OSI SYSTEMS INC Form 10-K August 28, 2018

Use these links to rapidly review the document

<u>TABLE OF CONTENTS</u>

OSI SYSTEMS, INC. INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Table of Contents

(Mark One)

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

#### **FORM 10-K**

ý	ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	For the fiscal year ended June 30, 2018
	OR
o	TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	For the transition period from to Commission File Number 000-23125

# OSI SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 33-0238801 (I.R.S. Employer Identification No.)

12525 Chadron Avenue, Hawthorne, California

90250

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code: (310) 978-0516

Securities registered pursuant to Section 12(b) of the Act.

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

Title of each class

Name of each exchange on which registered

Common Stock, \$0.001 par value

The NASDAQ Global Select Market

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

1

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

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

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: ý No o

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: ý No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

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

Large accelerated filer ý

Accelerated filer o

Non-accelerated filer o

(Do not check if a smaller reporting company)

Smaller reporting company o Emerging growth company o

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

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

The aggregate market value of the registrant's voting and non-voting Common Stock held by non-affiliates computed by reference to the price at which the Common Stock was last sold on December 31, 2017, the last business day of the registrant's most recently completed second fiscal quarter, was \$1,163,504,202. The number of shares outstanding of the registrant's Common Stock as of August 24, 2018 was 18,093,373.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement relating to the 2018 annual meeting of stockholders are incorporated by reference into Part III
The proxy statement will be filed by the registrant with the Securities and Exchange Commission not later than 120 days after the end of the
registrant's fiscal year.

### Table of Contents

#### TABLE OF CONTENTS

Item PART I	Description	Page
Item 1.  Item 1A.  Item 1B.  Item 2.  Item 3.  Item 4.  PART II	Risk Factors Unresolved Staff Comments Properties Legal Proceedings Mine Safety Disclosures	1 23 47 47 48 49
Item 5.  Item 6. Item 7. Item 7A. Item 8. Item 9. Item 9A. Item 9B. PART III	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities  Selected Financial Data  Management's Discussion and Analysis of Financial Condition and Results of Operations  Quantitative and Qualitative Disclosures About Market Risk  Financial Statements and Supplementary Data  Changes in and Disagreements With Accountants on Accounting and Financial Disclosure  Controls and Procedures  Other Information	50 53 54 67 68 68 68 69
Item 10.  Item 11.  Item 12.  Item 13.  Item 14.  PART IV	Directors, Executive Officers and Corporate Governance  Executive Compensation Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters Certain Relationships and Related Transactions, and Director Independence Principal Accounting Fees and Services	70 70 70 70 70 70
<u>Item 15.</u>	Exhibits, Financial Statement Schedules  Signatures	7 <u>1</u> <u>II-1</u>

**Table of Contents** 

#### PART I

#### Forward-Looking Statements

This report contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements relate to current expectations, beliefs, and projections concerning matters that are not historical facts. Words such as "project," "believe," "anticipate," "plan," "expect," "intend," "may," "should," "will," "would," and similar words and expressions are intended to identify forward-looking statements. The expectations, beliefs, and projections reflected in the forward-looking statements may prove to be inaccurate, and actual results may differ materially from those reflected in such forward-looking statements. Important factors that could cause our actual results to differ materially from those expectations are disclosed in this report, including, without limitation, those described in Part I, Item 1, "Business," Part I, Item 1A, "Risk Factors" and Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" as well as elsewhere in this report and other documents filed by us from time to time with the Securities and Exchange Commission ("SEC"). Such factors, of course, do not include all factors that might affect our business and financial condition. Although we believe that the assumptions upon which our forward-looking statements are based are reasonable, such assumptions could prove to be inaccurate and actual results could differ materially from those expressed in or implied by the forward-looking statements. For example, we could be exposed to a variety of negative consequences as a result of delays related to the award of domestic and international contracts; failure to secure the renewal of key customer contracts; delays in customer programs; delays in revenue recognition related to the timing of customer acceptance; unanticipated impacts of sequestration and other U.S. Government budget control provisions; changes in domestic and foreign government spending, budgetary, procurement and trade policies adverse to our businesses; global economic uncertainty; unfavorable currency exchange rate fluctuations; effect of changes in tax legislation; market acceptance of our new and existing technologies, products and services; our ability to win new business and convert any orders received to sales within the fiscal year; enforcement actions in respect of any noncompliance with laws and regulations including export control and environmental regulations and the matters that are the subject of some or all of our ongoing investigations and compliance reviews, contract and regulatory compliance matters, and actions, if brought, resulting in judgments, settlements, fines, injunctions, debarment or penalties; as well as other risks and uncertainties, including but not limited to those detailed herein and from time to time in our other SEC filings, which could have a material and adverse impact on our business, financial condition and results of operation. All forward-looking statements contained in this report are qualified in their entirety by this statement. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties, and assumptions, the future events and trends discussed in this Annual Report on Form 10-K may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Investors should not place undue reliance on forward-looking statements as a prediction of actual results. We undertake no obligation other than as may be required under securities laws to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

#### ITEM 1. BUSINESS

#### General

OSI Systems, Inc., together with our subsidiaries, is a vertically integrated designer and manufacturer of specialized electronic systems and components for critical applications. We sell our products and provide related services in diversified markets, including homeland security, healthcare, defense and aerospace. Our company was originally incorporated in 1987 in California. In March 2010, we reincorporated our company in the State of Delaware. Our principal office is located at 12525 Chadron Avenue, Hawthorne, California 90250.

