

---

---

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

---

**FORM 10-K**

**For the fiscal year ended December 31, 2017**

**of**

**ARRIS INTERNATIONAL PLC**  
(Exact name of registrant as specified in its charter)

---

**England and Wales**  
(State or Other Jurisdiction  
of Incorporation)

**001-37672**  
(Commission  
File Number)

**98-1241619**  
(I.R.S. Employer  
Identification No.)

**3871 Lakefield Drive,**  
**Suwanee, Georgia**  
(Address of Principal Executive Offices)

**30024**  
(Zip Code)

**Registrant's telephone number, including area code: (678) 473-2000**

Securities registered pursuant to Section 12(b) of the Act:  
Ordinary Shares, £0.01 nominal value — NASDAQ Global Market System

ARRIS International plc is a well-known seasoned issuer.

ARRIS International plc (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 and (2) has been subject to such filing requirements for the past 90 days.

Except as set forth in Item 10, ARRIS International plc is unaware of any delinquent filers pursuant to Item 405 of Regulation S-K.

ARRIS International plc is a large accelerated filer and is not a shell company.

ARRIS International plc is required to submit electronically and post on its corporate web site interactive data files required to be submitted and posted pursuant to Rule 405 of Regulation S-T.

The aggregate market value of ARRIS International plc's Ordinary Shares held by non-affiliates as of June 30, 2017 was approximately \$5.2 billion (computed on the basis of the last reported sales price per share of such stock of \$28.02 on the NASDAQ Global Market System). For these purposes, directors, officers and 10% shareholders have been assumed to be affiliates.

As of January 31, 2018, 185,238,691 shares of ARRIS International plc's Ordinary Shares were outstanding.

Portions of ARRIS International plc's Proxy Statement for its 2018 Annual General Meeting of Stockholders are incorporated by reference into Part III.

---

---

## TABLE OF CONTENTS

|   | <u>Page</u> |
|---|-------------|
| <b>PART I</b>   |             |
| ITEM 1. Business .....  | 1           |
| ITEM 1A. Risk Factors .....   | 16          |
| ITEM 1B. Unresolved Staff Comments .....  | 35          |
| ITEM 2. Properties .....  | 35          |
| ITEM 3. Legal Proceedings .....   | 35          |
| ITEM 4. Mine Safety Disclosures .....   | 38          |
| ITEM 4A. Executive Officers and Board Committees .....  | 39          |
| <b>PART II</b>  |             |
| ITEM 5. Market for Registrant’s Common Equity, Related Stockholder Matters, Issuer Purchases of<br>Equity Securities, and Stock Performance Graph ..... | 43          |
| ITEM 6. Selected Consolidated Historical Financial Data .....   | 45          |
| ITEM 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations ...   | 46          |
| ITEM 7A. Quantitative and Qualitative Disclosures About Market Risk .....   | 83          |
| ITEM 8. Consolidated Financial Statements and Supplementary Data .....  | 83          |
| ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure ...  | 84          |
| ITEM 9A. Controls and Procedures .....  | 84          |
| <b>PART III</b>   |             |
| ITEM 10. Directors, Executive Officers, and Corporate Governance .....  | 147         |
| ITEM 11. Executive Compensation .....   | 147         |
| ITEM 12. Security Ownership of Certain Beneficial Owners, Management and Related Stockholders<br>Matters .....  | 147         |
| ITEM 13. Certain Relationships, Related Transactions, and Director Independence .....   | 148         |
| ITEM 14. Principal Accountant Fees and Services .....   | 148         |
| <b>PART IV</b>  |             |
| ITEM 15. Exhibits and Financial Statement Schedules .....   | 149         |
| ITEM 16. Form 10-K Summary .....  | 153         |
| Signatures .....  | 154         |

## PART I

### Item 1. *Business*

As used in this Annual Report, unless the context requires otherwise, “we,” “our,” “us,” “the Company,” and “ARRIS” refer to ARRIS International plc (and its predecessors) and our consolidated subsidiaries.

#### General

Our principal executive offices are located at 3871 Lakefield Drive, Suwanee, Georgia 30024, and our telephone number is (678) 473-2000. We maintain a website at [www.arris.com](http://www.arris.com). The information contained on our website is not part of, and is not incorporated by reference into, this Form 10-K. On our website, we provide links to copies of the annual, quarterly, specialized disclosure reports and current reports that we file with the Securities and Exchange Commission (“SEC”), Section 16 reports that our officers and directors file with the SEC, any amendments to those reports, proxy materials for meetings of our shareholders, and all Company news releases. Investor presentations also frequently are posted on our website. Copies of our code of ethics and the charters of our standing board committees also are available on our website. We will provide investors copies of these documents in electronic or paper form upon request, free of charge. We will disclose on our website or on a Current Report on Form 8-K any waivers or amendments to our code of ethics made with respect to our directors and executive officers.

