our success will depend in large part on our ability to provide quality products and services while ensuring the highest level of security for our products during the manufacturing process. In the event any of our contract manufacturers are unable

or unwilling to continue to manufacture our products, we may have to rely on other current manufacturing sources or identify and qualify new contract manufacturers. Any significant delay in our ability to obtain adequate supplies of our products from current or alternative sources would harm our business and operating results.

For the majority of our product manufacturing, we utilize a global sourcing strategy that serves all business solution areas within the company, which allows us to achieve economies of scale and uniform quality standards for our products and support higher gross margins.

On an ongoing basis, we analyze the need to add alternative sources for both our products and components. For example, we currently utilize the foundry services of external suppliers to produce our ASICs for smart cards readers and inlays, and we use chips and antenna components from third-party suppliers in our RFID and NFC inlays and contactless smart card readers. Wherever possible, we have qualified additional sources of supply for components. However, a risk remains that we may be adversely impacted by an inadequate supply of components, price increases, late deliveries or poor component quality. In addition, some of the basic components used in our reader products, such as semiconductors, may at any time be in great demand. This could result in components not being available to us in a timely manner or at all, particularly if larger companies have ordered significant volumes of these components, or higher prices being charged for components we require.

#### **Employees**

As of December 31, 2016, we had 222 employees, of which 58 were in research and development, 66 were in sales and marketing, 27 were in general and administrative and 71 were in manufacturing and related functions. We are not subject to any collective bargaining agreements and, to our knowledge, none of our employees are currently represented by a labor union. To date, we have experienced no work stoppages and believe that our employee relations are generally good.

#### Foreign Operations; Properties

We operate globally, with corporate headquarters in Fremont, California. We also maintain leased facilities in Germany, Hong Kong, India, Japan, Singapore and the United States. We consider these properties adequate for our business needs.

### **Legal Proceedings**

On December 16, 2015, we and certain of our present and former officers and directors were named as defendants in a putative class action lawsuit filed in the United States District Court for the Northern District of California, entitled Rok v. Identiv, Inc., et al., Case No. 15-cv-05775, alleging violations of Section 10(b) of the Exchange Act of 1934 and Rule 10b-5 promulgated thereunder and Section 20(a) of the Exchange Act of 1934. On May 3, 2016, the court-appointed lead plaintiff Thomas Cunningham in the Rok lawsuit filed an amended complaint and a notice of dismissal without prejudice of all current or former officers and directors other than Jason Hart and Brian Nelson. On June 6, 2016, each of us, Jason Hart, and Brian Nelson filed a motion to dismiss for failure to state a claim upon which relief can be granted in the Rok lawsuit; on August 5, 2016, the court granted those motions with leave for the lead plaintiff to file a second amended complaint. On September 12, 2016, the lead plaintiff in the Rok lawsuit filed a second amended complaint. On October 10, 2016, each of us, Jason Hart, and Brian Nelson filed a motion to dismiss that second amended complaint for failure to state a claim upon which relief can be granted in the Rok lawsuit; on January 4, 2017, the court granted those motions with prejudice and entered judgment for us and the other defendants and against the lead plaintiff. On February 6, 2017, the lead plaintiff initiated an appeal of the court's decision in the Ninth Circuit Court of Appeals. Following the lead plaintiff's routine request to extend filing deadlines, which the Court of Appeals approved, the lead plaintiff's opening appellate brief is currently scheduled to be filed by June 14, 2017, the answering briefs of the Company and the other defendants are currently scheduled to be filed by July 14, 2017, and the lead plaintiff's optional reply brief is currently scheduled to be filed by fourteen days from the date of

service of the answering briefs. In addition, three shareholder derivative actions were filed between January and February 2016. On January 1, 2016, certain of our present and former officers and directors were named as defendants, and we were named as nominal defendant, in a shareholder derivative lawsuit filed in the United States District Court for the Northern District of California, entitled Oswald v. Humphreys, et al., Case No. 16-cv-00241-JCS, alleging breach of fiduciary duty and abuse of control claims. On January 25, 2016, certain of our present and former officers and directors were named as defendants, and we were named as nominal defendant, in a shareholder derivative lawsuit filed in the Superior Court of the State of California, County of Alameda, entitled Chopra v. Hart, et al., Case No. RG16801379, alleging breach of fiduciary duty claims. On February 9, 2016, certain of our present and former officers and directors were named as defendants, and we were named as nominal defendant, in a shareholder derivative lawsuit filed in the Superior Court of the State of California, County of Alameda, entitled Wollnik v. Wenzel, et al., Case No. HG16803342, alleging breach of fiduciary duty, corporate waste, gross mismanagement, and unjust enrichment claims. These lawsuits generally allege that we made false and/or misleading statements and/or failed to disclose information in certain public filings and disclosures between 2013 and 2015. Each of the lawsuits seeks one or more of the following remedies: unspecified compensatory damages, unspecified exemplary or punitive damages, restitution, declaratory relief, equitable and injunctive relief, and reasonable costs and attorneys' fees. On May 2, 2016, the court in the Chopra lawsuit entered an order staying proceedings in the Chopra lawsuit

in favor of the Oswald lawsuit, based on a stipulation to that effect filed by the parties in the Chopra lawsuit on April 28, 2016. Similarly, on June 28, 2016, the court in the Wollnik lawsuit entered a stipulated order staying proceedings in the Wollnik lawsuit in favor of the Oswald lawsuit. On June 17, 2016, the plaintiff in the Oswald lawsuit filed an amended complaint. On August 1, 2016, we filed a motion to dismiss for failure by plaintiff to make a pre-lawsuit demand on our board of directors, which motion was heard on October 14, 2016. The judge in the Oswald lawsuit issued an order on November 7, 2016 granting our motion to dismiss, without prejudice. In addition, the court stayed the case so that plaintiff could exercise whatever rights he has under Section 220 of the Delaware General Corporation Law. On or around November 30, 2016, the plaintiff purported to serve a books and records demand under Section 220 of the Delaware General Corporation Law. We have responded to that demand. On March 21, 2017, we and the plaintiff in the Oswald lawsuit filed a stipulation and proposed order lifting the stay of the case, granting the plaintiff leave to amend, and setting a briefing schedule. That stipulation proposed that the judge's stay of the case entered November 7, 2016 be lifted, that a stay of proceedings as to the individual defendants that the judge previously entered remain in place, that the plaintiff may file a second amended complaint on or before April 10, 2017, that we may file a motion to dismiss that second amended complaint on or before May 12, 2017, that the plaintiff's opposition to such a motion to dismiss shall be filed on or before June 12, 2017, that our reply in support of such a motion shall be filed on or before June 30, 2017, and that the hearing on such a motion to dismiss shall be held on August 11, 2017 or such other date as the court may order. On March 22, 2017, the court entered an order approving that stipulation. We intend to vigorously defend against these lawsuits. We cannot currently predict the impact or resolution of each of these lawsuits or reasonably estimate a range of possible loss, if any, which could be material, and the resolution of these lawsuits may harm our business and have a material adverse impact on our financial condition.

From time to time, we could become subject to claims arising in the ordinary course of business or could be named a defendant in additional lawsuits. The outcome of such claims or other proceedings cannot be predicted with certainty and may have a material effect on our financial condition, results of operations or cash flows.

### Availability of SEC Filings

We make available through our website our Annual Reports on Form 10-K,Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and amendments to those reports free of charge as soon as reasonably practicable after we electronically file such reports with the Securities and Exchange Commission ("SEC"). Our Internet address is www.identiv.com. The content on our website is not, nor should it be deemed to be, incorporated by reference into this Annual Report. Additionally, documents filed by us with the SEC may be read and copied at the Public Reference Section of the SEC, 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. Our filings with the SEC are also available to the public through the SEC's website at www.sec.gov.

### Item 1A. Risk Factors

The following discussion of risk factors contains forward-looking statements. These risk factors may be important to understanding any statement in this Form 10-K or elsewhere. The following information should be read in conjunction with Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and related notes in Part II, Item 8, "Financial Statements and Supplementary Data" of this Form 10-K.

Because of the following factors, as well as other factors affecting our financial condition and operating results, past financial performance should not be considered to be an indicator of future performance, and investors should not use historical trends to anticipate results or trends in future periods.

Our revenues and operating results are subject to significant fluctuations and such fluctuations may lead to a reduced market price for our stock.

Our revenues and operating results have varied in the past and will likely continue to fluctuate in the future. We believe that period-to-period comparisons of our operating results are not necessarily meaningful, but security analysts and investors often rely upon these comparisons as indicators of future performance. If our operating results in any future period fall below the expectations of security analysts and investors, or the guidance that we provide, the market price of our stock would likely decline.

Factors that have caused our results to fluctuate in the past and which are likely to affect us in the future include the following:

business and economic conditions overall and in our markets;

the timing and size of customer orders that may be tied to annual or other budgetary cycles, seasonal demand, product plans or program roll-out schedules;

the effects of the U.S. Government spending cuts and other changes in budget allocation or availability that create uncertainty for customers in certain parts of our business;

- the absence of significant backlog in our business;
- eancellations or delays of customer orders or the loss of a significant customer;
- the length of sales cycles associated with our product or service offerings;
- variations in the mix of products and services we sell;
- reductions in the average selling prices that we are able to charge due to competition or other factors;
- our ability to obtain an adequate supply of quality components and to deliver our products on a timely basis;
- our inventory levels and the inventory levels of our customers and indirect sales channels;
- the extent to which we invest in development, sales and marketing, and other expense categories;
- strategic acquisitions, dispositions or organizational restructuring;
  - fluctuations in the value of foreign currencies against the U.S. dollar;
- the cost or impact of litigation; and
- the write-off of investments or goodwill.

Estimating the amount and mix of future revenues is difficult, and our failure to do so accurately could affect our ability to be profitable or reduce the market price for our stock.

Accurately estimating future revenues is difficult because the purchasing patterns of our customers can vary depending upon a number of factors. We sell our smart card readers primarily through a channel of distributors who place orders on an ongoing basis depending on their customers' requirements. As a result, the size and timing of these orders can vary from quarter to quarter. The increasing market demand for RFID and NFC technology is resulting in larger program deployments of these products and components, as well as increasing competition for these solutions. Across our business, the timing of closing larger orders increases the risk of quarter-to-quarter fluctuation in revenues. If orders forecasted for a specific group of customers for a particular quarter are not realized or revenues are not otherwise recognized in that quarter, our operating results for that quarter could be materially adversely affected. In addition, from time to time, we may experience an unexpected increase or decrease in demand for our products resulting from fluctuations in our customers' budgets, purchasing patterns or deployment schedules. These occurrences are not always predictable and can have a significant impact on our results in the period in which they occur.

Failure to accurately forecast customer demand may result in excess or obsolete inventory, which if written down might adversely impact our cost of revenues and financial condition.

In addition, our expense levels are based, in significant part, upon our expectations as to future revenues and are largely fixed in the short term. We may be unable to adjust spending in a timely manner to compensate for any unexpected shortfall in revenues. Any significant shortfall in revenues in relation to our expectations could have an immediate and significant effect on our operating results for that quarter and may lead to a reduced market price for our stock.

Our loan covenants may affect our liquidity or limit our ability to incur debt, make investments, sell assets, merge or complete other significant transactions.

On February 8, 2017, we entered into Loan and Security Agreements with East West Bank ("EWB") and Venture Lending & Leasing VIII, Inc. (collectively referred to as "VLL7 and VLL8"). Our obligations under these agreements are secured by substantially all of our assets. Each of the Revolving Loan Facility and the Term Loan contain customary representations and warranties and customary affirmative and negative covenants, including, limits or restrictions on our ability to incur liens, incur indebtedness, make certain restricted payments, merge or consolidate and dispose of assets. The Revolving Loan Facility also contains various financial covenants. In addition, each of the Revolving Loan Facility and the Term Loan contains customary events of default that entitle the EWB or VLL7 and VLL8, as appropriate, to cause any or all of our indebtedness under the Revolving Loan Facility or the Term Loan, respectively, to become immediately due and payable. The events of default (some of which are subject to applicable grace or cure periods), include, among other things, non-payment defaults, covenant defaults, cross-defaults to other material indebtedness, bankruptcy and insolvency defaults and material judgment

defaults. Upon the occurrence and during the continuance of an event of default, EWB and VLL7 and VLL8 may terminate their lending commitments and/or declare all or any part of the unpaid principal of all loans, all interest accrued and unpaid thereon and all other amounts payable under the Loan and Security Agreements to be immediately due and payable. If repayment of the indebtedness is accelerated, we could face a substantial liquidity problem and may be forced to dispose of material assets or operations, seek to obtain equity capital, or restructure or refinance our indebtedness. Such alternative measures may not be available or successful. Also, our loan covenants may limit our

ability to dispose of material assets or operations or to restructure or refinance our indebtedness. Even if we are able to restructure or refinance our indebtedness, the economic terms may not be favorable to us. Any of the foregoing could have a material adverse effect on our financial condition and results of operations. Our ability to make periodic interest payments and to repay our debt when due depends on our financial and operating performance, which in turn, is subject to prevailing economic and competitive conditions and the other factors. If our cash flow and capital resources are insufficient to fund our debt service obligations, we could face substantial liquidity problems and may be forced to dispose of material assets or operations, seek to obtain equity capital, or restructure or refinance our indebtedness. Such alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations.

If we are not able to secure additional financing when needed, our business could be adversely affected.

We may seek or need to raise additional funds for general corporate and commercial purposes or for acquisitions. Our ability to obtain financing depends on our historical and expected future operating and financial performance, and is also subject to prevailing economic conditions and to financial, business and other factors beyond our control. If we are unable to secure additional financing when desired, our ability to fund our business operations, make capital expenditures, pursue additional expansion or acquisition opportunities, or have resources available to capitalize on other opportunities could be limited, and this could adversely impact our financial results. There can be no assurance that additional capital will be available to us on favorable terms or at all. The sale of additional debt or equity securities may cause dilution to existing stockholders. Any debt or equity securities issued may also provide for rights, preferences or privileges senior to those of our common stock and could impose significant restrictions on our operations.

Acquisitions and strategic investments require substantial resources, expose us to significant risks and may adversely impact our business.

From time to time we may seek to acquire or make investments in companies, products or technologies that we believe complement or augment our existing business, product offerings or technology portfolio. Acquiring and integrating acquired assets into our business exposes us to certain risks.

Executing acquisition or investment transactions and assimilating personnel and operations from an acquired business may require significant attention and resources, which may divert the attention of our management and employees from day-to-day operations and disrupt our business. This may adversely impact our results of operations.

The costs associated with an acquisition may be significant, whether or not the acquisition transaction is successfully concluded. As a result, acquisition activities may reduce the amount of capital available to fund our business. To purchase another company, we may be required to issue additional equity securities, which would result in dilution to our stockholders. Acquisitions may result in the assumption of additional liabilities or debt, including unanticipated liabilities, or charges to earnings for such items as amortization of purchased intangibles or in-process research and development expenses. Such liabilities, indebtedness or charges could have a material and adverse impact on our financial condition and results of operations. Acquisitions and strategic investments may also lead to substantial increases in non-current assets, including goodwill. Write-downs of these assets due to unforeseen business developments may materially and adversely impact our financial condition and results of operations.

Additionally, we have in the past acquired companies that we have subsequently divested, in some cases for less than we paid to acquire the companies. Such divestitures involve risks, such as difficulty separating out portions of or entire businesses, distracting our management team and employees, potential loss of revenue and potentially disrupting customer relationships. We have and may again in the future incur significant costs associated with exit or disposal activities, related impairment charges, or both, if we exit or divest a business or product line. If we are not able to successfully integrate or divest products, technologies, or personnel from businesses that we acquire or divest, or if we are not able to realize the expected benefits of our acquisitions, divestitures, or strategic investments, our

business and financial results could be adversely affected.

Our business and reputation may adversely affected by information technology system failures or network disruptions.

We may be subject to information technology system failures and network disruptions. These may be caused by natural disasters, accidents, power disruptions, telecommunications failures, acts of terrorism or war, computer viruses, physical or electronic break-ins, or other events or disruptions. System redundancy may be ineffective or inadequate, and our disaster recovery planning may not be sufficient for all eventualities. Such failures or disruptions could compromise company or customer data and result in delayed or cancelled orders. System failures and disruptions could also impede the manufacturing and shipping of products, delivery of online services, processing of transactions and reporting of financial results.

Our success depends largely on the continued service and availability of key personnel.

Our future success depends on our ability to continue to attract, retain, and motivate our senior management team as well as qualified technical personnel, particularly software engineers. Competition for these employees is intense and many of our competitors may have greater name recognition and significantly greater financial resources to better compete for these employees. In addition, we have recently experienced a number of changes in our senior management team, including the appointment of a new Chief Financial Officer in early 2017. If we are unable to retain our existing personnel, or attract and train additional qualified personnel, our growth may be limited. All of our key employees are employed on an "at will" basis, meaning either we or the employee may terminate their employment with us at any time. The loss of key employees could slow our product development processes and sales efforts or harm our reputation. Also, our low common stock price may result in difficulty attracting and retaining personnel as stock options and other forms of equity incentives generally comprise a significant portion of our employee compensation. Further, the changes in senior management as well as the restructurings and reductions in force that we have recently experienced may have a negative effect on employee morale and the ability to attract and retain qualified personnel.