1

#### **Table of Contents**

We have three operating divisions: (a) Security, providing security and inspection systems, turnkey security screening solutions and related services; (b) Healthcare, providing patient monitoring, diagnostic cardiology, and anesthesia delivery and ventilation systems; and (c) Optoelectronics and Manufacturing, providing specialized electronic components and electronic manufacturing services for the Security and Healthcare divisions, as well as to external original equipment manufacturer ("OEM") customers and end users for applications in the defense, aerospace, medical and industrial markets, among others.

Through our Security division, we provide security screening products and services globally under the "Rapiscan® Systems" and "AS&E®" trade names. Our Security products fall into the following categories: baggage and parcel inspection; cargo and vehicle inspection; hold (checked) baggage screening; people screening; radiation detection; and explosive and narcotics trace detection. In addition to these products, we provide site design, installation, training and technical support services to our customers. We also provide under the "S2®" trade name turnkey security screening solutions, which can include the construction, staffing and long-term operation of security screening checkpoints, including ports and borders, for our customers.

Through our Healthcare division, we design, manufacture, market and service patient monitoring, diagnostic cardiology, and anesthesia delivery and ventilation systems globally to end users and provide related supplies and accessories under the "Spacelabs®" trade name. These products are used by care providers in critical care, emergency and perioperative areas within hospitals as well as physicians' offices, medical clinics and ambulatory surgery centers.

Through our Optoelectronics and Manufacturing division, we design, manufacture and market optoelectronic devices and flex circuits and provide electronics manufacturing services globally for use in a broad range of applications, including defense and aerospace, X-ray security inspection systems and medical imaging, chemistry analysis and diagnostics instruments, telecommunications, scanners and industrial automations, automotive diagnostic systems, IoT and wearable consumer products. We sell our optoelectronic devices primarily under "OSI Optoelectronics," "OSI LaserDiode," and "OSI Laserscan" trade names and perform our electronics manufacturing services primarily under the "OSI Electronics," "APlus Products," "Altaflex," and "PFC" trade names. We provide our optoelectronic devices and electronics manufacturing services to OEM customers and end users, as well as to our own Security and Healthcare divisions.

In fiscal 2018, revenues from the Security division were \$690.0 million, or approximately 63% of our revenues; revenues from the Healthcare division amounted to \$189.4 million, or approximately 18% of our revenues; and third-party revenues from the Optoelectronics and Manufacturing division were \$209.9 million, or approximately 19% of our revenues. See note 14 to the consolidated financial statements for additional financial information concerning reporting segments and geographic areas.

#### **Recent Developments**

Acquisition of Optoelectronics Solutions Business. On July 31, 2018, we (through our Optoelectronics and Manufacturing division) acquired an optoelectronics solutions business for \$17.5 million, plus up to \$1 million in potential earnout consideration. The acquisition was financed with cash on hand and borrowings under our existing revolving bank line of credit.

#### **Industry Overview**

We sell our security and inspection systems and healthcare products primarily to end-users, while we design and manufacture our optoelectronic devices and value-added subsystems, and provide electronics manufacturing services primarily for OEM customers.

#### **Table of Contents**

*Security.* A variety of technologies are currently used globally in security and inspection applications, including transmission and backscatter X-ray, 3-D and computed tomography, nuclear radiation detection, metal detection, radar and trace detection. We believe that the market for security and inspection products will continue to be affected by the threat of terrorist incidents, drug trafficking, gun violence, and by new government mandates and appropriations for security and inspection products in the United States and internationally.

As a result of terrorist attacks worldwide, security and inspection products have increasingly been used at a wide range of facilities other than airports, such as border crossings, railways, seaports, cruise line terminals, freight forwarding operations, sporting venues, government and military installations, and nuclear facilities. The U.S. Department of Homeland Security has undertaken numerous initiatives to prevent terrorists from entering the country, hijacking airliners, and obtaining and trafficking in weapons of mass destruction and their components, to secure sensitive U.S. technologies and to identify and screen high-risk cargo before it is loaded onto airlines and ships. These initiatives, such as the Customs-Trade Partnership Against Terrorism, the U.S. Transportation Security Administration's Air Cargo Screening Mandate and the U.S. Customs and Border Protection Container Security Initiative, have resulted in an increased demand for security and inspection products.