#### Glossary of Terms

Below are commonly used acronyms in our industry and their meanings:

| <u>Acronym</u> | <u>Terminology</u>                              |
|----------------|---|
| ABR            | Adaptive Bit Rate                               |
| AdVOD          | Linear and Demand Oriented Advertising          |
| ARPU           | Average Revenue Per User                        |
| BEQ            | Broadband Edge QAM                              |
| BSR            | Broadband Services Router                       |
| Cable VoIP     | Cable Voice over Internet Protocol              |
| CAM            | Cable Access Module                             |
| CBR            | Constant Bit Rate                               |
| CBRS           | Citizen’s Band Radio Service                    |
| CCAP           | Converged Cable Access Platform                 |
| CE             | Consumer Electronics                            |
| CMS            | Content Management System                       |
| CMTS           | Cable Modem Termination System                  |
| COTS           | Commercial Off the Shelf                        |
| CPE            | Customer Premises Equipment                     |
| CVeX           | Converged Video Exchange                        |
| CWDM           | Coarse Wave Division Multiplexing               |
| DAA            | Distributed Access Architecture                 |
| DBS            | Digital Broadcast Satellite                     |
| DCT            | Digital Consumer Terminal                       |
| DOCSIS®        | Data Over Cable Service Interface Specification |
| DPI            | Digital Program Insertion                       |
| DRM            | Digital Rights Management                       |
| DSL            | Digital Subscriber Line                         |

| <u>Acronym</u> | <u>Terminology</u>                           |
|----------------|--|
| DTA .....      | Digital Television Adapter                   |
| DVB .....      | Digital Video Broadcasting                   |
| DVR .....      | Digital Video Recorder                       |
| DWDM .....     | Dense Wave Division Multiplexing             |
| EMTA .....     | Embedded Multimedia Terminal Adapter         |
| EPON .....     | Ethernet over Passive Optical Network        |
| eQAM .....     | Edge Quadrature Amplitude Modulator          |
| FPGA .....     | Field Programmable Gate Arrays               |
| FTTH .....     | Fiber to the Home                            |
| FTTP .....     | Fiber to the Premises                        |
| FWA .....      | Fixed Wireless Access                        |
| GAAP .....     | Generally Accepted Accounting Principles     |
| GHZ .....      | Gigahertz                                    |
| GPA .....      | General Purchase Agreements                  |
| HD .....       | High Definition                              |
| HD-DVR .....   | High Definition Digital Video Recorder       |
| HDTV .....     | High Definition Television                   |
| HDR .....      | High Dynamic Range                           |
| HEVC .....     | High Efficiency Video Coding                 |
| HFC .....      | Hybrid Fiber-Coaxial                         |
| IFRS .....     | International Financial Reporting Standards  |
| ILEC .....     | Incumbent Local Exchange Carrier             |
| IoT .....      | Internet of Things                           |
| IP .....       | Internet Protocol                            |
| IPR .....      | Intellectual Property Rights                 |
| IPTV .....     | Internet Protocol Television                 |
| IRD .....      | Integrated Receiver / Decoder                |
| LAN .....      | Local Area Network                           |
| MHz .....      | Megahertz                                    |
| Mbps .....     | Megabits per Second                          |
| MPEG .....     | Moving Picture Experts Group                 |
| MPEG-2 .....   | Moving Picture Experts Group, Standard No. 2 |
| MPEG-4 .....   | Moving Picture Experts Group, Standard No. 4 |
| M-CMTS .....   | Modular CMTS                                 |
| MSO .....      | Multiple Systems Operator                    |
| MSP .....      | Media Services Platform                      |
| MTA .....      | Multimedia Terminal Adapter                  |
| MVPD .....     | Multichannel Video Programming Distributors  |
| NGNA .....     | Next Generation Network Architecture         |
| nDVR .....     | Network Digital Video Recorder               |
| nPVR .....     | Network Personal Video Recorder              |
| NSM .....      | Network Service Manager                      |
| NIU .....      | Network Interface Unit                       |