Our business could be adversely affected by reductions or delays in the purchase of our products or services for government security programs in the United States and globally.

We derive a substantial portion of our revenues from indirect sales to U.S. federal, state and local governments and government agencies, as well as from subcontracts under federal government prime contracts. Large government programs are an important market for our business, as high-security systems employing physical access, smart card, RFID or other access control technologies are increasingly used to enable applications ranging from authorizing building and network access for federal employees to paying taxes online, to citizen identification, to receiving health care. We believe that the success and growth of our business will continue to be influenced by our successful procurement of government business either directly or through our indirect sales channels. Accordingly, changes in government purchasing policies or government budgetary constraints could directly affect our financial performance. Sales to government agencies and customers primarily serving the U.S. Government, including further sales pursuant to existing contracts, may be adversely affected by factors outside our control, such as the sequester, federal government shutdowns or other Congressional actions to reduce federal spending, and by adverse economic, political or market conditions. A reduction in current or future anticipated sales to the U.S. Government sector could harm our results of operations.

Additionally, we anticipate that an increasingly significant portion of our future revenues will come from government programs outside the U.S., such as electronic national identity, eGovernment and eHealth programs. We currently supply smart card readers, RFID products and credential provisioning and management solutions for various government programs in Europe, Asia and Australia and are actively targeting additional programs in these and other geographic areas. However, the allocation and availability of funding for such programs are often impacted by economic or political factors over which we have no control, and which may cause delays in program implementation, which could negatively impact our sales and results of operations.

Our revenues may decline if we cannot compete successfully in an intensely competitive market.

We target our products at the rapidly evolving market for security technologies. Many of our current and potential competitors have significantly greater financial, technical, marketing, purchasing and other resources than we do. As a result, our competitors may be able to respond more quickly to new or emerging technologies or standards and to changes in customer requirements. Our competitors may also be able to devote greater resources to the development, promotion and sale of products or solutions and may be able to deliver competitive products or solutions at a lower end user price.

We also experience indirect competition from certain of our customers who currently offer alternative products or solutions or are expected to introduce competitive offerings in the future. For example, in our PACS business, many of our dealer channel partners act as system integrators, providing installation and service, and therefore carry competitive lines of products and systems. This is a common practice within the industry as the integrators need access to multiple lines in order to support all potential service and user requirements. Depending on the technical competence of their sales forces, the comfort level of their technical staff with our systems and price pressures from customers, these integrators may choose to offer a competitor's product. There is also business pressure to provide some level of sales to all vendors to maintain access to a range of products and systems.

We believe that the principal competitive factors affecting the markets for our products and solutions include:

the extent to which products and systems must support evolving industry standards and provide interoperability; the extent to which products are differentiated based on technical features, quality and reliability, ease of use, strength of distribution channels and price;

the ability to quickly develop new products and solutions to satisfy new market and customer requirements; and the total cost of ownership including installation, maintenance and expansion capability of systems. Increased competition and increased market volatility in our industry could result in lower prices, reduced margins or the failure of our product and service offerings to achieve or maintain market acceptance, any of which could have a serious adverse impact on our business, financial condition and results of operations.

Our percentage of revenue and customer concentration is significant in certain of our businesses.

Sales to our ten largest customers accounted for 34% of total net revenue in 2016 and 35% of total net revenue in 2015. No customer accounted for more than 10% of our total net revenue in 2016. One customer accounted for 14% of our total net revenue in 2015. No customers accounted for more than 10% of our accounts receivable balance as of December 31, 2016 and December 31, 2015, respectively. A significant amount of revenue is sourced from sales of products and systems to our OEM partners and an indirect sales network who sell to various entities within the U.S. federal government sector. We cannot guarantee that future reductions in U.S. Government budgets will not impact our sales to these government entities or that the terms of existing contracts will not be subject to renegotiation. Our loss of one or more of our significant customers could have a significant adverse impact on our business, financial condition and results of operations.

Our business will not be successful if we do not keep up with the rapid changes in our industry.

The market for security products and related services is characterized by rapid technological developments, frequent new product introductions and evolving industry standards. To be competitive, we have to continually improve the performance, features and reliability of our products and services, particularly in response to competitive offerings, and quickly demonstrate the value of new products and services or enhancements to existing products and services. Our failure to develop and introduce new products and services successfully on a timely basis and to achieve market acceptance for such products and services could have a significant adverse impact on our business, financial condition and results of operations.

Security breaches, whether or not related to our products, could result in the disclosure of sensitive government information or private personal information that could result in the loss of clients and negative publicity.

Many of the systems we sell manage private personal information or protect sensitive information related to our customers in the government or commercial markets. A well-publicized actual or perceived breach of network or computer security in one of these systems, regardless of whether such a breach is attributable to our products, could adversely affect the market's perception of us and our products, and could result in the loss of customers, have an adverse effect on our reputation and reduce demand for our products.

As part of our technical support services, we agree, from time to time, to possess all or a portion of the security system database of our customers. This service is subject to a number of risks. For example, despite our security measures our systems may be vulnerable to cyber-attacks by hackers, physical break-ins and service disruptions that could lead to interruptions, delays or loss of data. If any such compromise of our security were to occur, it could be very expensive to correct, could damage our reputation and could discourage potential customers from using our services. Although we have not experienced attempted cyber or physical attacks, we may experience such attempts in the future. Our systems also may be affected by outages, delays and other difficulties. Our insurance coverage may be insufficient to cover losses and liabilities that may result from such events.

Sales of our products could decline and we could be subject to legal claims for damages if our products are found to have defects.

Despite our testing efforts, our products may contain defects that are not detected until after the products have been shipped. The discovery of defects or potential defects may result in damage to our reputation, delays in market

acceptance of our products and additional expenditures to resolve issues related to the products' implementation. If we are unable to provide a solution to actual or potential product defects that is acceptable to our customers, we may be required to incur substantial costs for product recall, repair and replacement, or costs related to legal or warranty claims made against us.

The global nature of our business exposes us to operational and financial risks and our results of operations could be adversely affected if we are unable to manage them effectively.

We market and sell our products and solutions to customers in many countries around the world. To support our global sales, customer base and product development activities, we maintain company offices and/or business operations in several locations around the world, including Germany, Hong Kong, India, Japan, Singapore and the U.S. We also maintain manufacturing facilities in Singapore and California and engage contract manufacturers in multiple countries outside the U.S. Managing our global development,

sales, administrative and manufacturing operations places a significant burden on our management resources and our financial processes and exposes us to various risks, including:

- longer accounts receivable collection cycles;
- changes in foreign currency exchange rates;
- changes in foreign laws and regulatory requirements;
- changes in political or economic conditions and stability, particularly in emerging markets;
- difficulties managing widespread sales and manufacturing operations;
- export controls;
- less effective protection of our intellectual property; and
- potentially adverse tax consequences.

Any failure to effectively mitigate these risks and effectively manage our global operations could have a material adverse effect on our business, financial condition or operating results.

A significant portion of our revenue is through an indirect sales channel, and the loss of dealers, systems integrators, resellers, or other channel partners could result in decreased revenue.

We currently use an indirect sales channel that includes dealers, systems integrators, value added resellers and resellers to sell a significant portion of our products and solutions, primarily into markets or to customers where the channel partner may have closer relationships or greater access than we do. Some of these channel partners also sell our competitors' products, and if they favor our competitors' products for any reason, they may fail to market our products as effectively or to devote necessary resources that result in effective sales, which would cause our sales to suffer. Indirect selling arrangements are intended to benefit both us and the channel partner, and may be long- or short-term relationships, depending on market conditions, competition in the marketplace and other factors. If we are unable to maintain effective indirect sales channels, there could be a reduction in the amount of product we are able to sell, and our revenues could decrease.

We depend upon third-party manufacturers and a limited number of suppliers, and if we experience disruptions in our supply chain or manufacturing, our business may suffer.

We rely upon a limited number of suppliers for some key components of our products which exposes us to various risks, including whether or not our suppliers will provide adequate quantities with sufficient quality on a timely basis and the risk that supplier pricing may be higher than anticipated. In addition, some of the basic components used in some of our products, such as semiconductors, may at any time be in great demand. This could result in components not being available to us in a timely manner or at all, particularly if larger companies have ordered significant volumes of those components, or in higher prices being charged for components we require. Disruption or termination of the supply of components or software used in our products could delay shipments of our products, which could have a material adverse effect on our business and operating results and could also damage relationships with current and prospective customers.

Many of our products are manufactured outside the U.S. by contract manufacturers. Our reliance on these manufactures poses a number of risks, including lack of control over the manufacturing process and ultimately over the quality and timing of delivery of our products. If any of our contract manufacturers cannot meet our production requirements, we may be required to rely on other contract manufacturing sources or identify and qualify new contract manufacturers, and we may not be able to do this in a timely manner or on reasonable terms. Additionally, we may be subject to currency fluctuations, potentially adverse tax consequences, unexpected changes in regulatory requirements, tariffs and other trade barriers, export controls, or political and economic instability. Any significant delay in our ability to obtain adequate supplies of our products from our current or alternative manufacturers could materially and adversely affect our business and operating results. In addition, if we are not successful at managing the contract manufacturing process, the quality of our products could be jeopardized or inventory levels could be inadequate or excessive, which could result in damage to our reputation with our customers and in the marketplace, as well as

possible shortages of products or write-offs of excess inventory.

Our U.S. Government business depends upon the continuance of regulations that require federal agencies to implement security systems such as ours, and upon our ability to receive certain government approvals or certifications and demonstrate compliance in government audits or investigations. A failure to receive these government approvals or certifications or a negative audit result could result in a material adverse impact on our business, financial condition and results of operations.

While we are not able to quantify the amount of sales made to end customers in the U.S. Government market due to the indirect nature of our selling process, we believe that orders from U.S. Government agencies represent a significant portion of our revenues. The U.S. Government, suppliers to the U.S. Government and certain industries in the public sector currently fall, or may in the future fall, under particular regulations that require federal agencies to implement security systems that utilize physical and logical access control products and solutions such as ours. These regulations include, but are not limited to HSPD 12 and FIPS 201 produced by the National Institute of Standards and Technology ("NIST"). Discontinuance of, changes in, or lack of adoption of laws or regulations pertaining to security related to sales to end customers in the U.S. Government market could adversely affect our sales.

Our U.S. Government business is also dependent upon the receipt of certain governmental approvals or certifications and failure to receive such approvals or certifications could have a material adverse effect on our sales in those market segments for which such approvals or certifications are customary or required. Government agencies in the U.S. and other countries may audit our business as part of their routine audits and investigations of government procurement programs. Based on the outcome of any such audit, if any of our costs are found to be improperly allocated to a specific order, those costs may not be reimbursed and any costs already reimbursed for such order may have to be refunded. If a government agency audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions. A negative audit could materially affect our competitive position and result in a material adverse impact on our business, financial condition and results of operations.

Fluctuations in foreign exchange rates between the U.S. dollar and other major currencies in which we do business may adversely affect our business, financial condition and results of operations.

A significant portion of our business is conducted in foreign currencies, principally the euro. Fluctuations in the value of foreign currencies relative to the U.S. dollar will result in currency exchange gains and losses in our reported results. If a significant portion of operating expenses are incurred in a foreign currency such as the euro, and revenues are generated in U.S. dollars, exchange rate fluctuations might have a positive or negative net financial impact on these transactions, depending on whether the value of the U.S. dollar decreases or increases compared to the euro. In addition, the valuation of current assets and liabilities that are denominated in a currency other than the functional currency can result in currency exchange gains and losses. For example, when one of our subsidiaries uses the euro as the functional currency, and this subsidiary has a receivable in U.S. dollars, a devaluation of the U.S. dollar against the euro of 10% would result in a foreign exchange loss to the reporting entity of 10% of the value of the underlying U.S. dollar receivable. We cannot predict the effect of exchange rate fluctuations upon future operating results. The effect of currency exchange rate changes may increase or decrease our costs and/or revenues in any given period, and we may experience currency losses in the future. To date, we have not adopted a hedging program to protect against the risks associated with foreign currency fluctuations.

We may not be able to protect our intellectual property rights, which could make us less competitive and cause us to lose market share.

Our future success will depend, in part, upon our intellectual property rights and our ability to protect these rights. We rely on a combination of patent, copyright, trademark and trade secret laws, nondisclosure agreements and other contractual provisions to establish, maintain and protect our proprietary rights. From time to time we may be required to use litigation to protect our proprietary technology. This may result in our incurring substantial costs and we may not be successful in any such litigation. Despite our efforts to protect our proprietary rights, unauthorized third parties may copy aspects of our products, obtain and use information that we regard as proprietary, or infringe upon our

patents. In addition, the laws of some foreign countries do not protect proprietary and intellectual property rights to the same extent as do the laws in the U.S. Because many of our products are sold and a significant portion of our business is conducted outside the U.S., our exposure to intellectual property risks may be higher. Our efforts to protect our proprietary and intellectual property rights may not be adequate. Additionally, there is a risk that our competitors will independently develop similar technology or duplicate our products or design around patents or other intellectual property rights. If we are unsuccessful in protecting our intellectual property or our products or technologies are duplicated by others, our competitive position could be harmed and we could lose market share.

We face risks from future claims of third parties and litigation, which could have an adverse effect on our results of operations.

From time to time, we may be subject to claims of third parties, possibly resulting in litigation, which could include, among other things, claims regarding infringement of the intellectual property rights of third parties, product defects, employment-related claims, and claims related to acquisitions, dispositions or restructurings. Addressing any such claims or litigation may be time-consuming and costly, divert management resources, cause product shipment delays, require us to redesign our products, require us to

accept returns of products and to write-off inventory, or result in other adverse effects to our business. Any of the foregoing could have a material adverse effect on our results of operations and could require us to pay significant monetary damages.

We expect the likelihood of intellectual property infringement and misappropriation claims may increase as the number of products and competitors in the security market grows and as we increasingly incorporate third-party technology into our products. As a result of infringement claims, we could be required to license intellectual property from a third party or redesign our products. Licenses may not be offered when required or on acceptable terms. If we do obtain licenses from third parties, we may be required to pay license fees or royalties or we may be required to license some of our intellectual property to others in return for such licenses. If we are unable to obtain a license necessary for us or our third-party manufacturers to manufacture our allegedly infringing products, we could be required to suspend the manufacture of products or stop our suppliers from using processes that may infringe the rights of third parties. We may also be unsuccessful in redesigning our products. Our suppliers and customers may be subject to infringement claims based on intellectual property included in our products. We have historically agreed to indemnify our suppliers and customers for patent infringement claims relating to our products. The scope of this indemnity varies, but may, in some instances, include indemnification for damages and expenses, including attorney's fees. We may periodically engage in litigation as a result of these indemnification obligations. Our insurance policies exclude coverage for third-party claims for patent infringement.

A material impairment in the carrying value of intangible assets or other long-lived assets could negatively affect our consolidated financial condition and results of operations.

A portion of our assets consist of intangible assets and other long-lived assets. We review goodwill for potential impairment on an annual basis and intangible assets and other long-lived assets for potential impairment whenever events and changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If the asset is considered impaired, it is reduced to its fair value, resulting in a non-cash charge to earnings during the period in which any impairment is determined. In 2015, the carrying value of goodwill was determined to be fully impaired and we recorded an impairment charge of \$8.8 million to goodwill, as disclosed in our consolidated statements of operations.

Our stock price has been and is likely to remain volatile.

Over the past few years, The NASDAQ Capital Market has experienced significant price and volume fluctuations that have particularly affected the market prices of the stocks of technology companies. Volatility in our stock price may result from a number of factors, including, among others:

Now volumes of trading activity in our stock;

technical trading patterns of our stock;

• variations in our or our competitors' financial and/or operational results:

the fluctuation in market value of comparable companies in any of our markets;

expected or announced news about partner relationships, customer wins or losses, product announcements or organizational changes;

• comments and forecasts by security analysts;

the inclusion or removal of our stock from market indices, such as groups of technology stocks or other indices;

litigation developments; and

general market downturns.

In the past, companies that have experienced volatility in the market price of their stock have been the object of securities class action litigation.

We have been named as a defendant in putative securities class action lawsuits. These lawsuits and other litigation could cause us to incur substantial expenses and divert our attention and resources.

Securities class action lawsuits have often been brought against a company following periods of volatility in the market price of its securities. Companies such as ours in the technology industry are particularly vulnerable to this kind of litigation due to the volatility of their stock prices. We and a number of our current and former officers and directors are defendants in putative class lawsuits and derivative litigation, which is discussed in the Section entitled "Legal Proceedings." Any litigation to which we are a party may result in the diversion of management attention and resources from our business and business strategy. In addition, any litigation to which we are a party may result in onerous or unfavorable judgments that may not be reversed upon appeal and that may

require us to pay substantial monetary damages or fines, or we may decide to settle lawsuits on similarly unfavorable terms, which could have a material adverse effect our business, financial condition or results of operations.

You may experience dilution of your ownership interests due to the future issuance of additional shares of our stock, and future sales of shares of our common stock could adversely affect our stock price.

We have issued a significant number of shares of our common stock, together with warrants to purchase shares of our common stock, in connection with a number of financing transactions and acquisitions in recent years. In the future, from time to time we may issue additional previously authorized and unissued securities, resulting in the dilution of the ownership interests of our current stockholders.