Certain of these government sponsored initiatives in the United States have also stimulated security programs in other areas of the world in part because the U.S. initiatives call on other nations to bolster their port security strategies, including acquiring or improving their security and inspection equipment and screening operations. The international market for non-intrusive inspection equipment and related services, therefore, continues to expand as countries that ship goods directly to the United States participate in such programs and as they choose to procure and operate equipment in order to secure their own borders, transportation networks, facilities and other venues.

Congress has passed legislation and continues to support provisions that call for the inspection of international maritime cargo destined for the United States, domestic civil aviation cargo, and radiological and nuclear threats in cargo entering the United States. Certain of our cargo and vehicle inspection systems are currently being used internationally and by the U.S. Government to comply with these standards.

Additionally, the U.S. Department of Homeland Security requires the screening of all cargo carried on passenger airlines in the United States. Several of our hold (checked) baggage and cargo screening systems have been approved by the U.S. Department of Homeland Security's Transportation Security Administration for this purpose and are being procured and used by freight forwarders, airlines, transportation companies and other businesses to fulfill their compliance requirements.

Furthermore, the U.S. Department of Homeland Security's Science and Technology Directorate, Transportation Security Administration and Domestic Nuclear Detection Office have supported the development of new security inspection technologies and products. Our Security division participates in a number of such research and development efforts, including projects to develop new technologies for radiation detection, nuclear materials detection, border security, and aviation screening. Our Security division is an industrial partner in the DHS Center of Excellence ALERT (Awareness and Localization of Explosives-Related Threats) and works with academia, national laboratories, and other vendors on research and development through this and other agreements. The Science and Technology Directorate has also initiated programs for the development of technologies capable of protecting highways, railways and waterways from terrorist attack.

In addition, the U.S. Department of Defense has invested heavily in technologies and services that screen would-be attackers before they are able to harm U.S. and allied forces. These technologies include products that can screen personnel, vehicles and other containers for the presence of explosives, improvised explosive devices (IEDs), weapons and other contraband.

#### **Table of Contents**

The U.S. Department of Energy (DOE) and other U.S. federal agencies continue to support the Nuclear Smuggling and Detection Deterrence (NSDD) Program and Megaports programs to help prevent the proliferation and trafficking of radioactive and nuclear materials.

Similar initiatives and new regulations promulgated by international organizations have resulted in a growing global demand for airline, cargo, port and border security and inspection technologies. For example, the European Commission has issued uniform performance standards for systems that screen baggage and people at aviation checkpoints and air cargo, as well as new directives related to maritime security.

*Healthcare.* Healthcare has been, and we believe will continue to be, a growing economic sector throughout much of the world. Developing countries in Latin America are expected to continue to build healthcare infrastructure to serve expanding middle class populations. In developed areas, including the United States and Europe, aging populations and extended life expectancy are projected to fuel growth in healthcare for the foreseeable future.

While we believe that the healthcare industry will continue to grow throughout much of the world, many factors are forcing healthcare providers to do more with less, including stricter government requirements affecting staffing and accountability, shrinking reimbursements from health insurance organizations, and uncertainty around potential U.S. healthcare legislation. Our customers expect clinical value, economic value, and clinical decision support. Positioning our current healthcare products to demonstrate the competitive value in total cost of ownership will be increasingly important in this environment. At the same time, the widespread introduction of mobile devices into the healthcare environment is creating an emerging demand for patient data acquisition and distribution. Our Healthcare division designs, manufactures and markets devices and software that respond to these factors, helping hospitals reduce costs, make better-informed clinical decisions, and more fully utilize resources.

We are a global manufacturer and distributor of patient monitoring, diagnostic cardiology and clinical networking solutions for use in hospitals, medical clinics and physician offices. We design, manufacture and market patient monitoring solutions for critical, perinatal, sub-acute and perioperative care areas of the hospital, wired and wireless networks and ambulatory blood pressure monitors, all aimed at providing caregivers with timely patient information. Our diagnostic cardiology systems include Holter recorders and analyzers, ambulatory blood pressure monitors, electrocardiography (ECG) devices, stress event data management systems and related software and services. We also currently manufacture and distribute anesthesia delivery systems and ventilators, which we sell primarily to hospitals for use in operating rooms and anesthesia induction areas.

Optoelectronics and Manufacturing. We believe that continued advances in technology and reductions in the cost of key components of optoelectronic systems, including computer processing power and memory, have broadened the market by enabling the use of optoelectronic devices in a greater number of applications. In addition, we see a trend among OEMs to increasingly outsource the design and manufacture of optoelectronic devices as well as value-added subsystems to fully-integrated, independent manufacturers, like us, that may have greater specialization, broader expertise and more flexibility to respond to short cycle times and quicker market expectations.