| <u>Acronym</u>    | <u>Terminology</u>                               |
|-------------------|--|
| OLT .....         | Optical Line Termination                         |
| ONU .....         | Optical Network Unit                             |
| OEM .....         | Original Equipment Manufacturer                  |
| OFDM .....        | Orthogonal Frequency Domain Multiplexing         |
| OSS .....         | Operations Support System                        |
| OTT .....         | Over-the-Top                                     |
| PC .....          | Personal Computer                                |
| PCS .....         | Post Contract Support                            |
| PCT .....         | Patent Convention Treaty                         |
| PON .....         | Passive Optical Network                          |
| PSTN .....        | Public-Switched Telephone Network                |
| PVR .....         | Personal Video Recorder                          |
| QAM .....         | Quadrature Amplitude Modulation                  |
| QoS .....         | Quality of Service                               |
| RDK .....         | Reference Design Kit                             |
| RF .....          | Radio Frequency                                  |
| RFOG .....        | Radio Frequency over Glass                       |
| RGU .....         | Revenue Generating Unit                          |
| R-MACPHY .....    | Remote Media Access Control and Physical Layers  |
| R-PHY .....       | Remote Physical layer                            |
| SCTE .....        | Society of Cable Telecommunication Engineers     |
| SD .....          | Standard Definition                              |
| SDV .....         | Switched Digital Video                           |
| SLA .....         | Service Level Agreement                          |
| TVE .....         | TV Everywhere                                    |
| UHD .....         | Ultra High Definition                            |
| Triple Play ..... | Bundled Offering of Internet, Telephone and TV   |
| VAR .....         | Value-Added Reseller                             |
| VOD .....         | Video on Demand                                  |
| VoIP .....        | Voice over Internet Protocol                     |
| VPN .....         | Virtual Private Network                          |
| VSP .....         | Video Services Platform / Video Service Provider |
| VSOE .....        | Vendor-Specific Objective Evidence               |
| WLAN .....        | Wireless Local Area Networking                   |

## Overview

ARRIS, headquartered in Suwanee, Georgia, is a global leader in entertainment, communications, and networking technology. Our mission is to “redefine connectivity” in a rapidly evolving global communications industry. Our innovative offerings combine hardware, software, and services to enable advanced video experiences and constant connectivity featuring high bandwidth, speeds and reliability. Our products and services are utilized by the world’s leading service providers, commercial enterprises, and the hundreds of millions of people they serve. For more information, visit [www.arris.com](http://www.arris.com).

We operate in three business segments: Customer Premises Equipment (“CPE”), Network & Cloud (“N&C”) and Enterprise Networks (“Enterprise”). We enable service providers, including cable, telecom, digital

broadcast satellite operators and media programmers, to deliver media, voice, and IP data services to their subscribers. We are a leader in set-tops, digital video and Internet Protocol Television (“IPTV”) distribution systems, broadband access infrastructure platforms, and broadband data and voice CPE, which we also sell directly to consumers through retail channels. Through our enterprise distribution channels, we provide wireless and wired products and services for connectivity across varied networking environments to customers across a spectrum of verticals—including hospitality, education, smart cities, government, venues, service providers and more. Our core solutions are complemented by a broad array of services, including technical support, repair and refurbishment, and system design and integration.

## **Acquisitions**

On December 1, 2017, we completed a stock and asset purchase acquisition of the Ruckus Wireless® and ICX® Switch business (collectively “Ruckus” or “Ruckus Networks”) for \$761.0 million cash (net of estimated adjustment for working capital and non-cash settlement of pre-existing payables and receivables). In addition, approximately \$61.5 million in cash was transferred related to the cash settlement of stock-based awards held by transferring employees. The purchase agreement provides for customary final working capital adjustments that are expected to occur in 2018.

On January 4, 2016, we completed the acquisition of Pace. As part of the transaction, both ARRIS Group and Pace became wholly-owned subsidiaries of ARRIS International plc, our new holding company incorporated under the laws of England and Wales. While our jurisdiction of organization was changed, our corporate headquarters remain in the United States.

Except for historical financial information, which relates only to ARRIS Group, or as context otherwise requires, our description of the Company and the industry and markets we operate in described in this Annual Report on Form 10-K reflects the combined operations of ARRIS, Pace and Ruckus Networks. Following the completion of the Ruckus Networks acquisition, we began to operate in three business segments — Consumer Premises Equipment, Network & Cloud and Enterprise Networks. The former Pace operations are included in the CPE and N&C segments, and the Ruckus Networks operations will be primarily included in the Enterprise segment.