In addition, we have reserved shares of common stock for potential future issuance including stock issued pursuant to various equity incentive plans, as contingent consideration related to previous acquisitions and various warrants issued in connection with previous capitals raises and other transactions. As of March 31, 2017, 3,047,194 shares of common stock are reserved for future grants and outstanding equity awards under our various equity incentive plans and an additional 907,100 shares of common stock are reserved for future issuance in connection with other commitments, including the potential issuance of shares pursuant to warrant exercises. We may issue additional shares of common stock or other securities that are convertible into or exercisable for shares of common stock in connection with the hiring of personnel, future acquisitions, future private placements, or future public offerings of our securities for capital raising or for other business purposes. If we issue additional securities, the aggregate percentage ownership of our existing stockholders will be reduced. In addition, any new securities that we issue may have rights senior to those of our common stock.

The issuance of additional shares of common stock or preferred stock or other securities, or the perception that such issuances could occur, may create downward pressure on the trading price of our common stock.

If current or future export laws limit or otherwise restrict our business, we could be prohibited from shipping our products to certain countries, which could cause our business, financial condition and results of operations to suffer.

Some of our products are subject to export controls or other laws restricting the sale of our products under the laws of the U.S., the European Union ("EU") and other governments. The export regimes and the governing policies applicable to our business are subject to change. We cannot be certain that such export authorizations will be available to us or for our products in the future. In some cases, we rely upon the compliance activities of our prime contractors, and we cannot be certain they have taken or will take all measures necessary to comply with applicable export laws. If we or our prime contractor partners cannot obtain required government approvals under applicable regulations, we may not be able to sell our products in certain international jurisdictions.

Changes in tax laws or the interpretation thereof, adverse tax audits and other tax matters may adversely affect our future results.

A number of factors may impact our tax position, including:

- the jurisdictions in which profits are determined to be earned and taxed;
- the resolution of issues arising from tax audits with various tax authorities;
- changes in the valuation of our deferred tax assets and liabilities;
- adjustments to estimated taxes upon finalization of various tax returns;
- increases in expenses not deductible for tax purposes; and
- the repatriation of non-U.S. earnings for which we have not previously provided for U.S. taxes.

Any of these factors could make it more difficult for us to project or achieve expected tax results. An increase or decrease in our tax liabilities due to these or other factors could adversely affect our financial results in future periods.

We have a material weakness in our internal controls over financial reporting, and if we fail to maintain adequate internal control over financial reporting, our business could be materially and adversely affected.

Under the Sarbanes-Oxley Act, our management must establish, maintain and make certain assessments and certifications regarding our disclosure controls and internal controls over financial reporting. We have dedicated significant resources to comply with these requirements, including significant actions to develop, evaluate, and test our internal controls. A failure to maintain adequate internal controls could result in inaccurate or late reporting of our financial results, an investigation by regulatory authorities,

a loss of investor confidence, a decrease in the trading price of our common stock and exposure to costly litigation or regulatory proceedings.

As described in Controls and Procedures in Part II, Item 9A of this Annual Report on Form 10-K, in connection with the audit of our financial statements as of and for the year ended December 31, 2015, we identified a material weakness in internal control over financial reporting during 2015. Management determined that the design and operating effectiveness of our controls over the financial statement close process related to the application of our accounting policies and the presentation of disclosures in the financial statements had been inadequate. Specifically, this material weakness arises from insufficient review and oversight of the recording of complex and non-routine transactions, including revenue transactions, due to an insufficient number of accounting personnel with appropriate knowledge, experience or training in U.S. GAAP. A similar material weakness was previously identified and disclosed in our Annual Report on Form 10-K for the years ended December 2012 and 2013, and a remediation plan was implemented. In 2016, remediation actions and organizational changes continued to be enacted to address specific control weaknesses identified, but the material weakness had not been fully remediated as of December 31, 2016. Although we intend to complete the implementation of remediation measures, and as a result remediate the existing material weakness described above, during 2017, we may in the future identify additional internal control deficiencies that could rise to the level of a material weakness or uncover errors in our financial reporting, and the existing material weakness or other material weaknesses in our internal controls could have a material adverse effect on the accuracy, timeliness and reliability of our financial reporting, which may have an adverse effect on our financial condition and results of operations as well as the price of our common stock.

Regulations relating to conflict minerals may adversely affect our business.

The SEC has adopted disclosure and reporting rules intended to improve transparency and accountability concerning the supply of certain minerals, known as conflict minerals, originating from the Democratic Republic of Congo ("DRC") and adjoining countries. These rules require us to determine the origin of certain materials used in our products and to disclose whether we use any materials containing conflict minerals originating from the DRC and adjoining countries. If it is determined that our products contain or use any conflict minerals from the DRC or adjoining countries, additional requirements will be triggered. Compliance with conflict mineral disclosure requirements may result in increased costs of regulatory compliance, potential risks to our reputation, difficulty satisfying any customers that insist on conflict-free products and harm to our business.

Provisions in our charter documents and Delaware law may delay or prevent our acquisition by another company, which could decrease the value of your shares.

Our certificate of incorporation and bylaws and Delaware law contain provisions that could make it more difficult for a third party to acquire us or enter into a material transaction with us without the consent of our Board. These provisions include a classified Board and limitations on actions by our stockholders by written consent. Delaware law imposes some restrictions on mergers and other business combinations between us and any holder of 15% or more of our outstanding common stock. In addition, our Board has the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer. These provisions will apply even if the offer were to be considered adequate by some of our stockholders. Because these provisions may be deemed to discourage a change of control, they may delay or prevent the acquisition of our Company, which could decrease the value of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS None.

## ITEM 2.PROPERTIES

Our corporate headquarters are located in Fremont, California and we maintain operational headquarters in Santa Ana, California. We lease additional facilities around the world to house our engineering, sales and marketing, administrative and manufacturing functions. At December 31, 2016, our major facilities consisted of the following:

|                       |   | Square | Lease        |
|-----------------------|---|--------|--------------|
| Location              | Function  | Feet   | Expiration   |
| Fremont, California   | Corporate headquarters                                  | 10,935 | April 2021   |
| Santa Ana, California | Administration; manufacturing; research and development | 34,599 | January 2018 |
| Chennai, India        | Research and development                                | 17,500 | October 2017 |
| Singapore             | RFID/NFC product manufacturing                          | 16,060 | May 2021     |
|                       |   |        |              |
| Sauerlach, Germany    | European research and development                       | 5,200  | April 2018   |

#### ITEM 3.LEGAL PROCEEDINGS

On December 16, 2015, we and certain of our present and former officers and directors were named as defendants in a putative class action lawsuit filed in the United States District Court for the Northern District of California, entitled Rok v. Identiv, Inc., et al., Case No. 15-cv-05775, alleging violations of Section 10(b) of the Exchange Act of 1934 and Rule 10b-5 promulgated thereunder and Section 20(a) of the Exchange Act of 1934. On May 3, 2016, the court-appointed lead plaintiff Thomas Cunningham in the Rok lawsuit filed an amended complaint and a notice of dismissal without prejudice of all current or former officers and directors other than Jason Hart and Brian Nelson. On June 6, 2016, each of us, Jason Hart, and Brian Nelson filed a motion to dismiss for failure to state a claim upon which relief can be granted in the Rok lawsuit; on August 5, 2016, the court granted those motions with leave for the lead plaintiff to file a second amended complaint. On September 12, 2016, the lead plaintiff in the Rok lawsuit filed a second amended complaint. On October 10, 2016, each of us, Jason Hart, and Brian Nelson filed a motion to dismiss that second amended complaint for failure to state a claim upon which relief can be granted in the Rok lawsuit; on January 4, 2017, the court granted those motions with prejudice and entered judgment for us and the other defendants and against the lead plaintiff. On February 6, 2017, the lead plaintiff initiated an appeal of the court's decision in the Ninth Circuit Court of Appeals. Following the lead plaintiff's routine request to extend filing deadlines, which the Court of Appeals approved, the lead plaintiff's opening appellate brief is currently scheduled to be filed by June 14, 2017, the answering briefs of the Company and the other defendants are currently scheduled to be filed by July 14, 2017, and the lead plaintiff's optional reply brief is currently scheduled to be filed by fourteen days from the date of service of the answering briefs. In addition, three shareholder derivative actions were filed between January and February 2016. On January 1, 2016, certain of our present and former officers and directors were named as defendants, and we were named as nominal defendant, in a shareholder derivative lawsuit filed in the United States District Court for the Northern District of California, entitled Oswald v. Humphreys, et al., Case No. 16-cv-00241-JCS, alleging breach of fiduciary duty and abuse of control claims. On January 25, 2016, certain of our present and former officers and directors were named as defendants, and we were named as nominal defendant, in a shareholder derivative lawsuit filed in the Superior Court of the State of California, County of Alameda, entitled Chopra v. Hart, et al., Case No. RG16801379, alleging breach of fiduciary duty claims. On February 9, 2016, certain of our present and former officers and directors were named as defendants, and we were named as nominal defendant, in a shareholder derivative lawsuit filed in the Superior Court of the State of California, County of Alameda, entitled Wollnik v. Wenzel, et al., Case No. HG16803342, alleging breach of fiduciary duty, corporate waste, gross mismanagement, and unjust enrichment claims. These lawsuits generally allege that we made false and/or misleading statements and/or failed to disclose information in certain public filings and disclosures between 2013 and 2015. Each of the lawsuits seeks one or more of the following remedies: unspecified compensatory damages, unspecified exemplary or punitive damages, restitution, declaratory relief, equitable and injunctive relief, and reasonable costs and attorneys' fees. On May 2, 2016, the court in the Chopra lawsuit entered an order staying proceedings in the Chopra lawsuit in favor of the Oswald lawsuit, based on a stipulation to that effect filed by the parties in the Chopra lawsuit on April 28, 2016. Similarly, on June 28, 2016, the court in the Wollnik lawsuit entered a stipulated order staying proceedings in the Wollnik lawsuit in favor of the Oswald lawsuit. On June 17, 2016, the plaintiff in the Oswald lawsuit filed an amended complaint. On August 1, 2016, we filed a motion to dismiss for failure by plaintiff to make a pre-lawsuit demand on our board of directors, which motion was heard on October 14, 2016. The judge in the Oswald lawsuit issued an order on November 7, 2016 granting our motion to dismiss, without prejudice. In addition, the court stayed the case so that plaintiff could exercise whatever rights he has under Section 220 of the Delaware General Corporation Law. On or around November 30, 2016, the plaintiff purported to serve a books and records demand under Section 220 of the Delaware General Corporation Law. We have responded to that demand. On March 21, 2017, we and the plaintiff in the Oswald lawsuit filed a stipulation and proposed order lifting the stay of the case, granting the plaintiff leave to amend, and setting a briefing schedule. That stipulation proposed that the judge's stay of the case entered November 7, 2016 be lifted, that a stay of proceedings as to the individual defendants that the judge previously entered remain in place, that the plaintiff may file a second amended complaint on or before April 10, 2017, that we may file a motion to dismiss that second amended complaint on or before May 12, 2017, that the plaintiff's opposition to such a motion to dismiss shall be filed on or before June 12, 2017, that our reply in support of such a motion shall be filed on or before June 30, 2017, and that the hearing on such a motion to dismiss shall be held on August 11, 2017 or such other date as the court may order. On March 22, 2017, the court entered an order

approving that stipulation. We intend to vigorously defend against these lawsuits. We cannot currently predict the impact or resolution of each of these lawsuits or reasonably estimate a range of possible loss, if any, which could be material, and the resolution of these lawsuits may harm our business and have a material adverse impact on our financial condition.

From time to time, we could become subject to claims arising in the ordinary course of business or could be named a defendant in additional lawsuits. The outcome of such claims or other proceedings cannot be predicted with certainty and may have a material effect on our financial condition, results of operations or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES Not Applicable

## Executive Officers of the Registrant

Information concerning our executive officers as of March 1, 2017 is as follows:

Steven Humphreys, 55, has served as our Chief Executive Officer since September 9, 2015 and as a director of the Company since July 1996. Mr. Humphreys previously served as Chairman of the Board from September 2013 until September 9, 2015. Mr. Humphreys also previously served on the Strategic Committee of the Board of Directors. Previously, he also served as Lead Director from May 2010 until April 2013 and as Chairman of the Board of Directors from April 2000 to March 2007 and from July 1996 to December 1996. Mr. Humphreys also served as an executive officer of the Company, as President from July 1996 to December 1996 and as President and Chief Executive Officer from December 1996 to April 2000. From November 2011 to December 2014, Mr. Humphreys served as chief executive officer of Flywheel Software, Inc., a privately-held location-based mobile solutions company. From October 2008 until its acquisition by SMSC in February 2010, Mr. Humphreys served as Chief Executive Officer and President of Kleer Corporation, a maker of wireless audio technology. From October 2001 to October 2003, he served as Chairman of the Board and Chief Executive Officer of ActivCard Corporation (now ActivIdentity), a publicly-listed company until December 2010 and a provider of digital identity solutions, for which he also served as a director from March 2008 until December 2010. Previously, Mr. Humphreys was President of Caere Corporation, an optical character recognition software and systems company. Prior to Caere, he spent ten years with General Electric Company in a variety of positions. Currently, Mr. Humphreys also serves as a director of Giraff Technologies AB, a communications robotics device company. Additionally he serves on the board of Summit Public Schools, a charter school system with schools across California and Washington state. Mr. Humphreys holds a B.S. degree from Yale University and M.S. and M.B.A. degrees from Stanford University.

Sandra Wallach, 52, has served as our Chief Financial Officer since February 16, 2017. Ms. Wallach previously served as VP Finance for MiaSole, a thin film solar technology company, from May 2011 to January 2013. For a six month period from January 2013 to June 2013, she served as Chief Financial Officer of UBM Tech, a wholly-owned subsidiary of UBM LLC. In June 2013, she returned to MiaSole and served as their VP Finance until February 2017. Prior to that, she served as VP Finance at Juniper Networks (from 2008-2011) as well as holding different Financial management positions with Intuit (2003-2007). Before joining Intuit, Ms. Wallach served as Chief Financial Officer of General Electric's (GE) Industrial Systems, Drives & Controls division. Previously she held a range of financial and management positions at General Electric since joining GE in 1986. Ms. Wallach holds a B.A. in Economics and Public Policy from the University of California at Berkeley.

## **PART II**

# ITEM 5.MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Price Range of Common Stock; Number of Holders; Dividends

Our common stock is traded on The NASDAQ Capital Market under the symbol "INVE." According to data available at March 6, 2017, we had 111 registered holders of our common stock. Not represented in this figure are individual stockholders in Germany whose custodian banks do not release stockholder information to us. The following table sets forth the high and low closing prices of our common stock for the periods indicated:

|                | High   | Low    |
|----------------|--------|--------|
| Fiscal 2016:   |        |        |
| First Quarter  | \$2.36 | \$1.56 |
| Second Quarter | \$2.95 | \$1.75 |
| Third Quarter  | \$2.60 | \$1.78 |

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| Fourth Quarter | \$4.23  | \$1.97 |
|----------------|---------|--------|
| Fiscal 2015:   |         |        |
| First Quarter  | \$14.84 | \$8.51 |
| Second Quarter | \$12.40 | \$5.82 |
| Third Quarter  | \$5.83  | \$2.64 |
| Fourth Quarter | \$3.95  | \$1.64 |

We have never declared or paid cash dividends on our common stock. We currently anticipate that we will retain all of our future earnings for use in the expansion and operation of our business and do not anticipate paying any cash dividends in the foreseeable future.

The disclosure required by Item 201(d) of Regulation S-K is included in Item 12 of this Annual Report on Form 10-K.

ITEM 6. SELECTED FINANCIAL DATA Not applicable.

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

This Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and other parts of this Annual Report on Form 10-K ("Annual Report") contain forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, that involve risks and uncertainties. Forward-looking statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to any historical or current fact. Forward-looking statements can also be identified by words such as "will," "believe," "could," "should," "would," "may," "anticipate," "intend," "plan," "estimate," "expect," "project" or the neg terms or other similar expressions. Forward-looking statements are not guarantees of future performance and our actual results may differ significantly from the results discussed in the forward-looking statements. Factors that might cause such differences include, but are not limited to, those discussed in Part I, Item 1A of this Annual Report under the heading "Risk Factors," which are incorporated herein by reference. The following discussion should be read in conjunction with the consolidated financial statements and notes thereto included in Part II, Item 8 of this Annual Report. We assume no obligation to revise or update any forward-looking statements for any reason, except as required by law.

Each of the terms the "Company," "Identiv," "we" and "us" as used herein refers collectively to Identiv, Inc. and its wholly-owned subsidiaries, unless otherwise stated.

#### Overview

Identiv is a global security technology company that secures and manages access to physical places, things and information. Global organizations in government, education, retail, transportation, healthcare and other markets rely upon our solutions. We empower them to create secure and convenient experiences in schools, government offices, factories, critical infrastructure, transportation, hospitals and virtually every type of facility and for a wide range of products.