Our optoelectronic devices are used in a wide variety of applications for diversified markets including the aerospace and defense, avionics, medical imaging and diagnostics, biochemistry analysis, pharmaceutical, nanotechnology, telecommunications, construction and homeland security markets. Medical applications for our devices include diagnostic and imaging products, patient monitoring equipment, and glucose monitors. Aerospace and defense applications for our devices include satellite navigation sensors, laser guided munitions systems, range finders, weapons simulation systems, computer peripherals and other applications that require the conversion of optical signals into electronic signals. Homeland security applications for our devices include X-ray based and other detection systems. Our optoelectronic devices and value-added subsystems are also used in a wide variety of measurement control, monitoring and industrial applications and are key components in telecommunications

#### **Table of Contents**

technologies. We also offer electronics manufacturing services to our optoelectronics customers, as well as to our Security and Healthcare divisions. We offer full turnkey and printed circuit board assembly, cable and harness assembly, liquid crystal displays and box-build manufacturing services, in which we provide product design and development, supply chain management, and production manufacturing services. In addition, our flexible circuit products and services offer design expertise, manufacturing capabilities, and assembly of flexible and rigid circuit boards for applications in the industrial, medical, military, and consumer markets.

#### **Growth Strategy**

We believe that one of our primary competitive strengths is our expertise in the cost-effective design and manufacture of specialized electronic systems and components for critical applications. As a result, we have leveraged, and intend to continue to leverage, such expertise and capacity to gain price, performance and agility advantages over our competitors in the security, healthcare and optoelectronics fields, and to translate such advantages into profitable growth in those fields. At the same time, we continually seek to identify new markets in which our core expertise and capacity will provide us with competitive advantages. Key elements of this strategy include:

Capitalizing on Global Reach. We operate from locations throughout the world. We view our international operations as providing an important strategic advantage over competitors. First, our international manufacturing facilities allow us to take advantage of competitive labor rates and favorable tax regulations in order to be a low cost producer. Second, our international offices strengthen our sales and marketing efforts and our ability to service and repair our systems by providing direct access to growing markets and to our existing international customer base. Third, our international manufacturing locations allow us to reduce delivery times to our global customer base. In the future, we intend to continue to enhance our international manufacturing and sales capabilities.

Capitalizing on Vertical Integration. Our vertical integration provides several advantages in each of our divisions. These advantages include reduced manufacturing and delivery times, lower costs due to our access to competitive international labor markets and direct sourcing of raw materials. We also believe that we offer significant added value to our customers by providing a full range of vertically-integrated services, including component design and customization, subsystem concept design and application engineering, product prototyping and development, efficient pre-production and short-run and high volume manufacturing. We believe that our vertical integration differentiates us from many of our competitors and provides value to our customers who can rely on us to be an integrated supplier. We intend to continue to leverage our vertical integration to create greater value for our customers in the design and manufacture of our products.

Capitalizing on the Market for Security and Inspection Systems. Attentiveness to terrorist and other security threats may continue to drive the market for security and inspection systems in transportation security and also at ports and border crossings, government installations, military facilities and public event venues. The trend toward increased screening of goods entering and departing from ports and borders has resulted, and may continue to result in, the growth in the market for cargo inspection systems and turnkey security screening services that are capable of screening shipping containers for contraband and assisting customs officials in the verification of shipping manifests. Package and cargo screening by freight forwarders, airlines and air cargo companies represents a growing sector, as regulations in the United States and Europe have continued to support increased screening of air cargo shipments. We intend to capitalize on opportunities to replace, service and upgrade existing security installations, and to offer turnkey security screening solutions in which we may construct, staff and/or operate on a long-term basis security screening checkpoints for our customers. Finally, we also intend to continue to develop new security and inspection products and technologies, such as our proprietary real time tomography systems, and to enhance our current product and service offerings through internal research and development and selective acquisitions.

#### **Table of Contents**

Improving and Complementing Existing Medical Technologies. We develop and market patient monitoring systems and diagnostic cardiology products, and associated supplies and accessories. We are able to market and sell many of our product offerings through shared sales channels and distribution networks. Our efforts to develop new products and improve our existing medical technologies are focused on the needs of care providers and their patients. Our efforts to improve existing diagnostic cardiology technologies will also continue to concentrate on providing products that are flexible and intuitive to use so that clinicians can deliver accurate, precise, reliable and cost-effective care. We focus on enabling hospitals to leverage their IT infrastructure at a significant financial savings, providing actionable alarms at the bedside monitor and the central station.

Selectively Entering New Markets. We intend to continue to selectively enter new markets that complement our existing capabilities in the design, development and manufacture of specialized electronic systems and components for critical applications such as security inspection, patient monitoring and diagnostic cardiology. We believe that by manufacturing products that rely on our existing technological capabilities, we will leverage our integrated design and manufacturing infrastructure to build a larger presence in new markets that present attractive competitive dynamics. We intend to achieve this strategy through internal growth and through selective acquisitions.