## **Industry Overview**

Entertainment and communications delivery are evolving rapidly because of a convergence of trends including the rapid growth of bandwidth consumption and consumer and enterprise migration from wired to wireless connections. These and other trends are driving a set of industry dynamics that include increased competition among service providers, industry consolidation and significant investment in creating advances in communications and networking technology.

Video distribution over the broadband IP network is transforming how content is managed and consumed. IP facilitates new forms of video such as Over-the-Top TV (“OTT”) and interactive television — the delivery of the video as it accelerates the evolution of communications services, like interactive media and broadband. As a result, service providers are compelled to continually invest in and upgrade their network and expand their video, voice, data, and mobile services. This trend has accelerated as service providers have raced to deliver residential gigabit broadband speeds to fully support new multiscreen video services and the rapid growth of Internet of Things (“IoT”) devices.

Providing these advanced services to consumers is a highly competitive business. The competitive environment is driving service providers to enhance and expand their offerings by adding more high-definition (“HD”) channels, and now Ultra High Definition (“UHD”) TV content, increasing data speeds and expanding wireless services to provide converged media experiences that bridge conventional TV and Internet services. This competition is the catalyst for ongoing video and broadband network upgrades as well as technology investment cycles in CPE, such as set-tops, gateways and modems.

Service providers continue to invest in new capabilities to differentiate and gain market share. These investments have resulted in enhanced user interfaces, higher broadband speeds, additional programming, integrated home networking and monitoring services with higher reliability. These cycles, combined with associated consumer trends and innovation in entertainment and communications delivery continue to drive industry growth.

Service providers and enterprises are investing in higher capacity and more fully featured indoor and outdoor Wi-Fi platforms and services to solve a range of network capacity, coverage and reliability challenges associated with increasing wireless traffic demands created by the growth in the number of users equipped with more powerful smart wireless devices using increasingly data-rich applications and services.

## Operating Segments

We operate in three business segments, (1) Customer Premises Equipment (2) Network & Cloud and (3) Enterprise Networks. Corporate and other expenses not included in the measure of segment contribution are reported in an “All Other” category. See Note 10 *Segment Information* of Notes to the Consolidated Financial Statements for additional information.

## Our Strategy

We are at the center of a new era of wired and wireless entertainment and communications that unites our vision and technological leadership with our service provider and enterprise customers’ evolving needs to transform the way that hundreds of millions of people around the world connect to the Internet and watch video content. We believe ARRIS has multiple global growth opportunities to leverage our strong market position to capitalize on the growth cycle powering our business. Our long-term business strategy is to redefine connectivity by directly addressing these global industry trends in the following ways:

- Providing a balanced portfolio of entertainment and communications solutions that are connected, personalized and mobile
- Collaborating with the world’s leading service and content providers and maintaining deep relationships
- Establishing leading positions in large global service provider and enterprise markets
- Exploiting the disruptive force of software virtualization, augmented with state-of-the-art hardware platforms
- Optimizing organic and inorganic investments to expand our business
- Enhancing the ARRIS brand while growing the well-respected Ruckus brand as the industry moves to small cell technology for delivery of mobile content.

Specific aspects of our strategy include:

- ***Leveraging ARRIS’s scale to drive profitable worldwide growth.*** Our comprehensive portfolio and global scale enable ARRIS to serve the world’s leading service providers and capitalize on their continuous investments in technology and service innovation.
- ***Enabling our service provider customers to provide the necessary broadband capacity to support increased consumer demand for faster Internet connections and the transition to IP Video.*** Consumer demand for faster Internet speeds with more capacity continues to grow at an escalating rate, primarily driven by ever increasing consumption of video. ARRIS provides the technology to enable our customers to manage this exponential bandwidth growth cost effectively. We invest in DOCSIS, DSL and Next Generation PON (FTTH) to ensure our products are at the forefront in enabling service providers to deliver the highest amount of bandwidth to their subscribers across any physical connection.