Our operating segments focus on the following solutions:

- Physical access solutions, securing buildings via an integrated access control system, included in our Premises ("PACS") segment.
- Information security solutions, securing enterprise information access across PCs, networks, email, login, and printers via delivery of smart card reader products, included in our Identity segment.
- Radio frequency identification ("RFID") based solutions for use in a wide range of applications from asset tracking to product authenticity, product ease-of-use (e.g. pairing), transportation access and other applications sometimes included in the Internet of Things. The RFID devices are embedded into access cards, transponders and other credentials that enable frictionless access to and interaction with the physical world.

The foundation of our business is our expertise in RFID, smart card technology, and access control, our close customer relationships that allow us to develop customer-relevant products, and our core value of quality.

To deliver our solutions, we have organized our operations into four reportable business segments, principally by product families: PACS, Identity, Credentials, and All Other.

#### **PACS**

The foundation of our physical access platform is the Hirsch line of controllers including the advanced MX line, Hirsch's Velocity management software and a wide range of integrations that provide Velocity/MX's unique flexibility

across a wide range of industries and implementations. We have further extended our physical access platform with our Identiv Connected Physical Access Manager ("ICPAM") software, derived from Cisco's Physical Access Manager ("ICPAM") system and available in partnership with Cisco. Both of these platforms are available with our MX multi-door controllers as well as our edge controllers, which are targeted as one to two door installations and leverage existing Ethernet infrastructure ("Power-over-Ethernet"). Additionally, we sell either individual components or complete bundled solutions which can include any or all among software, edge controllers, multi-door panels, access readers, access cards and other components.

Our modular Hirsch MX controllers are designed to be scalable, allowing customers to start with a small system and expand over time. Hirsch MX controllers can operate autonomously, whether as a single controller or as part of a networked system with Velocity software. The Hirsch Velocity software platform enables centralized management of access and security operations across an organization, including control of doors, gates, turnstiles, elevators and other building equipment, monitoring users as they move around a facility, preventing unwanted access, maintaining compliance and providing a robust audit trail.

To our price/performance/quality-leading commercial offerings, we have added what we believe to be the highest performance, lowest per-door cost access control system for the U.S. federal government security mandate known as the Federal Identity, Credential and Access Management ("FICAM") architecture. This brings all of the advantages above into the next generation of physical security for the U.S. government departments and agencies to achieve FIPS 201 compliance.

Our TouchSecure ("TS") door readers provide unique features to support a wide range of security standards. We support the majority of legacy card credentials with a robust next-generation platform that can help companies migrate to more secure credentials and technologies, including smart cards, near field communication ("NFC") and government-issued credentials including CAC, PIV, PIV-I and others. Additionally, our Scramblepad readers employ numerical scrambling on the keypad to protect access codes from being stolen as they are entered, and providing both secure two-factor authentication and convenient alternative-factor access.

In addition to our core products, we have a range of product initiatives to leverage leading technology advances across mobile, biometric, machine-learning and other areas, to provide convenient, frictionless, low-cost yet highly secure physical access. We invest independently and in partnership with other leading technology companies in these emerging aspects of access enabling platforms.

## Identity

Our Identity products include smart card readers, which includes a broad range of contact, contactless, portable and mobile smart card readers, tokens and terminals that are utilized around the world to enable logical access (i.e., PC, network or data access) and security and identification applications, such as national ID, payment, e-Health and e-Government.

With over 20 years of smart card reader, application and token experience, we are known for our expertise in this complex ecosystem. We combine our deep technical expertise with an optimized supply chain, to provide the most optimal, cost-effective and high-quality smart card-based products. Whether Identiv branded products, original equipment manufacturers ("OEM") branded, or embedded chips or modules, our position is as the trusted business solution provider for all users and issuers of smart cards and embedded-chip applications.

#### Credentials

Our Credentials segment include NFC and RFID products, including inlays and inlay—based and other cards, labels, tags and stickers, as well as other radio frequency ("RF") and integrated circuits ("IC") components and our generally grouped into access cards and transponders. Our TS Cards product line, we believe, is the first complete solution to allow customers to pay only for the most basic low-frequency proximity access technology while having the ability to evolve to the higher-security high-frequency and highest-security PKI-based access credentials. This product line exemplifies our values: we place no burden on our customers, instead providing the most cost-effective solution to their basic needs; and then delivering within this platform the ability for them to move to higher-level needs and capabilities, when they want, when they are ready and when they will realize economic and experience benefits.

Our transponder products span the full range of high frequency ("HF") and ultra-high frequency ("UHF") technologies. Our differentiation is analogous to application-specific integrated circuits ("ASICS") in the semiconductor market. We leverage our flexible platform, our deep technical expertise and our infrastructure and supply chain to deliver solutions optimized for our customers' business goals. We believe we are more responsive, more flexible, more experienced in business-optimized solutions and have a better track record of sustained delivery of solution-specific, high-quality RFID devices than our competitors. These products are manufactured in our state-of-the-art facility in Singapore and are used in a diverse range of physical applications, including electronic

entertainment such as virtual reality ("VR"), games, loyalty cards, mobile payment systems, transit and event ticketing, brand authenticity from pharmaceuticals to consumer goods, hospital resource management, cold-chain management and many others.

Leveraging our expertise in RFID, physical access and physical authentication, we are developing new solutions to extend our platforms across a wide variety of physical use cases. The next major opportunity in our connected world is the Internet of things, which fundamentally is about physical things. We believe our core strength in physical access and physical instrumentation (RFID) markets, our well-established platforms and our deep knowledge of the relevant technologies, position us well in this growth market.

## All Other

The All Other segment includes legacy product lines, such as Chipdrive and Digital Media readers. The products included in the All Other segment do not meet the quantitative thresholds for determining reportable segments and therefore have been combined for reporting purposes. They are not expected to generate revenues going beyond 2016.

We primarily conduct sales and marketing activities in each of the markets in which we compete, utilizing our own sales and marketing organization to solicit prospective channel partners and customers, provide technical advice and support with respect to products, systems and services, and manage relationships with customers, distributors and/or OEMs. We utilize indirect sales channels that may include OEMs, dealers, systems integrators, value added resellers, resellers or Internet sales, although we also sell directly to end users. In support of our sales efforts, we participate in industry events and conduct sales training courses, targeted marketing programs, and ongoing customer, channel partner and third-party communications programs.

Our corporate headquarters are located in Fremont, California. We maintain research and development facilities in California, Chennai, India, Munich, Germany, and local operations and sales facilities in Germany, the United Kingdom, Hong Kong, Singapore, India and the United States. We were founded in 1990 in Munich, Germany and incorporated in 1996 under the laws of the State of Delaware.

For a discussion of our net revenue by segment and geographic location, see Note 9, Segment Reporting and Geographic Information in the accompanying notes to our consolidated financial statements.

#### Trends in our Business

Geographic net revenue, based on each customer's ship-to location, for the years ended December 31, 2016 and 2015 is as follows:

|                            | Year Ended             |   |         |    |
|----------------------------|------------------------|---|---------|----|
|                            | December 31, 2016 2015 |   |         |    |
|                            | (In thousands)         |   |         |    |
| Americas                   | \$38,135               | 5 | \$40,84 | 18 |
| Europe and the Middle East | 8,589                  |   | 9,472   | 2  |
| Asia-Pacific               | 9,444                  |   | 10,47   | 4  |
| Total                      | \$56,168               | 3 | \$60,79 | 94 |
|                            |                        |   |         |    |
| Americas                   | 68                     | % | 67      | %  |
| Europe and the Middle East | 15                     | % | 16      | %  |
| Asia-Pacific               | 17                     | % | 17      | %  |
| Total                      | 100                    | % | 100     | %  |

#### Net Revenue Trends

Net revenue in 2016 was \$56.2 million, down 8% compared with \$60.8 million in 2015. Approximately 44% of our net revenue came from our PACS segment. Net revenue in our PACS segment in 2016 was \$24.7 million compared with \$20.0 million in 2015. Net revenue in our Credentials segment represented approximately 32% of our net revenue. Net revenue in our Credentials segment in 2016 was \$18.0 million compared with \$27.3 million in 2015. Net revenue in the Identity segment, which represents approximately 23% of total net revenue, was \$12.9 million in 2016 compared with \$12.0 million in 2015.

#### Net revenue in the Americas

Net revenue in the Americas was \$38.1 million in 2016, accounting for 68% of total net revenue and down 7% compared with \$40.8 million in 2015. Net revenue from our PACS solution for security programs within various U.S.

government agencies, as well as RFID and NFC products, inlays and tags comprise a significant proportion of our net revenue in the Americas region.

Net revenue in our PACS segment in the Americas increased by approximately 25% in 2016 compared with the previous year, while net revenue in our Credentials segment decreased 44% in 2016 compared to 2015. PACS net revenue increases were primarily due to an increase in orders for physical access control solutions from federal government customers, and higher sales through our channel partners. Credentials segment net revenue decreases were primarily due to transponder sales to certain large customers for electronic gaming applications in 2015 that did not recur in 2016. Net revenue from our Identity segment increased in 2016 compared with 2015 due primarily to higher reader sales.

As a general trend, U.S. Federal agencies continue to be subject to security improvement mandates under programs such as Homeland Security Presidential Directive-12 and reiterated in memoranda from the Office of Management and Budget (OMB M-11-11). We believe that our physical access control solutions are an attractive offering in the market to help agencies move towards compliance with federal directives and mandates. To expand our sales opportunities in the United States in general and with orders

sourced from U.S. Government agencies in particular, we have strengthened our U.S. sales organization and our sales presence in Washington D.C.

Net revenue in Europe, the Middle East, and Asia-Pacific

Net revenue in Europe, the Middle East, and Asia-Pacific was approximately \$18.0 million in 2016, accounting for 32% of total net revenue, a decrease of approximately 10% compared with 2015 primarily as a result of lower sales in the Asia-Pacific and Europe and the Middle East regions. Net revenue in these regions are very dependent on the completion of large projects and the timing of orders placed by some of our larger customers. Sales of Identity readers and RFID and NFC products and tags comprise a significant proportion of our net revenue in these regions.

Net revenue from our PACS products increased in 2016 compared with 2015 due to higher sales of physical access control solutions primarily in the Asia-Pacific region. Net revenue from our Identity products decreased by approximately 6% in 2016 compared with 2015 primarily due to lower sales of smart card readers in these regions. Identity readers comprised approximately 40% of the net revenue throughout these regions in 2016. Net revenue from our Credentials products, which comprised approximately 41% of sales in this region, declined by approximately 11% in 2016 compared with 2015 primarily as a result of lower transponder and access card product sales in the Asia-Pacific.

## Seasonality and Other Factors

In our business overall, we may experience significant variations in demand for our offerings from quarter to quarter, and typically experience a stronger demand cycle in the second half of our fiscal year. Sales of our premises solutions to U.S. Government agencies are subject to annual government budget cycles and generally are highest in the third quarter of each year. However, the usual seasonal trend can be negatively impacted by actions such as government shutdowns and the passing of continuing resolutions which can act to delay the completion of certain projects. Sales of our identity reader chips, many of which are sold to government agencies worldwide, are impacted by testing and compliance schedules of government bodies as well as roll-out schedules for application deployments, both of which contribute to variability in demand from quarter to quarter. Further, this business is typically subject to seasonality based on differing commercial and global government budget cycles. Lower sales are expected in the U.S. in the first half, and in particular the first quarter of the year, with higher sales typically in the second half of each year. In Asia and Australia, with fiscal year-ends in March and June, order demand can be high in the first half as customers attempt to complete projects before the end of the fiscal year. Accordingly, our net revenue levels in the first quarter and first half each year often depends on the relative strength of project completions and sales mix between our U.S. customer base and our International customer base.

In addition to the general seasonality of demand, overall U.S. Government expenditure patterns have a significant impact on demand for our products due to the significant portion of revenues that are typically sourced from U.S. Government agencies. Therefore, any significant reduction in U.S. Government spending could adversely impact our financial results and could cause our operating results to fall below any guidance we provide to the market or below the expectations of investors or security analysts.

## Operating Expense Trends

#### **Base Operating Expenses**

Our base operating expenses (i.e., research and development, selling and marketing, and general and administrative spending) decreased 35% in 2016 compared with 2015. Research and development spending decreased by 29% in 2016 compared with 2015 as the benefit of restructuring initiatives realized during 2016. Selling and marketing spending in 2016 was down by 31% compared with 2015, due to cost saving initiatives taken in the sales and marketing organization reducing both headcount and marketing program spending. General and administrative

spending in 2016 decreased 42% compared with 2015 primarily due to lower legal and professional fees and the benefit of restructuring initiatives realized during 2016.

## **Results of Operations**

The following table includes segment net revenue and segment net profit information by business segment and reconciles gross profit to results of continuing operations before income taxes and noncontrolling interest.

The following table sets forth our statements of operations as a percentage of net revenue for the periods indicated:

|   | Year Ended<br>December 31, |     |          |    |
|---|----------------------------|-----|----------|----|
|   | 2016 2015                  |     |          |    |
|   | (In thous                  | and | ls)      |    |
| Premises:   |                            |     |          |    |
| Net revenue   | \$24,696                   |     | \$19,963 | 3  |
| Gross profit  | 14,034                     |     | 11,522   | 2  |
| Gross profit margin   | 57                         | %   | 58       | %  |
| Identity:   |                            |     |          |    |
| Net revenue   | 12,902                     |     | 11,950   | )  |
| Gross profit  | 5,015                      |     | 5,040    |    |
| Gross profit margin   | 39                         | %   | 42       | %  |
| Credentials:  |                            |     |          |    |
| Net revenue   | 17,992                     |     | 27,336   | 5  |
| Gross profit  | 4,427                      |     | 5,613    |    |
| Gross profit margin   | 25                         | %   | 21       | %  |
| All Other:  |                            |     |          |    |
| Net revenue   | 578                        |     | 1,545    |    |
| Gross profit  | 253                        |     | 974      |    |
| Gross profit margin   | 44                         | %   | 63       | %  |
| Total:  |                            |     |          |    |
| Net revenue   | 56,168                     |     | 60,794   | Į. |
| Gross profit  | 23,729                     |     | 23,149   | )  |
| Gross profit margin   | 42                         | %   | 38       | %  |
| Operating expenses:   |                            |     |          |    |
| Research and development  | 6,520                      |     | 9,151    |    |
| Selling and marketing   | 14,032                     |     | 20,236   | 5  |
| General and administrative  | 11,309                     |     | 19,604   | ļ  |
| Impairment of goodwill  | _                          |     | 8,771    |    |
| Restructuring and severance   | 3,088                      |     | 1,266    |    |
| Total operating expenses  | 34,949                     |     | 59,028   | 3  |
| Loss from operations  | (11,220                    | )   | (35,87   | 9) |
| Non-operating income (expense):   |                            |     |          |    |
| Interest expense, net   | (2,378                     | )   | (1,908   | )  |
| Foreign currency gains (losses), net  | 27                         |     | (1,211   | )  |
| Loss from continuing operations before income taxes and noncontrolling interest | \$(13,571                  | )   | \$(38,99 | 8) |

|   | Year Ended |         |
|---|------------|---------|
|   | December   | 31,     |
|   | 2016       | 2015    |
| Net revenue   | 100.0%     | 100.0%  |
| Cost of revenue   | 57.8       | 61.9    |
| Gross profit  | 42.2       | 38.1    |
| Operating expenses:   |            |         |
| Research and development                                    | 11.6       | 15.1    |
| Selling and marketing                                       | 25.0       | 33.3    |
| General and administrative                                  | 20.1       | 32.2    |
| Impairment of goodwill                                      | _          | 14.4    |
| Restructuring and severance                                 | 5.5        | 2.1     |
| Total operating expenses                                    | 62.2       | 97.1    |
| Loss from operations  | (20.0)     | (59.0)  |
| Non-operating income (expense)                              |            |         |
| Interest expense, net                                       | (4.2)      | (3.1)   |
| Foreign currency losses, net                                | _          | (2.0)   |
| Loss before income taxes and noncontrolling interest        | (24.2)     | (64.1)  |
| Income tax provision  | (0.2)      | (0.4)   |
| Loss before noncontrolling interest                         | (24.4)     | (64.5)  |
| Less: Net loss attributable to noncontrolling interest      | _          | 0.1     |
| Net loss attributable to Identiv, Inc. stockholders' equity | (24.4)%    | (64.4)% |

Fiscal 2016 Compared with Fiscal 2015

#### Net Revenue

Net revenue in 2016 was \$56.2 million, down 8% compared with \$60.8 million in 2015. Net revenue was lower in 2016 primarily driven by lower sales in our Credentials and All Other segments, partially offset by higher sales in our PACS and Identity segments. A more detailed discussion of revenues by segment follows below.

Net revenue in our PACS segment was \$24.7 million in 2016, an increase of 24% from \$20.0 million in 2015. The increase was due primarily to higher sales of physical access control solutions, including an increase in professional services engagements, attributable to greater demand from federal government customers and higher sales through our channel partners compared to the comparable period of the prior year.

Net revenue in our Identity segment of \$12.9 million in 2016 increased 8% from \$12.0 million in 2015. This increase in Identity segment net revenue was primarily due to higher sales of smart card readers, modules, and reader chipsets in the U.S. and to federal government customers, partially offset by lower smart card reader sales in the Europe and the Middle East and the Asia-Pacific regions.