Acquiring New Technologies and Companies. Our success depends in part on our ability to continually enhance and broaden our product offerings in response to changing technologies, customer demands and competitive pressures. We have developed expertise in our various lines of business and other areas through internal research and development efforts, as well as through selective acquisitions. We expect to continue to seek acquisition opportunities to broaden our technological expertise and capabilities, lower our manufacturing costs and facilitate our entry into new markets.

#### **Products and Technology**

We design, develop, manufacture and sell products ranging from security and inspection systems to patient monitoring, diagnostic cardiology and anesthesia systems to discrete optoelectronic devices and value-added subsystems.

Security and Inspection Systems. We design, manufacture and market security and inspection systems globally to end users under the "Rapiscan Systems" and "AS&E" trade names. Our Security products are used to inspect baggage, parcels, cargo, people, vehicles and other objects for weapons, explosives, drugs, radioactive and nuclear materials and other contraband. These systems are also used for the safe, accurate and efficient verification of cargo manifests for the purpose of assessing duties and monitoring the export and import of controlled materials. Our Security products fall into the following categories: baggage and parcel inspection; cargo and vehicle inspection; hold (checked) baggage screening; people screening; radiation detection; and explosive and narcotics trace detection. We also offer under the "S2" trade name turnkey security screening services, including the staffing and operation of security screening checkpoints.

As a result of terrorist attacks worldwide, security and inspection products have increasingly been used at a wide range of facilities other than airports, such as border crossings, railways, seaports, cruise line terminals, freight forwarding operations, government and military installations and nuclear facilities. As a result of the use of security and inspection products at additional facilities, we have diversified our sales channels for security and inspection products.

Many of our security and inspection systems include dual-energy X-ray technology with computer software enhanced imaging methods to facilitate the detection of materials such as explosives, weapons, narcotics, bulk currency or other contraband. While all X-ray systems produce a two-dimensional image of the contents of the inspected object, the dual-energy X-ray systems also measure the X-ray absorption of the inspected object's contents at two different X-ray energies to determine the atomic number, density and other characteristics of the

#### **Table of Contents**

object's contents. The various organic and inorganic substances in the inspected object appear to operators of the inspection systems in various colors, and this visual information can be used to identify and differentiate the inspected materials. In addition, we offer dual-view X-ray screening systems, now available on many of our systems that allow operators to examine objects from two directions simultaneously, thereby reducing the need for re-scanning of objects and improving the operator's ability to detect threats quickly and effectively. Our baggage and parcel inspection, cargo and vehicle inspection and hold (checked) baggage screening inspection systems range in size from compact mobile systems to large systems comprising entire buildings in which trucks, shipping containers or pallets are inspected. Many of our inspection systems are also designed to be upgradeable to respond to new customer requirements as they emerge or change.

Our cargo and vehicle inspection applications, in which vehicles, cars, trucks, shipping containers, pallets and other large objects can be inspected, are designed in various configurations, including gantry, portal and mobile systems. These products are primarily used to verify the contents of cars, trucks or cargo containers and to detect the presence of contraband, including narcotics, weapons, explosives, radioactive and nuclear materials and other smuggled items. They offer significant improvements over past methods of cargo screening, such as manual searches, as our cargo systems are faster, more thorough and do not subject the cargo to pilferage. Entire shipping containers or trucks containing densely packed goods can be screened rapidly.

Most of our cargo and vehicle inspection systems employ X-ray imaging to non-intrusively inspect objects and present images to an inspector, showing shapes, sizes, locations and relative densities of the contents. These systems utilize transmission imaging technology, backscatter imaging technology, or both technologies. We also manufacture passive radiation detection devices for detecting nuclear threat material utilizing their gamma and neutron signatures. Additionally, we have developed isotope-specific identification algorithms. Many of these systems have been built to meet specific customer inspection requirements.

Our Security division is among the only companies in the market offering inspection systems at a wide range of energy levels. We believe that we offer one of the broadest technology platforms in the baggage and parcel and cargo and vehicle inspection systems industry. Our broad platform permits us to offer customers solutions, which optimize flexibility, performance and cost to meet the customer's unique application requirements.

Our Security division also offers hold (checked) baggage screening systems that are utilized by airports, freight forwarders and other parties responsible for screening baggage and cargo before it is placed in the cargo hold of airplanes. Certain of our currently available systems utilize multiple X-ray beams to provide high-quality images able to discriminate materials and to enable algorithms that assist operators in the detection of explosives and narcotics. Other systems utilize a very large number of distributed X-ray emitters that rapidly capture approximately 1,000 views of a bag and then utilize sophisticated software to reconstruct high resolution images. These systems are designed to meet the high-speed screening and analysis demands of regulators in the United States and European Union. They can be operated in stand-alone mode, where a single operator views the images produced by a single system, or can be networked, allowing operators stationed at a remote computer terminal to monitor multiple systems.

Our Security division also offers people screening products, such as a line of "Metor®" brand walk-through metal detector (WTMD) products for use at security checkpoints at airports, amusement parks, banks, courthouses, government buildings, sports arenas and other venues. We also offer trace detection systems that are designed to detect trace amounts of explosives as well as narcotics. These systems are designed to be used in screening people, cargo, baggage and other items for illicit materials and weapons.