- ***Capitalizing on the evolution towards network convergence and all IP platforms to drive business growth.*** Service providers face a unique challenge in preparing for the future: delivering today's new services on legacy equipment, while transitioning to an all-IP model to anticipate the demand for tomorrow's advanced services. ARRIS collaborates with its global customers to transform their entire delivery chain from content creation to consumption. Our optical portfolio enables service providers to improve their networks by bringing fiber closer to subscribers for drastically increased network speeds. Our broad video portfolio offers a variety of pathways for delivering tomorrow's services through a combination of network-based video transcoding, packaging, storage and compression technologies required to deliver new IP video formats; cloud-based platforms to deliver robust and personalized user experiences; and home gateways that are the new hub for delivering IP-based entertainment to connected devices inside and outside the home.
- ***Solving a range of Enterprise network capacity, coverage and reliability challenges associated with increasing wireless traffic demands.*** Enterprises, venues and organizations across a range of verticals will upgrade their networks to provide improved services and faster, more seamless connectivity. The combined ARRIS and recently acquired Ruckus Networks products create a diverse and reliable portfolio of technology to address the increasingly complex landscape faced by service providers, channel sellers and enterprises. We serve verticals that include hospitality, education, government, public venues and smart cities with wired and wireless solutions for Internet access, Internet of Things, and lower cost private cell networks.
- ***Enabling differentiated and personalized multiscreen experiences through a holistic approach to content delivery.*** The growth of connected consumer devices has created an opportunity for service providers to deliver new, more personalized content experiences to consumers across multiple screens. These experiences require control over content distribution as well as seamless integration into multiple touch-points in the consumer experience. The consumer experience leverages more wireless devices than ever before, with subscribers using private and public Wi-Fi networks to access the highest Internet speeds with the best content. ARRIS brings unparalleled experience to making residential and enterprise Wi-Fi faster with less conflict as the number of devices continues to grow. ARRIS is transforming the entertainment experience through a holistic approach to content delivery, leveraging our expertise in the cloud, network, and home, to help providers anticipate demand for more personalized, relevant, and mobile experiences.
- ***Investing in our product and service portfolios through development, partnership and acquisition.*** ARRIS's growth strategy is focused on investing efficiently in the right opportunities to effectively expand our business. By leveraging our global scale and innovation around the world, we regularly seek both organic investment and acquisition opportunities that position ARRIS for future growth.
- ***Expanding our international business and exploring adjacent market opportunities.*** ARRIS continuously seeks and analyzes investments in opportunities that allow us to capitalize on the growth of video, broadband and Enterprise services in global markets. Some examples include the growth of digital video and HDTV in Canada, Latin America, Europe, the Middle East and Africa and Asia as well as the demand for increased data speeds that are driving infrastructure investment. We also are pursuing opportunities that arise in new and adjacent markets, including wireless, optical, retail, professional services and enterprise.



## **Our Principal Products**

Our innovations combine hardware, software, and services across the cloud, network, enterprise and home to power TV and Internet for hundreds of millions of people around the globe. A cross-section of our products in each of our three business segments, Customer Premises Equipment, Network & Cloud and Enterprise Networks is described below:

### **Customer Premises Equipment**

- Broadband CPE

#### DSL and Cable Modem

- A device located at the subscriber's home that connects to the cable or telco network to receive and transmit digital information between subscriber-owned Ethernet devices (e.g., desktop PC or router) and the service provider's headend or central office, providing Internet connectivity for data and/or voice services.

#### Broadband Gateway

- A device located at the subscriber's home that connects to the cable or telco network to receive and transmit data between subscriber-owned Ethernet or wireless devices (e.g., laptop, tablet, smartphone, and IoT devices), IP video devices and the service provider's headend or central office, providing Internet connectivity. Gateway products add wireless connectivity or other wired connectivity to connect devices together throughout a customer's home as well as other features such as security.

- Video CPE

#### Set-Top

- A device installed at the subscriber's television set that connects to the service provider network to decode secure digital video signals and render them as video on the television set.

#### Video Gateway

- A device that serves as the primary video connection between the service provider network and the subscriber's home. This gateway will enable the delivery of broadcast, streamed and stored video throughout the subscriber's home to televisions and other connected devices.

### **Network & Cloud**

- Networks

#### CMTS/CCAP/PON

- The Cable Modem Termination System ("CMTS") is installed at a cable operator's headend or hub facility and communicates with cable modems to control the flow of data, including through allocating shared bandwidth and prioritizing and routing traffic. The Converged Cable Access Platform ("CCAP") combines the functionality of a CMTS and an Edge QAM to enable voice, video and data in a converged IP network. The CCAP functionality may be deployed either entirely in a centralized facility or as a Distributed Access Architecture ("DAA") where some functions are located centrally and others are deployed at the edges of the network.
- A Passive optical network ("PON") is a form of fiber-optic telecommunications access technology that implements a point-to-multipoint architecture, in which passive fiber optic splitters are used to enable a single optical fiber to serve multiple end-points, without requiring individual fibers between the hub and customer. A PON consists of an optical line terminal ("OLT") at the service provider's central office (hub) and a number of optical network units ("ONUs") or optical network terminals ("ONTs"), near end users. A PON reduces the amount of fiber and central office equipment required compared with point-to-point architectures.