Net revenue in our Credentials segment was \$18.0 million in 2016, a decrease of 34% from \$27.3 million in 2015. The decrease was primarily due to transponder sales to certain large customers for electronic gaming applications in 2015 that were not repeated in 2016, partially offset by an increase in access card sales in the U.S.

Net revenue in our All Other segment was approximately \$0.5 million in 2016, compared with \$1.5 million in 2015. These changes are primarily due to the phasing out of our digital media product lines and the discontinuation of our Chipdrive product line.

#### **Gross Profit**

Gross profit for 2016 was \$23.7 million, or 42% of net revenue, compared to \$23.1 million or 38% of net revenue in 2015. Gross profit represents revenues less direct cost of product sales, manufacturing overhead, other costs directly related to preparing the product for sale including freight, scrap, inventory adjustments and amortization, where applicable. The increase in gross profit margins in 2016 related primarily to a change in product mix, with a higher proportion of net revenue generated in 2016 from our higher margin PACS segment compared to net revenue in our Credentials segment.

In our PACS segment, gross profit on sales of physical access control solutions, including panels, controllers, and access readers was \$14.0 million in 2016 and \$11.5 million in 2015. Gross profit was higher as a direct result of higher sales in the PACS segment in

2016. Gross profit margins in the PACS segment of 57% in 2016 were comparable with gross profit margins in 2015 of 58%, primarily attributable to the impact of the comparable product mix within the segment.

In our Identity segment, gross profit on sales of information readers and modules as well as credential provisioning and management services was \$5.0 million in 2016 compared to \$5.0 million in 2015. Gross profit in 2016 was comparable with 2015 as a direct result of higher sales in the Identity segment offset by the impact of unfavorable product mix. Gross profit margins in the Identity segment were lower in 2016 at 39% compared with 42% in 2015 due to product mix and lower margins on smart card readers following the go-to market change to a distribution sales model in certain international markets.

In our Credentials segment, gross profit on sales of physical access credentials and RFID and NFC inlays and tags used in electronic entertainment applications was \$4.4 million in 2016 compared with \$5.6 million in 2015. Gross profit margins in the Credentials segment were higher in 2016 at 25% compared with 21% in 2015 primarily due to product mix.

We expect there will be some variation in our gross profit from period to period, as our gross profit has been and will continue to be affected by a variety of factors, including, without limitation, competition, product pricing, the volume of sales in any given quarter, manufacturing volumes, product configuration and mix, the availability of new products, product enhancements, software and services, risk of inventory write-downs and the cost and availability of components.

#### **Operating Expenses**

Information about our operating expenses for the fiscal years ended December 31, 2016 and 2015 is set forth below.

## Research and Development

|                                   | Fiscal 2016 | Fiscal 2015 | \$<br>Change | %<br>Change |        |
|-----------------------------------|-------------|-------------|--------------|-------------|--------|
|                                   | (\$ in thou | isands)     |              |             |        |
| Research and development expenses | \$6,520     | \$9,151     | \$(2,631)    | (28.8)%     | ,<br>0 |
| Percentage of revenue             | 12 %        | 15 %        | 1            |             |        |

Research and development expenses consist primarily of employee compensation and fees for the development of hardware, software and firmware products. We focus the bulk of our research and development activities on the continued development of existing products and the development of new offerings for emerging market opportunities.

Research and development expenses in 2016 decreased primarily due to the benefit of restructuring initiatives realized during 2016.

## Selling and Marketing

|                                | Fiscal      | Fiscal   | \$        | %      |    |
|--------------------------------|-------------|----------|-----------|--------|----|
|                                | 2016        | 2015     | Change    | Change |    |
|                                | (\$ in thou | sands)   |           |        |    |
| Selling and marketing expenses | \$14,032    | \$20,236 | \$(6,204) | (30.7  | )% |

Percentage of revenue 25 % 33 %

Selling and marketing expenses consist primarily of employee compensation as well as amortization expense of certain intangible assets, tradeshow participation, advertising and other marketing and selling costs.

Selling and marketing expenses decreased primarily due to a reduction in headcount and marketing program spending attributable to our restructuring initiatives realized during 2016.

General and Administrative

|                                     | Fiscal       | Fiscal   | \$        | %      |    |
|-------------------------------------|--------------|----------|-----------|--------|----|
|                                     | 2016         | 2015     | Change    | Change |    |
|                                     | (\$ in thous | ands)    |           |        |    |
| General and administrative expenses | \$11,309     | \$19,604 | \$(8,295) | (42.3  | )% |
| Percentage of revenue               | 20 %         | 32 %     |           |        |    |

General and administrative expenses consist primarily of compensation expenses for employees performing administrative functions, and professional fees incurred for legal, auditing and other consulting services.

General and administrative expenses decreased primarily due to lower legal and professional fees and the benefit of restructuring initiatives realized during 2016.

**Impairment Charges** 

Fistal \$ %
20126015 Change Change
(\$ in thousands)

Impairment of goodwill \$-\$8,771 \$(8,771) (100.0)%

As detailed in Note 5, Goodwill and Intangible Assets in the accompanying notes to our consolidated financial statements, under our accounting policy, we are required to perform an annual impairment review of our goodwill and an interim analysis of our long-lived assets, when there are changes in our business that may indicate impairment of those assets.

During the second quarter of 2015, we noted certain indicators of impairment, including a sustained decline in the price of our common stock and continued reduced performance in our Identity reporting unit. Based on the results of the first step of the goodwill impairment analysis, we determined that the net adjusted carrying value exceeded the estimated fair value of the Identity reporting unit. As a result, we concluded that the carrying value of goodwill for our Identity reporting unit was fully impaired and recorded an impairment charge of approximately \$1.0 million in our consolidated statements of operations during the second quarter of 2015.

During the quarter ended December 31, 2015, our stock price declined significantly which resulted in a significant reduction in our fair value and market capitalization. The stock price declined from \$3.64 as of October 1, 2015 to \$1.99 as of December 31, 2015, and subsequently dropped further, reaching a low of \$1.56 in February 2016. Additionally, our net losses continued in the quarter ended December 31, 2015. As a result, based on qualitative factors, we concluded that the carrying value of goodwill for the PACS reporting unit was fully impaired and recorded an impairment charge of \$7.8 million in our consolidated statement of operations in the fourth quarter of 2015.

Restructuring and Severance Charges

Fiscal Fiscal \$ %
2016 2015 Change Change
(\$ in thousands)

Restructuring and severance \$3,088 \$1,266 \$1,822 143.9 %

In the first quarter of 2016, we implemented a worldwide restructuring plan designed to refocus our resources on our core business segments, including physical access and transponders, and to consolidate our operations in several worldwide locations. The restructuring plan included reducing our non-manufacturing employee base, reallocating overhead roles into direct business activities and eliminating certain management and executive roles. As a result, we

incurred \$3.1 million in restructuring costs and severance costs in 2016. During 2015, we recorded \$1.3 million in restructuring and severance costs as part of management's continuing efforts to simplify business operations in 2015.

See Note 10, Restructuring and Severance in the accompanying notes to our consolidated financial statements for more information.

Non-operating Income (Expense)

Information about our non-operating income (expense) for the fiscal years ended December 31, 2016 and 2015 is set forth below.

Interest Expense, Net

Fiscal Fiscal \$ %
2016 2015 Change Change
(\$ in thousands)

Interest expense, net \$(2,378) \$(1,908) \$ (470 ) 24.6 %

Interest expense, net consists of interest on financial liabilities and interest accretion expense for a liability to a long-term payment obligation arising from our acquisition of Hirsch Electronics Corporation. The higher net interest expense in 2016 compared with 2015 is primarily due to the write-down of unamortized debt issuance costs of approximately \$0.2 million relating to the revolving loan facility modification in the first quarter of 2016 and amortization of costs associated with warrants issued to Opus in 2016 of \$0.6 million.

See Note 6, Long-Term Payment Obligation and Note 7, Financial Liabilities in the accompanying notes to our consolidated financial statements for more information on our interest expense and financial obligations.

Foreign Currency Gains (Losses), Net

```
FiscalFiscal $ % 2016 2015 Change Change ($ in thousands)

Foreign currency gains (losses), net $27 (1,211) $1,238 (102.2)%
```

Changes in currency valuation in the periods mainly were the result of exchange rate movements between the U.S. dollar and the Euro. Accordingly, they are predominantly non-cash items. Our foreign currency gains and losses primarily result from the valuation of current assets and liabilities denominated in a currency other than the functional currency of the respective entity in the local financial statements.

**Income Taxes** 

```
Fiscal Fiscal $ %
2016 2015 Change Change
($ in thousands)

Income tax provision $(132) $(222) $ 90 (40.5)%
```

Our tax rate is affected by recurring items, such as tax rates in foreign jurisdictions and the relative amount of income (loss) we earn in jurisdictions. It is also affected by discrete items that may occur in any given year, but are not consistent from year to year. The following items had the most significant impact on the difference between our statutory U.S. federal income tax rate of 34% and our effective tax rate in fiscal years 2016 and 2015.

2016 – A reduction of \$4.0 million, or 29.33% to the statutory rate resulted from changes in valuation allowance during the year. A reduction of \$0.4 million, or 3.09% resulted from rate differences between U.S. and non-U.S. jurisdictions. No U.S. taxes were provided with respect to undistributed earnings of foreign subsidiaries as these earnings are intended to be indefinitely reinvested outside the United States. Significant jurisdictions causing this difference are Germany and Singapore. The net effect of all changes was an income tax expense of \$0.1 million recorded in 2016.

2015 – A reduction of \$11.7 million, or 30.1% to the statutory rate resulted from changes in valuation allowance during the year. A reduction of \$2.6 million, or 6.8% resulted from the impairment of goodwill, and an addition of \$1.3 million, or 3.5% resulted from rate differences between U.S. and non-U.S. jurisdictions. No U.S. taxes were provided with respect to undistributed earnings of foreign subsidiaries as these earnings are intended to be indefinitely reinvested outside the United States. Significant jurisdictions causing this difference are Germany and Singapore. The net effect of all changes was an income tax expense of \$0.1 million recorded in 2015.

Liquidity and Capital Resources

As of December 31, 2016, our working capital, defined as current assets less current liabilities, was \$9.1 million, a decrease of \$15.5 million compared to \$24.6 million as of December 31, 2015. The decrease in working capital reflects a net loss of \$13.7 million and changes in operating assets and liabilities negatively impacting our liquidity of less than \$0.1 million for the year ended December 31, 2016, partially offset by non-cash adjustments of \$7.6 million. As of December 31, 2016, our cash balance was \$9.1 million.

The following summarizes our cash flows for the twelve months ended December 31, 2016 and 2015 (in thousands):

|   | Year Ended<br>December 31,<br>2016 2015 |
|---|---|
| Net cash used in operating activities               | \$(6,217) \$(23,003)                    |
| Net cash used in investing activities               | (549 ) (341 )                           |
| Net cash (used in) provided by financing activities | (221 ) 2,131                            |
| Effect of exchange rates on cash                    | (564 ) 1,333                            |
| Net decrease in cash                                | (7,551) (19,880)                        |
| Cash, beginning of year                             | 16,667 36,547                           |
| Cash, end of year                                   | \$9,116 \$16,667                        |

Significant commitments that will require the use of cash in future periods include obligations under operating leases, our contractual payment obligation assumed upon our acquisition of Hirsch, debt obligations, purchase commitments and other obligations. Gross committed operating lease obligations are \$2.8 million, our contractual payment obligation assumed upon our acquisition of Hirsch is \$4.8 million, the bank term loan, revolving loan facility and interest related obligation is \$18.9 million, and purchase commitments and other obligations are \$8.7 million at December 31, 2016. Total commitments due within one year are \$30.0 million and due thereafter are \$5.9 million at December 31, 2016. These commitment levels are based on existing terms of our operating leases, obligations with suppliers, our contractual payment obligation and the existing credit agreement with Opus as of December 31, 2016.

Cash used in operating activities for 2016 primarily was due to the net loss of \$13.7 million and decreases in cash from net changes in operating assets and liabilities of less than \$0.1 million which was partially offset by adjustments for certain non-cash items of \$7.6 million which primarily consisted of depreciation, amortization, amortization of debt issue costs and stock-based compensation. For 2015, cash used in operating activities primarily was due to the net loss of \$39.2 million and a decrease in cash from net changes in operating assets and liabilities of \$1.3 million, which were partially offset be adjustments for certain non-cash items of \$17.5 million.

Cash used in investing activities for 2016 reflects \$0.5 million in capital expenditures. For 2015, cash used in investing activities reflects \$0.3 million in capital expenditures.

Cash used in financing activities for 2016 related to repurchases of our common stock surrendered to us to satisfy tax withholding obligations in connection with the vesting of restricted stock units issued to employees of \$0.2 million. Cash provided by financing activities for 2015 reflects an additional \$4.0 million in proceeds from debt borrowings less cash used to repurchase common stock of \$1.9 million.

We consider the undistributed earnings of our foreign subsidiaries, if any, as of December 31, 2016, to be indefinitely reinvested and, accordingly, no U.S. income taxes have been provided thereon. Generally most of our foreign subsidiaries have accumulated deficits and cash and cash equivalents that are held outside the United States are typically not cash generated from earnings that would be subject to tax upon repatriation if transferred to the United States. We have access to the cash held outside the United States to fund domestic operations and obligations without any material income tax consequences. As of December 31, 2016, the amount of cash included at such subsidiaries was \$1.3 million. We have not, nor do we anticipate the need to, repatriate funds to the United States to satisfy domestic liquidity needs arising in the ordinary course of business, including liquidity needs associated with our domestic debt service requirements.

On February 8, 2017, we entered into Loan and Security Agreements with East West Bank and Venture Lending & Leasing VII, Inc. and Venture Lending & Leasing VIII, Inc. (collectively referred to as "VLL7 and VLL8"). The Loan and Security Agreement with East West Bank provides for a \$10.0 million revolving loan facility, and the Loan

Security Agreement with VLL7 and VLL8 provides for a term loan in aggregate principal amount of \$10.0 million. In connection with the closing of both Loan and Security Agreements, we repaid all outstanding amounts under our Credit Agreement with Opus Bank. See Note 7 Financial Liabilities, in the accompanying notes to our consolidated financial statements for more information.

We have historically incurred operating losses and negative cash flows from operating activities, and we expect to continue to incur losses for the foreseeable future. As of December 31, 2016, we have a total accumulated deficit of \$391.5 million. During the year ended December 31, 2016, we sustained a consolidated net loss of \$13.7 million. Although we have, and expect to continue, to realize benefits of the restructuring initiatives realized in 2016, we may continue to incur losses in the future.

We believe our existing cash balance, together with cash generated from operations and available credit under our loan agreements, will be sufficient to satisfy our working capital needs to fund operations for the next twelve months. We may also use

cash to acquire or invest in complementary businesses, technologies, services or products that would change our cash requirements. If we are not able to generate revenue to finance our cash requirements, we will need to finance future cash needs primarily through public or private equity offerings, debt financings or other arrangements. However, there can be no assurance that additional capital, if required, will be available to us or that such capital will be available to us on acceptable terms. If we raise funds by issuing equity securities, dilution to stockholders could result. Any equity securities issued also may provide for rights, preferences or privileges senior to those of holders of our common stock. The terms of debt securities issued or borrowings could impose significant restrictions on our operations. The incurrence of additional indebtedness or the issuance of certain equity securities could result in increased fixed payment obligations and could also result in restrictive covenants, such as limitations on our ability to incur additional debt or issue additional equity, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely affect our ability to conduct our business. Our loan agreements impose restrictions on our operations, increases our fixed payment obligations and has restrictive covenants. In addition, the issuance of additional equity securities by us, or the possibility of such issuance, may cause the market price of our common stock to decline. If we are not able to secure additional funding when needed, we may have to curtail or reduce the scope of our business or forgo potential business opportunities.

## Off-Balance Sheet Arrangements

We have not entered into off-balance sheet arrangements, or issued guarantees to third parties.

## **Contractual Obligations**

The following summarizes expected cash requirements for contractual obligations, excluding the bank term loan and revolving loan facility, as of December 31, 2016 (in thousands):

|  |          |                |         |       | Mor       | e  |
|--|----------|----------------|---------|-------|-----------|----|
|  |          | Less<br>than 1 | 1-3     | 3-5   | than<br>5 |    |
|  | Total    | Year           | Years   | Years | Year      | rs |
| Operating leases                           | \$2,648  | \$1,291        | \$1,095 | \$262 | \$        | _  |
| Contractual payment obligation             | 5,517    | 1,192          | 3,956   | 369   |           | _  |
| Purchase commitments and other obligations | 8,662    | 8,583          | 79      |       |           | _  |
| Total obligations                          | \$16,827 | \$11,066       | \$5,130 | \$631 | \$        |    |

Our contractual payment obligation was assumed upon our acquisition of Hirsch. See Note 6, Contractual Payment Obligation, in the accompanying notes to our consolidated financial statements.

Bank term loan and revolving loan facility contractual obligations include payments to be made for principal and interest in accordance with the terms at December 31, 2016 of the Credit Agreement we entered into with Opus as amended on November 10, 2014, December 4, 2015 and March 31, 2016. See Note 7, Financial Liabilities, in the accompanying notes to our consolidated financial statements.