### Table of Contents

The following table sets forth certain information related to the standard security and inspection products that we currently offer. We do, however, also customize our standard products to suit specific applications and customer requirements.

PRODUCT LINE Baggage and Parcel Inspection	PRODUCT NAME / PRODUCT FAMILY Rapiscan® 600 series X-ray systems  AS&E® Gemini®	TECHNOLOGY Dual-energy X-ray  Single and multi-view configuration  Combined dual energy transmission and backscatter	MARKET SEGMENT Checkpoint and customs inspection at airports, prisons, border crossings, government buildings, and postal facilities, critical infrastructure protection at power and chemical plants, water resource sites as well as air cargo screening Checkpoint and air cargo screening at prisons, government buildings and other
Cargo and Vehicle Inspection	Rapiscan® Eagle®	High energy transmission	critical infrastructure protection applications  Inspection of passenger
	AS&E® OmniView® AS&E® Sentry®	X-ray	vehicles, cargo, trucks, and rail cars at airports, border crossings, sea ports and high threat facilities
	AS&E® ZBV® AS&E® Z Portal® AS&E® CarView AS&E® MINI Z®	Flying spot backscatter X-ray and transmission X-ray	
Hold (Checked) Baggage Screening	Rapiscan® RTT®	High-speed, stationary gantry computed tomography explosive detection system (EDS)	Hold baggage and parcel inspection with automatic explosive detection at airports and freight forwarding facilities
People Screening	Metor® series metal detectors	Electromagnetic induction	Checkpoint inspection at airports, border crossings, military checkpoints, stadiums, prisons and government facilities
Radiation Detection	Rapiscan® Radiation Monitors	Gamma and neutron detection of radioactive and nuclear material	Cargo, vehicle, rail car and people screening at airports, border crossings, military checkpoints, stadiums, prisons and government facilities
Trace Detection	Itemiser® DX Itemiser® 4DX Itemiser® 3e MobileTrace® Hardened MobileTrace® EntryScan® 4	IMS based technology desktop, hand-held and walk-though portal explosives and narcotics detection	Checkpoint, hold baggage and cargo inspection at airports, nuclear plants, border crossings, military checkpoints, stadiums, prisons and government facilities

#### Table of Contents

*Patient Monitoring, Diagnostic Cardiology, and Anesthesia Systems.* Our Healthcare division designs, manufactures and markets products globally to end users primarily under the "Spacelabs" trade name.

Spacelabs products include patient monitors for use in perioperative, critical care and emergency care environments with neonatal, pediatric and adult patients. Our patient monitoring systems comprise monitors and central nursing stations connected by wireless or hardwired networks, as well as standalone monitors that enable patient data to be transported physically from one monitor to another as the patient is moved. These systems enable hospital staff to access patient data where and when it is required. In addition, these products are designed with an "open architecture" to interact with hospital information systems. Many of these products allow clinicians to view and control various software applications on the patient monitor's display, eliminating the need for separate computer terminals in the patient's room. Attending nurses can check laboratory results and other reports, enter orders, review protocols and complete medical charting at the patient's bedside.

For electrocardiograph monitoring or multiparameter monitoring of ambulatory patients, we offer a digital telemetry system. The system operates in government-protected bands, which are not used for private land mobile radio, business radio services or broadcast analog or digital television. Spacelabs Intesys® Clinical Suite (ICS) provides a software suite allowing hospitals to leverage their infrastructure to capture all data from the bedside, compact and telemetry monitors. Retrospective data formerly only found at a central station monitor is made available at any PC in the hospital.

Spacelabs has introduced a number of new products, including the Xprezzon® patient monitor, Qube® compact monitor, Qube® Mini monitor with transport capabilities, and Xhibit XC4 which brings additional flexibility to caregivers, enabling central monitoring of patient data in the patient vicinity. We also introduced a new telemetry transmitter, the AriaTele®, with subsequent product additions to enable the AriaTele to broadcast on a number of specialized frequency bands that are prescribed for global healthcare use.

Our Healthcare division also develops cardiac diagnostic systems, including Holter analyzers and recorders. Our PathfinderSL® analysis tool provides simple, actionable Holter reports to any PC, inside or outside the hospital. Our Evo<sup>TM</sup> Holter recorders provide low cost of ownership through, for example, the elimination of disposable batteries, memory cards with no moving parts to maintain and other advances. Our Lifecard® CF Holter recorders are worn by patients for up to seven days in order to capture heart arrhythmias that may occur in a patient only a few times per week. This product is helpful in identifying the presence of atrial fibrillation. Patients that may be experiencing even less frequent heart arrhythmias wear our CardioCall® product, which stays with the patient over several weeks and transmits its findings over the phone to a receiving station in the hospital.