## Video Systems

- Service Provider and Programmer Equipment that process and package video content for delivery over the service provider network to be received by a set-top or gateway. Includes encoding, compression, transcoding, storage, policy management, security and encryption, and signal modulation for HFC, DSL and/or fiber networks.
- Ad Insertion Technologies supporting linear and on demand ad placement and substitution in MPEG and IP delivery environments.

## Access Technologies

- Equipment in the ground or on transmission poles between service providers' headend and subscribers' premises, as well as equipment used to initiate the distribution of content-carrying signals. Includes optical transmission equipment, Fiber Nodes, RF Amplifiers and metro Wi-Fi wireless products.
- Software and Services

### Software

- Software products that enable providers to securely deliver content and advertising services across multiscreen devices on and off their networks.
- Network management products that collect information from the broadband network and apply analytics to diagnose faults and improve performance.
- Customer experience management solutions enabling service providers to efficiently manage and dispatch field technicians. Network surveillance and issue correlation software and services.

## Global Services

- Professional services, focused around major practices in Wi-Fi, IP Video, service experience, network transformation, software engineering and hosting to support and assist operators plans for new gigabit high speed data services, greater levels of mobility and all IP video and data distribution architectures.
- Technical Services providing technical support services worldwide for all ARRIS products, including our retail customers.

## Enterprise Networks

- Enterprise Networks

### Campus Network Switches

- The ICX Switch Family is a portfolio of scalable fixed form-factor wired Ethernet switches for next-generation enterprise and campus IP networks.

### Wi-Fi Access Points

- Wi-Fi Access Points include a wide array of indoor, outdoor and special-purpose Wi-Fi Access Points that deliver wireless connections as well as accessories such as antennas. Indoor and outdoor wireless access points include patented technologies and are optimized for different budget, performance requirement or deployment scenarios, including high client density, Wi-Fi-unfriendly building materials or rising employee or customer bandwidth expectations.

### Smart Wireless Services and Software

- SmartCell Insight is a big data Wi-Fi analytics and reporting platform that helps enterprises and service providers enhance, optimize and scale the performance of their wireless networks and services.
- ZonePlanner is Ruckus-specific Wi-Fi planning and modeling software that integrates unique antenna patterns generated from our patented intelligent array integrated into every Smart Wi-Fi access point.

- Smart Positioning Technology is a cloud-based Smart Wi-Fi location-based services platform leveraging unique user positioning technology that gives both service providers and enterprises the ability to deliver a wide-range of value-added services that can help them increase profitability and customer appeal while enhancing customers' mobile experiences.
- Cloudpath Wi-Fi device on-boarding bridges the gap between enterprise-grade security and personal devices to create a Set-It-And-Forget-It Wi-Fi device on-boarding experience that allows "bring your own device" and IT-owned devices to be on-boarded in a scalable, secure, and user-friendly manner.
- Mobile Apps for controllers, cloud Wi-Fi, location, and performance testing.

#### System Management and Control

- Ruckus Cloud Wi-Fi is a wireless local area network (WLAN) management-as-a-service offer powered by the Ruckus public cloud platform. Ruckus Cloud Wi-Fi enables distributed organizations with limited IT resources to set up, monitor and manage a high-performance multi-site WLAN of any size.
- Unleashed are controller-less Smart Wi-Fi access points custom-designed to help small business owners use Wi-Fi networks to grow their business, deliver an excellent customer experience and manage costs while supporting a variety of mobile devices with minimal information technology ("IT") staff. Unleashed access points are similar to comparable standard Ruckus ZoneFlex access points but have built-in controller capabilities similar to Ruckus' ZoneDirector controller software, including user access controls, guest networking functions, advanced Wi-Fi security and traffic management.
- SmartZone is a unique line of carrier-grade wireless access and management products that include specialized hardware products such as SmartZone ("SZ") controllers, as well as software solutions such as vSZ and virtual SmartZone Data Plane.
- ZoneDirector is our family of Smart Wi-Fi controllers that streamline the configuration and management of Ruckus Smart Wi-Fi access points. ZoneDirectors can be deployed onsite or remotely and include different models to serve small, medium and large-scale end customers requiring from six to 1,000 access points.