We lease facilities, certain equipment, and automobiles under non-cancelable operating lease agreements. Purchases for inventories are highly dependent upon forecasts of customer demand. Due to the uncertainty in demand from our customers, we may have to change, reschedule, or cancel purchases or purchase orders from our suppliers. These changes may lead to vendor cancellation charges on these orders or contractual commitments. See Note 12,

Commitments and Contingencies, in the accompanying notes to our consolidated financial statements.

Our other long-term liabilities include gross unrecognized tax benefits, and related interest and penalties. At this time, we are unable to make a reasonably reliable estimate of the timing of payments in individual years in connection with these tax liabilities. Accordingly, such amounts are not included in the contractual obligation table above.

## **Critical Accounting Policies**

Our consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States ("U.S. GAAP"). The preparation of these financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Management bases its estimates and judgments on historical experience and on various other factors which we believe are reasonable based upon the information available to us at the time these estimates, judgments and assumptions are made. Actual results may differ from these estimates under different assumptions or conditions. Management believes the following critical accounting policies contain our more significant judgments and estimates used in the preparation of our consolidated financial statements:

Revenue Recognition;

Inventory Valuation;

Income Taxes:

Intangible and Long-lived Assets; and

Stock-based Compensation.

Revenue Recognition

Revenue is recognized when all of the following criteria have been met:

Persuasive evidence of an arrangement exists. We generally rely upon sales contracts or agreements, and customer purchase orders to determine the existence of an arrangement.

Delivery has occurred. We use shipping terms and related documents, or written evidence of customer acceptance, when applicable, to verify delivery or performance.

Sales price is fixed or determinable. We assess whether the sales price is fixed or determinable based on the payment terms and whether the sales price is subject to refund or adjustment.

Collectability is reasonably assured. We assess collectability based on creditworthiness of customers as determined by credit checks and customer payment histories. We record accounts receivable net of allowance for doubtful accounts, estimated customer returns, and pricing credits.

We recognize revenue in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) ASC 605-25, Revenue Recognition – Multiple Element Arrangements, and, in certain transactions, ASC 985 Software – Revenue Recognition.

In multiple-element arrangements, some sales arrangement are accounted for under the software provisions of ASC 985-605 and others under the provisions that relate to the sale of non-software products.

In multiple-element arrangements that include a hardware, bundled with professional services, maintenance contracts, and in some cases with its software products, we evaluate each element, delivered and undelivered, in an arrangement to determine whether it represents a separate unit of accounting. In these multiple element arrangements, revenue is allocated among all elements, delivered and undelivered, based on a vendor-specific objective evidence ("VSOE"), if available, third-party evidence ("TPE") if VSOE is not available, or estimated selling price ("ESP") if neither VSOE nor TPE is available. VSOE of selling price is based on the price charged when the element is sold separately. TPE of selling price is established by evaluating largely interchangeable competitor products or services in stand-alone sales to similarly situated customers. The best estimate of selling price is established considering multiple factors, including pricing practices in different geographies and through different sales channels, gross margin objectives, internal costs, competitor pricing strategies and industry technology lifecycles. Some of our offerings contain a significant element of proprietary technology and provide substantially unique features and functionality; as a result, the comparable pricing of products with similar functionality typically cannot be obtained. Additionally, as we are unable to reliably determine what competitors products' selling prices are on a stand-alone basis, typically we are not able to determine TPE for such products. Therefore ESP is used for such products in the selling price hierarchy for allocating the total

arrangement consideration.

In multiple-element arrangements that include software, we account for each element under the standards of ASC 985-605 related to software. When software is a delivered element, we use the residual method (ASC 605-25) for determining the amount of revenue to recognize for the delivered software component if VSOE for all of the undelivered elements has been established. In sales arrangements where VSOE of fair value has not been established, revenue for all elements is deferred and amortized over the life of the arrangement.

Revenue from professional services contracts is recognized upon completion of services and customer acceptance, if applicable. Professional services include security system integration, system migration and database conversion services. Revenue from maintenance contracts is deferred and recognized ratably over the period of the maintenance contracts. Certain sales arrangement contains hardware, software and professional service elements where professional services are essential to the functionality of the hardware and software system and a test of the functionality of the complete system is required before the customer accepts the system. As a result, hardware, software and professional service elements are accounted for as one unit of accounting and revenue from these arrangements is recognized upon completion of the project.

## **Inventory Valuation**

Inventories are stated at the lower of cost (using FIFO, average cost or standard cost, as applicable) or market (net realizable value). We typically plan our production and inventory levels based on internal forecasts of customer demand, which can be highly unpredictable and can fluctuate significantly. We regularly review inventory quantities on hand and record an estimated provision for excess inventory reserve based on judgment and assumptions involving an evaluation of technical obsolescence and our ability to sell based primarily on historical sales patterns and expectations for future demand. Actual demand and market conditions may differ from the projections utilized by management in establishing our inventory reserves. If we were to use different assumptions or utilize different estimates, the amount and timing of our inventory reserves could be materially different. Adverse changes in our inventory reserve valuations could have a material effect on our operating results and financial position.

## **Income Taxes**

Our income tax expense, deferred tax assets and liabilities, and reserves for unrecognized tax benefits reflect management's assessment of estimated current and future income taxes to be paid. We are subject to income taxes in both the United States and numerous foreign jurisdictions. Significant judgments and estimates are required in determining the consolidated income tax expense, deferred tax assets and liabilities and reserves for unrecognized tax benefits.

Deferred tax assets and liabilities arise from temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements, which are expected to result in taxable or deductible amounts in the future. In evaluating our ability to recover our deferred tax assets within the jurisdiction from which they arise, for all material jurisdictions, we consider all available positive and negative evidence, including scheduled reversals of deferred tax balances, projected future taxable income, tax-planning strategies and results of recent operations. In projecting future taxable income, we begin with historical results adjusted for the results of discontinued operations and incorporate assumptions about the amount of future state, federal and foreign pretax operating income adjusted for items that do not have tax consequences. The assumptions about future taxable income require significant judgment and are consistent with the plans and estimates we use to manage the underlying businesses. In evaluating the objective evidence that historical results provide, we consider three years of cumulative operating results.

As of December 31, 2016, we have federal and state income tax net operating loss ("NOL") carryforwards of \$103.3 million and \$35.6 million, respectively, which will expire at various dates. Such NOL carryforwards expire as follows (in thousands):

| Years       | Amounts |
|-------------|---------|
| 2016 - 2021 | \$115   |
| 2022 - 2027 | 48,615  |
| 2028 - 2033 | 27,915  |
| 2034 - 2038 | 62,264  |

Total \$138,909

We believe that it is more likely than not that the benefit from these NOL carryforwards will not be realized. Accordingly, we have provided a full valuation allowance on any potential deferred tax assets relating to these state NOL carryforwards. If our assumptions change and we determine we will be able to realize these NOLs, the tax benefits relating to any reversal of the valuation allowance on deferred tax assets as of December 31, 2016, will be accounted for as a reduction of income tax expense.

The calculation of our tax liabilities involves evaluating uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions across our global operations. ASC 740 states that a tax benefit from an uncertain tax position may be recognized when it is more likely than not that the position will be sustained upon examination, including the resolution of any related appeals or litigation processes, on the basis of the technical merits.

We (1) record unrecognized tax benefits as liabilities in accordance with ASC 740 and (2) adjust these liabilities when our judgment changes as a result of the evaluation of new information not previously available. Because of the complexity of some of these uncertainties, the ultimate resolution may result in a tax payment that is materially different from our current estimate of the

unrecognized tax benefit liabilities. These differences will be reflected as increases or decreases to income tax expense in the period in which new information is made available.

We believe that none of the unrecognized tax benefits, excluding the associated interest and penalties, which are insignificant, may be recognized by the end of 2016.

We consider the earnings of all our non-U.S. subsidiaries to be indefinitely invested outside the United States on the basis of estimates that future domestic cash generation will be sufficient to meet future domestic cash needs and our specific plans for reinvestment of those subsidiary earnings. Should we decide to repatriate foreign earnings, we would need to adjust our income tax provision in the period we determined that the earnings will no longer be indefinitely invested outside the United States.

#### Intangible and Long-lived Assets

We evaluate our long-lived assets and certain identifiable amortizable intangible assets for impairment in accordance with ASC 360, Property, Plant and Equipment ("ASC 360") whenever events or changes in circumstances indicate that the carrying amount of such assets or intangibles may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net undiscounted cash flows expected to be generated by an asset group. If such asset groups are considered to be impaired (i.e., if the sum of its estimated future undiscounted cash flows used to test for recoverability is less than its carrying value), the impairment loss to be recognized is measured by the amount by which the carrying amount of the asset group exceeds the fair value of the asset groups. Intangible assets with definite lives are amortized using the straight-line method over the estimated useful lives of the related assets.

#### **Stock-based Compensation**

We recognize stock-based compensation expense for all share-based payment awards in accordance with ASC 718, Compensation – Stock Compensation ("ASC 718"). Stock-based compensation expense for expected-to-vest awards is valued under the single-option approach and amortized on a straight-line basis, net of estimated forfeitures. We utilize the Black-Scholes-Merton option-pricing model in order to determine the fair value of stock-based option awards. The Black-Scholes-Merton model requires various highly subjective assumptions including volatility, expected option life, and risk-free interest rate. The assumptions used in calculating the fair value of share-based payment awards represent management's best estimates. These estimates involve inherent uncertainties and the application of management judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future. In addition, we are required to estimate the expected forfeiture rate and recognize expense only for those expected-to-vest shares. If our actual forfeiture rate is materially different from our estimate, our recorded stock-based compensation expense and operating results could be different.

## **Recent Accounting Pronouncements**

See Note 1, Organization and Summary of Significant Accounting Policies, in the accompanying notes to our audited consolidated financial statements in Item 8 of Part II of this Annual Report for a full description of recent accounting pronouncements, which is incorporated herein by reference.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK Not applicable.

# ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Consolidated Financial Statements

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#### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and

Stockholders of Identiv, Inc.

We have audited the accompanying consolidated balance sheets of Identiv, Inc. (a Delaware corporation) and its subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2016. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Identiv, Inc. and its subsidiaries as of December 31, 2016 and 2015 and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America.

/s/ BPM LLP

San Jose, California

March 27, 2017

# CONSOLIDATED BALANCE SHEETS

(In thousands, except par value)

|   | December | •        |
|---|----------|----------|
| ASSETS  | 2016     | 2015     |
| Current assets:   |          |          |
| Cash  | \$9,116  | \$16,667 |
| Accounts receivable, net of allowances of \$307 and \$346 as of December 31, 2016   | \$9,110  | \$10,007 |
| Accounts receivable, net of anowances of \$307 and \$340 as of December 31, 2010    |          |          |
| and 2015, respectively  | 9,430    | 7,915    |
| Inventories   | 11,596   | 14,726   |
| Prepaid expenses and other current assets   | 1,510    | 1,518    |
| Total current assets  | 31,652   | 40,826   |
| Property and equipment, net   | 2,416    | 4,218    |
| Intangible assets, net  | 5,820    | 7,275    |
| Other assets  | 712      | 1,129    |
| Total assets  | \$40,600 | \$53,448 |
| LIABILITIES AND STOCKHOLDERS´ EQUITY  | •        | ,        |
| Current liabilities:  |          |          |
| Accounts payable  | \$6,024  | \$6,280  |
| Current portion - payment obligation  | 786      | 681      |
| Current portion - financial liabilities, net of discount and debt issuance costs    |          |          |
| •   |          |          |
| of \$180 and \$0, respectively  | 8,119    |          |
| Deferred revenue  | 1,085    | 1,515    |
| Accrued compensation and related benefits   | 1,520    | 1,905    |
| Other accrued expenses and liabilities  | 5,032    | 5,835    |
| Total current liabilities   | 22,566   | 16,216   |
| Long-term payment obligation  | 3,987    | 4,878    |
| Long-term financial liabilities, net of discount of and debt issuance costs         |          |          |
|   |          |          |
| of \$221 and \$644, respectively (see Note 7)                                       | 9,779    | 17,656   |
| Other long-term liabilities   | 335      | 508      |
| Total liabilities   | 36,667   | 39,258   |
| Commitments and contingencies (see Note 12)   |          |          |
| Stockholders' equity:   |          |          |
| Identiv, Inc. stockholders' equity:   |          |          |
| Preferred stock, \$0.001 par value: 10,000 shares authorized; none issued and       |          |          |
|   |          |          |
| outstanding   |          | _        |
| Common stock, \$0.001 par value: 50,000 shares authorized; 11,836 and 11,365 shares | 11       | 11       |
|   |          |          |
| issued and 11,109 and 10,747 shares outstanding as of December 31, 2016 and         |          |          |

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| 2015, respectively  |           |           |
|---|-----------|-----------|
| Additional paid-in capital  | 400,266   | 396,407   |
| Treasury stock, 727 and 618 shares as of December 31, 2016 and 2015, respectively | (6,708)   | (6,487)   |
| Accumulated deficit   | (391,509) | (377,814) |
| Accumulated other comprehensive income  | 2,053     | 2,229     |
| Total Identiv, Inc. stockholders' equity  | 4,113     | 14,346    |
| Noncontrolling interest   | (180)     | (156)     |
| Total stockholders' equity  | 3,933     | 14,190    |
| Total liabilities and stockholders equity   | \$40,600  | \$53,448  |

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

## CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

|  | Year Ende<br>December |            |
|--|-----------------------|------------|
|  | 2016                  | 2015       |
| Net revenue  | \$56,168              | \$60,794   |
| Cost of revenue  | 32,439                | 37,645     |
| Gross profit   | 23,729                | 23,149     |
| Operating expenses:  |                       |            |
| Research and development   | 6,520                 | 9,151      |
| Selling and marketing  | 14,032                | 20,236     |
| General and administrative   | 11,309                | 19,604     |
| Impairment of goodwill   |                       | 8,771      |
| Restructuring and severance  | 3,088                 | 1,266      |
| Total operating expenses   | 34,949                | 59,028     |
| Loss from operations   | (11,220)              | (35,879)   |
| Non-operating income (expense):  |                       |            |
| Interest expense, net  | (2,378)               | (1,908)    |
| Foreign currency gains (losses), net                                     | 27                    | (1,211)    |
| Loss before income taxes and noncontrolling interest                     | (13,571)              | (38,998)   |
| Income tax provision   | (132)                 | (222)      |
| Loss before noncontrolling interest                                      | (13,703)              | (39,220)   |
| Less: Loss attributable to noncontrolling interest                       | 8                     | 76         |
| Net loss attributable to Identiv, Inc.                                   | \$(13,695)            | \$(39,144) |
| Basic and diluted net loss per share attributable to Identiv, Inc.       | \$(1.25)              | \$(3.62)   |
| Weighted average shares used to compute basic and diluted loss per share | 10,916                | 10,812     |

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

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(In thousands)

|   | Year Ende<br>December<br>2016 |            |
|---|-------------------------------|------------|
| Net loss  | \$(13,703)                    | \$(39,220) |
| Other comprehensive loss, net of income taxes:                              |                               |            |
| Foreign currency translation adjustment                                     | (192)                         | 971        |
| Foreign currency translation reclassified into net loss upon acquisition of |                               |            |
|   |                               |            |
| noncontrolling interest   |                               | (444 )     |
| Total other comprehensive (loss) income, net of income taxes                | (192)                         | 527        |
| Comprehensive loss  | (13,895)                      | (38,693)   |
| Less: Comprehensive loss attributable to noncontrolling interest            | 24                            | 79         |
| Comprehensive loss attributable to Identiv, Inc. common stockholders        | \$(13,871)                    | \$(38,614) |

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

# CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands; except par value)

31,

|   | identiv, in   | ic. Stoci | Miolucis Eq                       | uity              |                     | Accumulate         | ed                        |   |                 |
|---|---------------|-----------|-----------------------------------|-------------------|---------------------|--------------------|---------------------------|---|-----------------|
|   | Common Shares |           | Additional<br>Paid-in<br>tCapital | Treasury<br>Stock | Accumulated Deficit | Other<br>Comprehen | nsivNoncontro<br>Interest | _ | ∓otal<br>Equity |
| Balances, January 1, 2015                               | 10,640        | \$ 11     | \$389,401                         | \$(4,572)         | \$ (338,670 )       | \$ 1,699           | \$ (1,737                 | ) | 46,132          |
| Net loss  | _             | _         | _                                 | _                 | (39,144)            | _                  | (76                       | ) | (39,220)        |
| Other comprehensive loss                                | _             | _         | _                                 | _                 | _                   | 974                | (3                        | ) | 971             |
| Issuance of common stock                                |               |           |                                   |                   |                     |                    | Ì                         |   |                 |
| in connection with                                      |               |           |                                   |                   |                     |                    |                           |   |                 |
| settlement of<br>earnout<br>Issuance of common<br>stock | 326           | _         | 3,510                             | _                 | _                   | _                  | _                         |   | 3,510           |
| to acquire share of                                     |               |           |                                   |                   |                     |                    |                           |   |                 |
| noncontrolling interest                                 | 95            | _         | (1,216 )                          | _                 | _                   | (444               | ) 1,660                   |   | _               |
| Issuance of common stock                                |               |           |                                   |                   |                     | ·                  |                           |   |                 |
| in connection with                                      |               |           |                                   |                   |                     |                    |                           |   |                 |
| exercise of options and                                 |               |           |                                   |                   |                     |                    |                           |   |                 |
| warrants  | 60            |           | 46                                |                   |                     | _                  | _                         |   | 46              |
| Stock-based   |               |           | . 0                               |                   |                     |                    |                           |   |                 |
| compensation  | _             |           | 4,515                             |                   |                     | _                  | _                         |   | 4,515           |
| Issuance of warrants                                    | <u> </u>      |           | 151                               | _                 |                     |                    | _                         |   | 151             |
| Repurchase of common                                    |               |           | 202                               |                   |                     |                    |                           |   | 20.2            |
| stock   | (374)         | _         | _                                 | (1,915)           | _                   | _                  | _                         |   | (1,915)         |
| Balances, December                                      | 10,747        | 11        | 396,407                           | (6,487)           | (377,814)           | 2,229              | (156                      | ) | 14,190          |