We are also a supplier of ambulatory blood pressure (ABP) monitors which are routinely used by physicians around the world and by clinical research organizations. Many physicians are using ambulatory blood pressure monitoring to detect "white coat" hypertension, a condition in which people experience elevated blood pressure in the doctor's office but not in their daily lives. Ambulatory blood pressure monitoring helps improve diagnostic accuracy and minimize the associated costs of treatment. Spacelabs OnTrak ambulatory blood pressure system has been validated for both pediatric and adult patient types and includes the capability to measure activity correlation with non-invasive blood pressure readings.

Our Sentinel® 10 Cardiology Information Management System is designed to provide an electronic, enterprise-wide scalable system for diagnostic cardiology. Sentinel integrates data from Spacelabs-branded products into a central enterprise-wide database system that can be accessed by care providers and medical facility administrators, thereby providing enhanced workflow and efficiencies. The system's web-based solution enables the secure transfer of data from multiple remote sites.

Our anesthesia delivery and ventilation group designs and manufactures anesthesia delivery systems and ventilators. Our BleaseSirius, BleaseFocus and BleaseGenius anesthesia delivery systems enable us to provide

#### Table of Contents

flexible anesthesia solutions for operating room environments, anesthesia induction areas, day surgery centers, magnetic resonance imaging facilities and other locations where the administration of anesthesia is required.

In addition, many of the capital-intensive products that our Healthcare division sells have supplies and accessories associated with them that can represent annuity revenue opportunities.

The following table sets forth a description of the more significant healthcare products that we currently offer:

PRODUCT LINE
Patient Monitoring and Connectivity

PRODUCT NAME / PRODUCT FAMILY

XPREZZON® Qube® Qube® Mini

Ultraview® DM3 Dual Monitor Intesys® Clinical Suite (ICS)

ICS Xprezz XprezzNet Flexport® Xhibit® Xhibit® XC4 Elance® AriaTele®

Spacelabs® SafeNSound

**Diagnostic Cardiology** 

Ambulatory blood pressure monitors (various)

OnTrak ABP Pathfinder® SL CardioCall® Lifecard® EVO<sup>TM</sup>

CardioExpress® ECG machines CardioDirect® Stress Testing

Systems

Sentinel® Cardiology Data

Management

**Medical Devices and Accessories** 

UltraCheck®, SoftCheck® and

Curve

Blood Pressure Cuffs

Patient Cables and Accessories Fluid Delivery Unifusors MARKET SEGMENT

Hospital care areas, outpatient surgery centers and physician

offices

Hospital cardiology care areas and physician offices

All hospital care areas, outpatient surgery centers and

physician offices

Optoelectronic Devices and Manufacturing Services. Optoelectronic devices generally consist of both active and passive components. Active components sense light of varying wavelengths and convert the light detected into electronic signals, whereas passive components amplify, separate or reflect light. The active components we manufacture consist of silicon, gallium arsenide and indium gallium arsenide photodetectors and light sources. Passive components include lenses, prisms, filters, mirrors and other precision optical products that are used by us in the manufacture of our optoelectronic products or are sold to third parties for use in telescopes, laser printers, copiers, microscopes and other detection and vision equipment. The devices we manufacture are both standard products and products customized for specific applications and are offered either as components or as subsystems. Our optoelectronic products and services are provided primarily under the "OSI Optoelectronics" trade name.

#### **Table of Contents**

In addition to the manufacture of standard and OEM products, we also specialize in designing and manufacturing customized value-added subsystems for use in a wide range of products and equipment. An optoelectronic subsystem typically consists of one or more optoelectronic devices that are combined with other electronic components and packaging for use in an end product. The composition of a subsystem can range from a simple assembly of various optoelectronic devices that are incorporated into other subsystems (for example, a printed circuit board containing our optoelectronic devices) to complete end-products (for example, pulse oximetry equipment).

We also provide electronics design and manufacturing services both in North America, the United Kingdom and in the Asia Pacific region with enhanced, RoHS-compliant, printed circuit board and cable and harness assemblies and box-build manufacturing services utilizing state-of-the-art automated surface mount technology lines. We offer electronics manufacturing services to OEM customers and end users for medical, automotive, defense, aerospace, industrial and consumer applications that do not utilize optoelectronic devices. We also manufacture LCD displays for medical, industrial and consumer electronics applications, and flex circuits and touch panels for OEM customers at the prototype stage. Our electronics manufacturing services are provided primarily under the "OSI Electronics," "APlus Products," "Altaflex," and "PFC" trade names.

We develop, manufacture and sell laser-based remote sensing devices that are used to detect and classify vehicles in toll and traffic management systems under the "OSI Laserscan" and "Autosense" trade names. We offer solid-state laser products for aerospace, defense, telecommunication and medical applications under the "OSI LaserDiode" trade name.

The following table sets forth a description of the more significant standard optoelectronics products that we currently offer. We also customize our standard products to suit specific applications and customer requirements.