#### Sales and Marketing

Our sales, sales engineering and technical services teams serve our global customers through offices in the U.S. and in many of our global markets. We also work with value added resellers ("VARs"), sales representatives, distributors and channel partners that extend our sales presence into enterprise and operator markets where we do not have established sales offices. We also maintain an inside sales group that is responsible for regular communication with the customer to ensure prompt order entry, accurate delivery, and effective sales administration.

Our sales engineering team assists customers in system design and specification. Our technical services team provides professional services to help network operators and enterprises design and keep their networks operating at peak performance. We provide 24x7 technical support, directly and through channel partners, as well as training, both at our facilities and at our customers' sites.

We achieve superior customer service through advanced customer relationship management programs combined with information systems that allow us to provide personalized and timely customer support on a range of subjects and to continually refine operations management.

Our marketing organization promotes both the ARRIS and Ruckus brands and our solutions to key stakeholders including customers, consumers, partners, prospects and employees throughout the world. It is complemented by a product management team, which works with our engineering teams to develop and market new products and product enhancements. These teams are responsible for overall business profitability, commercial teams, inventory management, delivery requirements, and market demand analysis, as well as product positioning, communications and advertising.

## Customers

While ARRIS is executing on a strategy to diversify its customer base, such as through the acquisition of Ruckus, the majority of our sales today are to facilities-based cable, telco and satellite multi-channel video service providers. As the global telecommunications industry continues trending toward consolidation, our sales to the largest service providers remain crucial to our success. Our sales are substantially dependent upon a system operator's selection of ARRIS's network equipment, demand for increased broadband services by subscribers, and general capital expenditure levels by system operators.

With the acquisition of Ruckus, we anticipate there will be a trend to a greater proportion of our sales being to end customers in hospitality, venues, education, government and smart cities through our channel partners.

Our two largest customers (including their affiliates, as applicable) are Charter and Comcast. No other customer accounted for 10% or more of our sales in 2017. From time to time, the affiliates included in our revenues from these customers have changed because of mergers and acquisitions. Therefore, the revenue for our customers for prior periods has been adjusted to include, on a comparable basis for all periods presented, the affiliates currently understood to be under common control. Our sales to these customers for the last three years were (in thousands, except percentages):

|                                  | Years ended December 31, |                             |              |
|----------------------------------|--------------------------|-----------------------------|--------------|
|                                  | 2017                     | 2016                        | 2015         |
| Charter and affiliates . . . . . | \$ 985,237               | \$ 1,064,408 <sup>(1)</sup> | \$ 960,497   |
| % of sales . . . . .             | 14.9%                    | 15.6%                       | 20.0%        |
| Comcast and affiliates . . . . . | \$ 1,479,415             | \$ 1,637,519 <sup>(1)</sup> | \$ 1,007,376 |
| % of sales . . . . .             | 22.4%                    | 24.0%                       | 21.0%        |

(1) Revenues were reduced by \$30.2 million in 2016, because of warrants held by Charter and Comcast that are intended to incent additional purchases from them. (see Note 17 *Warrants* of Notes to the Consolidated Financial Statements for additional information).

ARRIS utilizes standard terms of sale that apply to all customer purchases, except those larger customers with whom we have executed general purchase agreements ("GPAs"). These GPAs do not generally obligate the customer to a specific volume of business. The vast majority of our sales, whether to customers with GPAs or otherwise, result from periodic purchase orders. We have multiple agreements with our largest customers, including Charter and Comcast, based upon their needs or because of prior acquisitions. We maintain these agreements in the normal course of our business.

## International Operations

Our international revenue is generated primarily from Asia-Pacific, EMEA and the Americas. The Asia-Pacific market includes Australia, China, Hong Kong, India, Japan, Korea, Malaysia, New Zealand, Singapore, and Taiwan. The EMEA market includes Austria, Belgium, Denmark, France, Germany, Hungary, Ireland, Israel, Italy, Netherlands, Norway, Poland, Portugal, Romania, Russia, Spain, South Africa, Sweden, Switzerland, Turkey, United Kingdom and United Arab Emirates. The Americas market includes Argentina, Bahamas, Brazil, Canada, Chile, Colombia, Costa Rica, Ecuador, Honduras, Jamaica, Mexico, Panama, Peru and Puerto Rico. Revenues from international customers were approximately 34.2%, 28.1%, and 28.8% of total revenues for 2017, 2016 and 2015, respectively.

We continue to strategically invest in worldwide marketing and sales efforts. We currently maintain international sales offices in Argentina, Australia, Belgium, Brazil, Canada, Chile, China, Colombia, France, Hong Kong, India, Ireland, Israel, Japan, Korea, Malaysia, Mexico, Netherlands, Poland, Portugal, Russia, Singapore, Spain, South Africa, Taiwan, United Kingdom and United Arab Emirates as well as work-from-home sales representatives in other counties.