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| 2015                     |        |       |           |           |             |      |       |   |         |     |          |
|--------------------------|--------|-------|-----------|-----------|-------------|------|-------|---|---------|-----|----------|
| Net loss                 |        | _     | _         | _         | (13,695     | )    |       |   | (8      | )   | (13,703) |
| Other comprehensive      |        |       |           |           |             |      |       |   |         |     |          |
| loss                     | _      | _     | _         | _         | _           |      | (176  | ) | (16     | )   | (192)    |
| Issuance of warrants     | _      | _     | 569       | _         | _           |      | _     |   | _       |     | 569      |
| Issuance of common stock |        |       |           |           |             |      |       |   |         |     |          |
| in connection with       |        |       |           |           |             |      |       |   |         |     |          |
| vesting of stock awards  | 471    | _     | _         | _         | _           |      | _     |   | _       |     | _        |
| Stock-based              |        |       |           |           |             |      |       |   |         |     |          |
| compensation             | _      | —     | 3,290     | _         | _           |      | _     |   | _       |     | 3,290    |
| Repurchase of common     |        |       |           |           |             |      |       |   |         |     |          |
| stock                    | (109)  | _     | _         | (221)     | _           |      | _     |   | _       |     | (221)    |
| Balances, December 31,   |        |       |           |           |             |      |       |   |         |     |          |
| 2016                     | 11,109 | \$ 11 | \$400,266 | \$(6,708) | \$ (391,509 | ) \$ | 2,053 | 9 | \$ (180 | ) : | \$3,933  |

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

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

|   | Year End        | r 31,       |
|---|-----------------|-------------|
|   | 2016            | 2015        |
| Cash flows from operating activities:                                       | * * * = = 0 = * |             |
| Net loss  | \$(13,703)      | \$(39,220)  |
| Adjustments to reconcile net loss to net cash used in operating activities: |                 |             |
| Depreciation and amortization   | 3,170           | 3,148       |
| Impairment of goodwill and long-lived assets                                | _               | 8,771       |
| Accretion of interest on long-term payment obligation                       | 399             | 536         |
| Amortization of debt issuance costs   | 811             | 408         |
| Stock-based compensation expense  | 2,842           | 4,667       |
| Loss on disposal of fixed assets  | 331             | 17          |
| Changes in operating assets and liabilities:                                |                 |             |
| Accounts receivable   | (1,437)         |             |
| Inventories   | 3,285           | (5,858)     |
| Prepaid expenses and other assets   | 441             | 196         |
| Accounts payable  | (191            | (1,890)     |
| Payment obligation liability  | (1,185          | (1,157)     |
| Deferred revenue  | (430            | ) 1,009     |
| Accrued expenses and other liabilities                                      | (550            | ) 920       |
| Net cash used in operating activities                                       | (6,217          | (23,003)    |
| Cash flows from investing activities:                                       |                 |             |
| Capital expenditures  | (549            | ) (341 )    |
| Net cash used in investing activities                                       | (549            | ) (341 )    |
| Cash flows from financing activities:                                       |                 |             |
| Proceeds from issuance of debt, net of issuance costs                       | _               | 4,000       |
| Proceeds from issuance of common stock under stock plans                    | _               | 46          |
| Repurchase of common stock  | (221            | (1,915)     |
| Net cash (used in) provided by financing activities                         | (221            | 2,131       |
| Effect of exchange rates on cash  | (564            | ) 1,333     |
| Net decrease in cash  | (7,551          | (19,880)    |
| Cash at beginning of period   | 16,667          | 36,547      |
| Cash at end of period   | \$9,116         | \$16,667    |
| Supplemental Disclosures of Cash Flow Information:                          |                 |             |
| Interest paid   | \$1,615         | \$1,400     |
| Taxes paid  | \$167           | \$104       |
| Non-cash investing and financing activities:                                |                 |             |
| Warrants issued in connection with debt                                     | \$569           | <b>\$</b> — |
| Common stock issued to settle earn-out obligation                           | \$—             | \$3,510     |
| Common stock issued to acquire share of noncontrolling interest             | \$—             | \$1,216     |
| Property and equipment included in accruals                                 | \$32            | \$333       |
| Restricted stock units issued in settlement of accruals                     | \$448           | \$—         |
|   |                 |             |

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

#### IDENTIV, INC. AND SUBSIDIARIES

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### 1. Organization and Summary of Significant Accounting Policies

Identiv, Inc. ("Identiv" or the "Company,") is a global security technology company that secures data, physical places and things. Global organizations in the government, education, retail, transportation, healthcare and other markets rely upon the Company's solutions. We empower them to create safe, secure, validated and convenient experiences in schools, government offices, factories, transportation, hospitals and virtually every type of facility.

The Company's corporate headquarters are in Fremont, California. The Company maintains research and development facilities in California, and Chennai, India and local operations and sales facilities in Germany, Hong Kong, Japan, Singapore, and the United States. The Company was founded in 1990 in Munich, Germany and was incorporated in 1996 under the laws of the State of Delaware.

Principles of Consolidation and Basis of Presentation — The accompanying consolidated financial statements include the accounts of the Company and its wholly and majority owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Reclassifications — Certain reclassifications, such as the accounting for debt issuance costs consistent with Accounting Standards Update ("ASU"), Simplifying the Presentation of Debt Issuance Costs ("ASU 2015-03"), have been made to the fiscal year 2015 financial statements to conform to the fiscal year 2016 presentation.

Allowance for Doubtful Accounts — The allowance for doubtful accounts is based on the Company's assessment of the collectibility of customer accounts. The Company regularly reviews its receivables that remain outstanding past their applicable payment terms and establishes an allowance and potential write-offs by considering factors such as historical experience, credit quality, age of the accounts receivable balances, and current economic conditions that may affect a customer's ability to pay. Although the Company expects to collect net amounts due as stated on the consolidated balance sheets, actual collections may differ from these estimated amounts.

Inventories — Inventories are stated at the lower of cost, using standard cost, approximating average cost, or FIFO method, as applicable, or market value. Inventory is written down for excess inventory, technical obsolescence and the inability to sell based primarily on historical sales and expectations for future use. The Company operates in an industry characterized by technological change. The planning of production and inventory levels is based on internal forecasts of customer demand, which are highly unpredictable and can fluctuate substantially. Should the demand for the Company's products prove to be significantly less than anticipated, the ultimate realizable value of the Company's inventory could be substantially less than amounts in the consolidated balance sheets. Once inventory has been written down below cost, it is not subsequently written up.

Property and Equipment — Property and equipment are stated at cost less accumulated depreciation. Depreciation and amortization are computed using the straight-line method over estimated useful lives of three to ten years for furniture, fixture and office equipment, five to seven years for machinery, five years for automobiles and three years for computer software. Leasehold improvements are amortized over the shorter of the lease term or their estimated useful life.

Intangible and Long-lived Assets — The Company evaluates its long-lived assets and amortizable intangible assets in accordance with ASC Topic 360, Property, Plant and Equipment ("ASC 360"). The Company evaluates its long-lived assets and identifiable amortizable intangible assets for impairment whenever events or changes in circumstances

indicate that the carrying amount of such assets or intangibles may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net undiscounted cash flows expected to be generated by an asset. If such assets are considered to be impaired (i.e., if the sum of its estimated future undiscounted cash flows used to test for recoverability is less than its carrying value), the impairment loss to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Intangible assets with definite lives are amortized on a straight-line basis over their estimated useful lives of the related assets as the straight-line method is considered to align with expected cash flows. Each period the Company evaluates the estimated remaining useful life of purchased intangible assets and whether events or changes in circumstances warrant a revision to the remaining period of amortization. For intangible assets determined to have an indefinite useful life, no amortization is recognized until the assets' useful life is determined to be no longer indefinite. As discussed in Note 5, Goodwill and Intangible Assets, the Company performed an impairment analysis in the fourth quarter of 2016 and found no indicators of impairment.

Product Warranty — The Company accrues the estimated cost of product warranties at the time of sale. The Company's warranty obligation is affected by actual warranty costs, including material usage or service delivery costs incurred in correcting a

product failure. If actual material usage or service delivery costs differ from estimates, revisions to the estimated warranty liability would be required. Historically the warranty accrual and the expense amounts have been immaterial.

Revenue Recognition — Revenue is recognized when all of the following criteria have been met:

- Persuasive evidence of an arrangement exists. The Company generally relies upon sales contracts or agreements, and customer purchase orders to determine the existence of an arrangement.
- Delivery has occurred. The Company uses shipping terms and related documents, or written evidence of customer acceptance, when applicable, to verify delivery or performance.
- Sales price is fixed or determinable. The Company assesses whether the sales price is fixed or determinable based on the payment terms and whether the sales price is subject to refund or adjustment.
- Collectability is reasonably assured. The Company assesses collectability based on creditworthiness of customers as determined by credit checks and customer payment histories. The Company records accounts receivable net of allowance for doubtful accounts, estimated customer returns, and pricing credits.

The Company recognizes revenue in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") ASC 605-25, Revenue Recognition – Multiple Element Arrangements, and, in certain transactions, ASC 985 Software – Revenue Recognition.

In multiple-element arrangements, some sales arrangement are accounted for under the software provisions of ASC 985-605 and others under the provisions that relate to the sale of non-software products.

In multiple-element arrangements that include hardware, bundled with professional services, maintenance contracts, and in some cases with its software products, the Company evaluates each element, delivered and undelivered, in an arrangement to determine whether it represents a separate unit of accounting. In these multiple element arrangements, revenue is allocated among all elements, delivered and undelivered, based on a vendor-specific objective evidence ("VSOE"), if available, third-party evidence ("TPE") if VSOE is not available, or estimated selling price ("ESP") if neither VSOE nor TPE is available. VSOE of selling price is based on the price charged when the element is sold separately. TPE of selling price is established by evaluating largely interchangeable competitor products or services in stand-alone sales to similarly situated customers. The best estimate of selling price is established considering multiple factors, including pricing practices in different geographies and through different sales channels, gross margin objectives, internal costs, competitor pricing strategies and industry technology lifecycles. Some of the Company's offerings contain a significant element of proprietary technology and provide substantially unique features and functionality; as a result, the comparable pricing of products with similar functionality typically cannot be obtained. Additionally, as the Company is unable to reliably determine what competitors products' selling prices are on a stand-alone basis, typically the Company is not able to determine TPE for such products. Therefore ESP is used for such products in the selling price hierarchy for allocating the total arrangement consideration.

In multiple-element arrangements that include software, the Company accounts for each element under the standards of ASC 985-605 related to software. When software is a delivered element, the Company uses the residual method (ASC 605-25) for determining the amount of revenue to recognize for the delivered software component if VSOE for all of the undelivered elements has been established. In sales arrangements where VSOE of fair value has not been established, revenue for all elements is deferred and amortized over the life of the arrangement.

Revenue from professional services contracts is recognized upon completion of services and customer acceptance, if applicable. Professional services include security system integration, system migration and database conversion services. Revenue from maintenance contracts is deferred and recognized ratably over the period of the maintenance contracts. Certain sales arrangements contain hardware, software and professional service elements where professional services are essential to the functionality of the hardware and software system and a test of the functionality of the complete system is required before the customer accepts the system. As a result, hardware, software and professional service elements are accounted for as one unit of accounting and revenue from these arrangements is recognized upon completion of the project.

Research and Development — Costs to research, design, and develop the Company's products are expensed as incurred and consist primarily of employee compensation and fees for the development of prototype products. Software development costs are capitalized beginning when a product's technological feasibility has been established and ending when a product is available for general release to customers. Generally, the Company's products are released soon after technological feasibility has been established. As a result, costs subsequent to achieving technological feasibility have not been significant, and all software development costs generally have been expensed as incurred. The Company capitalizes certain costs for its internal-use software incurred during the application development stage. Costs related to preliminary project activities and post implementation activities are expensed as

incurred. Internal-use software is amortized on a straight line basis over its estimated useful life, generally three years. The estimated useful life is determined based on management's judgment on how long the core technology and functionality serves internal needs and the customer base. Management evaluates the useful lives of these assets on an annual basis and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets. The Company recorded amortization expense related to software development costs, including amounts written-off related to capitalized costs, in the amount of \$0.4 million and \$0.3 million for the years ended December 31, 2016 and 2015, respectively.

Freight Costs — The Company reflects the cost of shipping its products to customers as a cost of revenue. Reimbursements received from customers for freight costs are recognized as product revenue.

Income Taxes — The Company accounts for income taxes in accordance with ASC Topic 740, Income Taxes ("ASC 740"), which requires the asset and liability approach for financial accounting and reporting of income taxes. Deferred income taxes reflect the recognition of future tax consequences of events that have been recognized in the Company's financial statements or tax returns. The carrying value of net deferred tax assets reflects that the Company has been unable to generate sufficient taxable income in certain tax jurisdictions. A valuation allowance is provided to reduce the deferred tax asset to an amount that is more likely than not to be realized. The deferred tax assets are still available for the Company to use in the future to offset taxable income, which would result in the recognition of a tax benefit and a reduction in the Company's effective tax rate. Actual operating results and the underlying amount and category of income in future years could render the Company's current assumptions, judgments and estimates of the realizability of deferred tax assets inaccurate, which could have a material impact on its financial position or results of operations.

The Company accounts for uncertain tax positions in accordance with ASC 740, which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements. It prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. Such changes in recognition or measurement might result in the recognition of a tax benefit or an additional charge to the tax provision in the period.

The Company recognizes interest and penalties related to unrecognized tax benefits within the income tax expense line in the accompanying consolidated statement of operations. Accrued interest and penalties are included within the related tax liability line in the consolidated balance sheet. See Note 8, Income Taxes, for further information regarding the Company's tax disclosures.

Stock-based Compensation — The Company accounts for all stock-based payment awards, including employee stock options and restricted stock awards, in accordance with ASC Topic 718, Compensation-Stock Compensation ("ASC 718"). Under the fair value recognition provisions of this topic, stock-based compensation cost is measured at the grant date based on the fair value of the award. Compensation expense for all stock-based payment awards is recognized using the straight-line single-option approach. Employee stock options awards are valued under the single-option approach and amortized on a straight-line basis, net of estimated forfeitures. The value of the portion of the stock options award that is ultimately expected-to-vest is recognized as expense over the requisite service periods in the Company's consolidated statements of operations. See Note 3 for further information regarding the Company's stock-based compensation assumptions and expenses.

The Company has elected to use the Black Scholes option-pricing model to estimate the fair value of its options, which incorporates various subjective assumptions including volatility, risk-free interest rate, expected life, and dividend yield to calculate the fair value of stock option awards. Since the Company has been publicly traded for many years, it utilizes its own historical volatility in valuing its stock option grants. The expected life of an award is based on historical experience, the terms and conditions of the stock awards granted to employees, as well as the potential effect from options that have not been exercised at the time. The assumptions used in calculating the fair value of stock-based payment awards represent management's estimates. These estimates involve inherent

uncertainties and the application of management's judgment. If factors change and the Company uses different assumptions, its stock-based compensation expense could be materially different in the future. In addition, the Company estimates the expected forfeiture rate and recognizes expense only for those awards which are ultimately expected-to-vest shares. If the actual forfeiture rate is materially different from the Company's estimate, the recorded stock-based compensation expense could be different. ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Concentration of Credit Risk — No customer accounted for more than 10% of net revenue for the year ended December 31, 2016. One customer accounted for 14% of net revenue for the year ended December 31, 2015. No customer accounted for more than 10% of the Company's accounts receivable balance at December 31, 2016 or December 31, 2015. The Company does not require collateral or other security to support accounts receivable. To reduce risk, the Company's management performs ongoing credit evaluations of its customers' financial condition. The Company maintains allowances for potential credit losses in its consolidated financial statements.

Net Loss Per Share — Basic and diluted net loss per share is based upon the weighted average number of common shares outstanding during the period. Diluted net loss per share is based upon the weighted average number of common shares and dilutive-potential common share equivalents outstanding during the period, if applicable. Dilutive-potential common share equivalents are excluded from the computation of net loss per share in the loss periods as their effect would be antidilutive. As the Company has incurred losses from continuing operations during each of the last two fiscal years, shares issuable pursuant to equity awards are excluded from the computation of diluted net loss per share in the accompanying consolidated statements of operations as their effect is anti-dilutive.