PRODUCT LINE Optoelectronic Products	PRODUCT NAME / PRODUCT FAMILY Si and InGaAs Photodiodes and Avalanche Diodes UV and XUV Detector Linear and 2-D Position Sensitive Devices Line and 2D X-Ray Photodectors Optical Switches Solid State Laser Diodes	MARKET SEGMENT Medical diagnostics instrumentation and analytical chemistry, oximetry and blood chemistry, barcode readers, security scanners and inspection systems, lidar and laser range finder, OTDR and test and measurement instruments, laser guided munitions, weapon simulation systems, aircraft gyro navigation sensors, and satellite sun acquisition sensors
Medical Devices and Accessories	Oximetry Sensors and Accessories	Patient monitoring, animal health, and diagnostic medical products
Laser Scanners  Marketa Customers and Applications	Laser Scanners (AS9390, AS615 and AS800 Series)	Laser based scanners for vehicle detections and classifications for electronic toll collection (ETC) and toll and traffic management systems
Markets, Customers and Applications		

Security and Inspection Products. Many security and inspection products were developed in response to civilian airline hijackings. Consequently, certain of our security and inspection products have been and continue to

#### **Table of Contents**

be sold for use at airports. Our security and inspection products are also used for security and customs purposes at locations in addition to airports, such as border crossings, shipping ports, military and other government installations, freight forwarding facilities, high-profile locations such as U.K. House of Parliament, Buckingham Palace, and the Vatican and for high-profile events such as the Olympic Games, and other sporting events. Furthermore, as terrorist attacks continue to occur, overall transportation and travel industry demands have increased, resulting in heightened attention for our security and inspection products. We also provide turnkey security screening solutions, which can include the construction, staffing and long-term operation of security screening locations for our customers.

Our customers include, among many others, the U.S. Customs and Border Protection, U.S. Department of Defense, U.S. Department of State, U.S. Transportation Security Administration and Federal Bureau of Prisons in the United States, as well as Her Majesty's Revenue and Customs and Manchester Airport Group in the United Kingdom, Aeroporto De Paris, Aeroporto De Roma, the Servicio de Administración Tributaria in México, Chek Lap Kok Airport in Hong Kong, DHL, and United Parcel Service.

Our contracts with the U.S. Government are generally subject to renegotiation of profits and termination for convenience at the election of the Government. For the fiscal year ended June 30, 2018, our direct sales to the U.S. Government were approximately \$157 million. Additionally, certain of our contracts with foreign governments contain provisions allowing the government to terminate a contract for convenience. For further discussion, please refer to "Item 1A. Risk Factors."

Patient Monitoring, Diagnostic Cardiology, and Anesthesia Systems. Our patient monitoring, diagnostic cardiology and anesthesia systems are manufactured and distributed globally for use in critical care, emergency and perioperative areas within hospitals as well as physicians' offices, medical clinics and ambulatory surgery centers. We also provide wired and wireless networks, clinical information access solutions and ambulatory blood pressure monitors.

We sell products mainly through integrated delivery networks and group purchasing networks in the U.S., the NHS Foundation Trust in the United Kingdom, UGAP in France, and to various government funded hospitals in the Middle East and several parts of Asia.

Optoelectronic Devices and Electronics Manufacturing Services. Our optoelectronic devices and the electronics we manufacture are used in a broad range of products by a variety of customers. For example, they are utilized by customers in the following market segments: defense, aerospace and avionics; analytical and medical imaging; healthcare; telecommunications; homeland security; barcode scanners; toll and traffic management; and automotive diagnostic systems. Major customers in these segments include Raytheon, Honeywell, UTC Aerospace Systems, Northrop Grumman, Medtronic, Beckman Coulter, United Technologies, Assa Abloy and Trakka, among others.

#### Marketing, Sales and Service

We market and sell our security and inspection products and turnkey security screening solutions globally through a direct sales and marketing staff located North America, Latin America, Europe, Middle East, Africa, and Asia, in addition to an expansive global network of independent distributors. This sales staff is supported by a service organization located in the same regions, as well as a global network of independent, authorized service providers.

We market and sell our healthcare products globally through a direct sales and marketing staff located in North America, Latin America, Europe and Asia, in addition to a global network of independent distributors. We also support these sales and customer service efforts by providing operator in-service training, comprehensive interactive eLearning for all monitoring products, software updates and upgrades and service training for customer

#### Table of Contents

biomedical staff and distributors. We also provide IT specialists and clinical specialists to provide support both before and after product sale.

We market and sell our optoelectronic devices and value-added manufacturing services, through both a direct sales and marketing staff located in North America, Europe and Asia, and indirectly through a global network of independent sales representatives and distributors. Our sales staff is supported by an applications engineering group whose members are available to provide technical support, which includes designing applications, providing custom tooling and process integration and developing products that meet customer defined specifications.

We consider our maintenance service operations to be an important element of our business. After the expiration of our standard product warranty periods, we are often engaged by customers, eit