Comprehensive Loss — Comprehensive loss for the years ended December 31, 2016 and 2015 has been disclosed within the consolidated statements of comprehensive loss. Other accumulated comprehensive loss includes net foreign currency translation adjustments which are excluded from consolidated net loss.

Foreign Currency Translation and Transactions — The functional currencies of the Company's foreign subsidiaries are the local currencies, except for the Singapore subsidiary, which uses the U.S. dollar as its functional currency. For those subsidiaries whose functional currency is the local currency, the Company translates assets and liabilities to U.S. dollars using period-end exchange rates and translates revenues and expenses using average exchange rates during the period. Exchange gains and losses arising from translation of foreign entity financial statements are included as a component of other comprehensive loss and gains and losses from transactions denominated in currencies other than the functional currencies of the Company are included in the Company's consolidated statements of operations. The Company recognized currency gains of less than \$0.1 million in 2016 and currency losses of \$1.2 million in 2015.

#### **Recent Accounting Pronouncements**

In March 2016, the FASB issued Accounting Standards Update ("ASU") 2016-09, Compensation – Stock Compensation, which provides guidance to simplify several aspects of accounting for share-based payment transactions, including the accounting for income taxes, forfeitures, statutory tax withholding requirements, as well as classification in the statement of cash flows. The guidance is effective for reporting periods beginning after December 15, 2016; however, early adoption is permitted. The Company is currently evaluating the impact of the adoption of this guidance will have on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases ("ASU 2016-02"), which amends accounting for leases. Under the new guidance, a lessee will recognize assets and liabilities but will recognize expenses similar to current lease accounting. The guidance is effective for reporting periods beginning after December 15, 2018; however early adoption is permitted. The new guidance must be adopted using a modified retrospective approach to each prior reporting period presented with various optional practical expedients. The Company is currently evaluating the impact of the adoption of this guidance will have on its consolidated financial statements.

In April 2015, the FASB issued ASU 2015-03, Interest – Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs ("ASU 2015-03"). The amendments in this ASU require that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the amendments in this ASU. The amendments are effective for financial statements issued for fiscal years beginning after December 15, 2015. The Company adopted this guidance as of January 1, 2016. The new guidance has been applied on a retrospective basis, wherein the consolidated balance sheet of December 31, 2015 has been retrospectively adjusted to reflect the effects of applying the new guidance. As a result of the change to the December 31, 2015 consolidated balance sheet, deferred debt issuance costs included in other assets and long-term financial liabilities decreased by \$0.4 million. After the retrospective application to the balance sheet at December 31, 2015, subsequent amortization of the deferred debt issuance costs results in an increase to long-term debt.

In August 2014, the FASB issued ASU No. 2014-15, Disclosure of Uncertainties About an Entity's Ability to Continue as a Going Concern, ("ASU 2014-15"), which requires management to perform interim and annual assessments on whether there are conditions or events that raise substantial doubt about the entity's ability to continue as a going concern within one year of the date the financial statements are issued and to provide related disclosures, if required. The amendments in ASU 2014-15 are effective for the annual period ending after December 15, 2016, and for annual and interim periods thereafter. The adoption of ASU 2014-15 had no impact on the Company's consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09 Revenue from Contracts with Customers ("ASU 2014-09"), which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration to which an entity expects to be entitled for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, more judgment and estimates may be required within the revenue recognition process than are required under existing U.S. GAAP. In August 2015, the FASB issued ASU 2015-14, Revenue From Contracts With Customers (Topic 606) ("ASU 2015-14"), which defers

the effective date of ASU 2014-09 by one year to annual periods beginning after December 15, 2017, including interim reporting periods within that reporting period. Early adoption is permitted only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period. The new guidance is effective for the Company beginning January 1, 2018. The Company is currently evaluating the method and impact that ASU 2014-09 will have on its consolidated financial statements.

#### 2. Fair Value Measurements

The Company determines the fair values of its financial instruments based on a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The classification of a financial asset or liability within the hierarchy is based upon the lowest level input that is significant to the fair value measurement. Under ASC Topic 820, Fair Value Measurement and Disclosures ("ASC 820"), the fair value hierarchy prioritizes the inputs into three levels that may be used to measure fair value:

- Level 1 Quoted prices (unadjusted) for identical assets and liabilities in active markets;
- Level 2 Inputs other than quoted prices in active markets for identical assets and liabilities that are observable either directly or indirectly; and
- Level 3 Unobservable inputs.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

As of December 31, 2016 and 2015, there were no assets that are measured and recognized at fair value on a recurring basis. There were no cash equivalents as of December 31, 2016 and 2015.

The Company's only liability measured at fair value on a recurring basis was the contingent consideration related to the acquisition of idOnDemand, Inc. ("idOnDemand"). The sellers of idOnDemand (the "Selling Shareholders") were eligible to receive limited earn-out payments ("Earn-out Consideration") in the form of shares of the Company's common stock subject to certain lock-up periods under the terms of the Stock Purchase Agreement dated April 29, 2011 between the Company and the Selling Shareholders of idOnDemand (the "SPA"). The Company recorded an earn-out obligation of \$3.51 million as of December 31, 2014. The Earn-out Consideration liability of \$3.51 million was settled during the quarter ended June 30, 2015 by the issuance of common stock to the Selling Shareholders, including the Company's former Chief Executive Officer and former Chief Financial Officer.

|  | Fair Value<br>Measurements | 3 |
|--|----------------------------|---|
|  | (Level 3)                  |   |
|  | Earn-out                   |   |
| (in thousands)                                   | Liability                  |   |
| Balance at December 31, 2014                     | \$ 3,510                   |   |
| Remeasurement of obligation                      | _                          |   |
| Issuance of shares to settle earn-out obligation | (3,510                     | ) |
| Balance at December 31, 2015                     | \$ —                       |   |
| Remeasurement of obligation                      | _                          |   |
| Balance at December 31, 2016                     | \$ —                       |   |

Assets and Liabilities Measured at Fair Value on a Non-recurring Basis

Certain of the Company's assets, including intangible assets, goodwill, and privately-held investments, are measured at fair value on a nonrecurring basis if impairment is indicated. Purchased intangible assets are measured at fair value primarily using discounted cash flow projections. For additional discussion of measurement criteria used in evaluating potential impairment involving goodwill and intangible assets, refer to Note 5, Goodwill and Intangible Assets.

Privately-held investments, which are normally carried at cost, are measured at fair value due to events and circumstances that the Company identified as significantly impacting the fair value of investments. The Company estimates the fair value of its privately-held investments using an analysis of the financial condition and near-term prospects of the investee, including recent financing activities and the investee's capital structure.

As of December 31, 2016 and 2015, the Company had \$0.3 million of privately-held investments measured at fair value on a nonrecurring basis which were classified as Level 3 assets due to the absence of quoted market prices and inherent lack of liquidity.

The Company reviews its investments to identify and evaluate investments that have an indication of possible impairment. The Company adjusts the carrying value for its privately-held investments for any impairment if the fair value is less than the carrying value of the respective assets on an other-than-temporary basis. The amount of privately-held investments is included in other assets in the accompanying consolidated balance sheets.

As of December 31, 2016 and 2015, there were no liabilities that are measured and recognized at fair value on a non-recurring basis.

Assets and Liabilities Not Measured at Fair Value

The carrying amounts of the Company's accounts receivable, prepaid expenses and other current assets, accounts payable, financial liabilities and other accrued liabilities approximate fair value due to their short maturities.

#### 3. Stockholders' Equity

#### Preferred Stock

The Company is authorized to issue 10,000,000 shares of preferred stock, 40,000 of which have been designated as Series A Participating Preferred Stock, par value \$0.001 per share. No shares of the Company's preferred stock, including the Series A Participating Preferred Stock, were outstanding as of December 31, 2016 and 2015. The Company's board of directors may from time to time, without further action by the Company's stockholders, direct the issuance of shares of preferred stock in series and may, at the time of issuance, determine the rights, preferences and limitations of each series, including voting rights, dividend rights and redemption and liquidation preferences. Satisfaction of any dividend preferences of outstanding shares of preferred stock would reduce the amount of funds available for the payment of dividends on shares of the Company's common stock. Holders of shares of preferred stock may be entitled to receive a preference payment in the event of any liquidation, dissolution or winding-up of the Company before any payment is made to the holders of shares of the Company's common stock. Upon the affirmative vote of the Board, without stockholder approval, the Company may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of its common stock.

#### Common Stock Warrants

In connection with the Company's entry into a consulting agreement, the Company issued a consultant a warrant to purchase up to 85,000 shares of the Company's common stock at a per share exercise price of \$10.70 (the "Consultant Warrant"). One fourth of the shares under the warrant are exercisable for cash three months from the date the Consultant Warrant was issued and quarterly thereafter. The Consultant Warrant expires on August 13, 2019. In the event of an acquisition of the Company, the Consultant Warrant shall terminate and no longer be exercisable as of the closing of the acquisition. As of December 31, 2016, the Consultant Warrant has not been exercised.

In connection with the Company's entry into a credit agreement with Opus Bank ("Opus") as discussed in Note 7, Financial Liabilities, the Company issued Opus a warrant to purchase up to 100,000 shares of the Company's common stock at a per share exercise price of \$9.90 (the "Opus Warrant"). On March 31, 2016, the Company entered into a third amendment to its Credit Agreement increasing the number of shares of common stock underlying the warrant from 100,000 to 200,000 shares and decreasing the exercise price from \$9.90 to \$2.19 per share subject to modification. The Company also agreed to issue new warrants to purchase 100,000 shares of common stock in the event that the

outstanding principal balance of the Company's loans with Opus exceeds specified thresholds on each of September 30, 2016, December 31, 2016 and March 31, 2017. The terms of any new warrants issued will be identical to those of the existing warrant, except that each new warrant issued will be exercisable for 100,000 shares and have an exercise price equal to the average closing price of the Company's common stock for the five trading days ending on the last day of the quarter with respect to which the new warrant is issued. In addition, the existing registration rights agreement was amended to include the new warrants and change the circumstances under which the Company must register shares underlying the warrants issued to Opus (the "Amended Rights Agreement"). The Opus Warrant is immediately exercisable for cash or by net exercise and expires on March 31, 2019. The shares issuable upon exercise of the Opus Warrant and new Opus warrants, if any, are to be registered at the request of Opus pursuant to a Registration Rights Agreement, dated March 31, 2014, as amended by Amendment No. 1 to the Registration Rights Agreement, dated March 31, 2016, between the Company and Opus. As of December 31, 2016, the Opus Warrant had not been exercised.

On September 30, 2016, the Company's outstanding principal threshold, as required in its Credit Agreement, as amended, was not attained. As a result, the Company issued a new warrant ("New Opus Warrant #1") to purchase 100,000 shares of common stock at a per share exercise price of \$2.22 per share to Opus. The New Opus Warrant #1 is immediately exercisable for cash or by net exercise and expires on September 30, 2021. As of December 31, 2016, the New Opus Warrant #1 had not been exercised.

On December 31, 2016, the Company's outstanding principal threshold, as required in its Credit Agreement, as amended, was not attained. As a result, the Company issued a new warrant ("New Opus Warrant #2") to purchase 100,000 shares of common stock at a per share exercise price of \$3.61 per share to Opus. The New Opus Warrant #2 is immediately exercisable for cash or by net exercise and expires on December 31, 2021. As of December 31, 2016, the New Opus Warrant #2 had not been exercised. Subsequent to December 31, 2016, the Opus Warrant, the new Opus Warrant #1 and New Opus Warrant #2 were cancelled. See Note 14, Subsequent Events for more information.

On August 14, 2013, in a private placement, the Company issued 834,847 shares of its common stock at a price of \$8.50 per share and warrants to purchase an additional 834,847 shares of its common stock with an exercise price of \$10.00 per share (the "2013 Private Placement Warrants") to accredited and other qualified investors (the "Investors"). The 2013 Private Placement Warrants have a term of four years and are exercisable beginning six months following the date of issuance. In addition, the placement agent was issued warrants to purchase 100,000 shares of common stock at an exercise price of \$10.00 per share as compensation. Subsequent to issuance, warrants to purchase an aggregate of 747,969 shares were exercised. The number of shares issuable upon exercise of the 2013 Private Placement Warrants is subject to adjustment for any stock dividends, stock splits or distributions by the Company, or upon any merger or consolidation or sale of assets of the Company, tender or exchange offer for the Company's common stock, or a reclassification of the Company's common stock. As of December 31, 2016, 186,878 warrants had not been exercised.

Below is a summary of outstanding warrants issued by the Company as of December 31, 2016:

|                                 | Number<br>of Shares<br>Issuable<br>Upon | Weighted<br>Average<br>Exercise |                    |                    |
|---------------------------------|---|---------------------------------|--------------------|--------------------|
| Warrant Type                    | Exercise                                | Price                           | Issue Date         | Expiration Date    |
| Consultant Warrant              | 85,000                                  | \$ 10.70                        | August 13, 2014    | August 13, 2019    |
| Opus Warrant                    | 200,000                                 | 2.19                            | March 31, 2014     | March 31, 2019     |
| New Opus Warrant #1             | 100,000                                 | 2.22                            | September 30, 2016 | September 30, 2021 |
| New Opus Warrant #2             | 100,000                                 | 3.61                            | December 31, 2016  | December 31, 2021  |
| 2013 Private Placement Warrants | 186,878                                 | 10.00                           | August 14, 2013    | August 14, 2017    |
| Total                           | 671,878                                 |                                 | -                  | -                  |

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

The Company has various stock-based compensation plans to attract, motivate, retain and reward employees, directors and consultants by providing its Board or a committee of the Board the discretion to award equity incentives to these persons. The Company's stock-based compensation plans consist of the Director Option Plan, the 1997 Stock Option Plan, the 2000 Stock Option Plan, 2007 Stock Option Plan (the "2007 Plan"), the 2010 Bonus and Incentive Plan (the "2010 Plan") and the 2011 Incentive Compensation Plan (the "2011 Plan"), as amended.

#### Stock Bonus and Incentive Plans

In June 2010, the Company's stockholders approved the 2010 Plan which granted cash and equity-based awards to executive officers, directors, and other key employees as designated by the Compensation Committee of the Board. An aggregate of 300,000 shares of the Company's common stock was reserved for issuance under the 2010 Plan as

equity-based awards, including shares, nonqualified stock options, restricted stock or deferred stock awards. These awards provide the Company's executive officers, directors, and key employees with the opportunity to earn shares of common stock depending on the extent to which certain performance goals are met. Since the adoption of the 2011 Plan (described below), the Company utilizes shares from the 2010 Plan only for performance-based awards to participants and all equity awards granted under the 2010 Plan are issued pursuant to the 2011 Plan.

On June 6, 2011, the Company's stockholders approved the 2011 Plan, which is administered by the Compensation Committee of the Board. The 2011 Plan provides that stock options, stock units, restricted shares, and stock appreciation rights may be granted to executive officers, directors, consultants, and other key employees. The Company reserved 400,000 shares of common stock under the 2011 Plan, plus 459,956 shares of common stock that remained available for delivery under the 2007 Plan and the 2010 Plan as of June 6, 2011. In aggregate, as of June 6, 2011, 859,956 shares were available for future grants under the 2011 Plan, including shares rolled over from 2007 Plan and 2010 Plan. Subsequent to June 6, 2011 through December 31, 2015, the number of shares of common stock authorized for issuance under the 2011 Plan had been increased by 1.0 million shares. On May 12, 2016, the Company's stockholders approved an amendment and restatement of the 2011 Plan to, among other things, increase the number of shares of common stock authorized for issuance by 2.0 million shares and extend the term of the 2011 Plan.

#### Stock Option Plans

The Company's stock option plans are generally time-based and expire seven to ten years from the date of grant. Vesting varies, with some grants vesting 25% each year over four years; some vesting 25% after one year and monthly thereafter over three years; some vesting 100% on the date of grant; some vesting 1/12<sup>th</sup> per month over one year; some vesting 100% after one year; and some vesting monthly over four years. The Director Option Plan and 1997 Stock Option Plan both expired in March 2007. The 2000 Stock Option Plan expired in December 2010 and as noted above, the 2007 Plan was discontinued in June 2011 in connection with the approval of the 2011 Plan. As a result, options will no longer be granted under any of these plans except the 2011 Plan.

As of December 31, 2016, an aggregate of 7,379 options were outstanding under the Director Option Plan and 1997 Stock Option Plan, no options were outstanding under the 2000 Stock Option Plan, 6,741 options were outstanding under the 2007 Plan, and 818,821 options were outstanding under the 2011 Plan. These outstanding options remain exercisable in accordance with the terms of the original grant agreements under the respective plans.

A summary of activity for the Company's stock option plans for the year ended December 31, 2016 follows:

|                              |             |                  | Weighted Average |                      |
|------------------------------|-------------|------------------|------------------|----------------------|
|                              |             |                  | Remaining        |                      |
|                              | Number      | Average Exercise | Contractual Term | Average<br>Intrinsic |
|                              | Outstanding | Price per Share  | (Years)          | Value                |
| Balance at December 31, 2015 | 781,804     | \$ 11.48         |                  | \$ —                 |
| Granted                      | 444,460     | 4.36             |                  |                      |
| Cancelled or Expired         | (393,323)   | 12.15            |                  |                      |
| Exercised                    |             | _                |                  |                      |
| Balance at December 31, 2016 |             |                  |                  |                      |