For more information on risk attendant to our foreign operations, see Item 1A, "Risk Factors."

## Research and Development

We operate in an industry that is subject to rapid changes in technology, and our success is largely contingent upon anticipating such changes. Accordingly, we invest significantly in research and development. This commitment to innovation resulted in the development of many next-generation solutions such as CCAP, Fiber Deep, DOCSIS3.1, HD-DVR, WholeHome DVR/media server, in-home and metro Wi-Fi, IoT, CBRS and 4K/UHD. We continue to innovate in anticipation of both our customers' needs and developing industry trends, including:

- Solving the complexity of delivering content to the growing number of connected devices through scalable networking and connectivity solutions that enable efficient OTT and other advanced entertainment services streaming.
- Anticipating demand for more personalized and mobile experiences with end-to-end multiscreen solutions to monetize tomorrow's content experiences.
- Realizing the potential of today's entertainment and communication technologies, monetizing future services like UHD, IoT, Gigabit Wi-Fi and CBRS, and transitioning to all-IP networks through powerful transcoding, bandwidth optimization, and video compression technologies.
- Employing state-of-the-art computing and packet processing technologies to solve the last-mile bottleneck, providing ever higher residential and enterprise speeds and bandwidth.
- Enabling complex functions to be performed in the "cloud" to simplify and streamline the in-home network and service providers' network operations.

We have significant engineering resources and employees in the U.S. dedicated to research and development through laboratories in Beaverton, Oregon; Horsham, Pennsylvania; Lisle, Illinois; Lowell, Massachusetts; Santa Clara, California; San Diego, California; San Jose, California; Sunnyvale, California; Suwanee, Georgia; and Wallingford, Connecticut, as well as internationally in Bangalore, India; Cork, Ireland; Linkoping, Sweden; Mississauga, Canada; Netanya, Israel; Paris, France; Saltaire, U.K.; Shenzhen, China; Singapore, Singapore and Taipei, Taiwan.

Research and development expenses in 2017, 2016 and 2015 were approximately \$539.1 million, \$584.9 million and \$534.2 million, respectively. Research and development expenses as a percent of sales in 2017, 2016 and 2015 were approximately 8.1%, 8.6% and 11.1%, respectively. These costs include an allocation of common costs associated with information technology and facilities.

## Intellectual Property

We have an active patenting program for protecting our innovations. During 2017, we continued to enhance our patent portfolio. We were awarded 274 patents and filed 397 patent applications. As of January 31, 2018, our intellectual property portfolio consisted of approximately 3,691 issued patents (both U.S. and foreign), including patents acquired in connection with the Ruckus Networks acquisition, and we continue to pursue patent protection on new inventions (currently approximately 1,439 U.S. and foreign patent applications pending).

In our effort to pursue new patents, we have created a process whereby employees may submit ideas of inventions for review by patent committees. The review process evaluates each submission based on criteria that includes: novelty, potential commercial value of the invention, and detectability of infringement. Patent applications are filed on these inventions that meet the criteria.

Although patents generally have a 20-year legal life, the relevant technologies to which the patents apply often have much shorter lives. As such, the economic useful life of the patents is often the same as that of the associated developed technology.

Our patents and patent applications generally are in the areas of telecommunications hardware, software and related technologies. For technology that is not owned by us, we have a program for obtaining appropriate

licenses to ensure that we have the necessary license coverage for our products. In addition, we have formed strategic relationships with leading technology companies to provide us with early access to technology that we believe will help keep us at the forefront of our industry.

We also have a program for protecting and developing trademarks. As of January 31, 2018, ARRIS had 793 registered or pending trademark registrations, including trademarks acquired with Ruckus Networks. Our trademark program includes procedures for the use of current trademarks and for the development of new trademarks. This program is designed to ensure that our employees properly use our registered trademarks and any new trademarks that are expected to develop strong brand loyalty and name recognition. The design of our trademark program is intended to protect our trademarks from dilution or cancellation.

From time to time there are significant disputes with respect to the ownership of the technology used in our industry and accusations of patent infringements. See Part I, Item 3, "Legal Proceedings."

### **Product Sourcing and Distribution**

We maintain a balance of internal and external manufacturing providers to continue offering our customers a competitive combination of quality, cost and flexibility in meeting their needs. We operate manufacturing facilities in Hsin Tien, Taiwan; Tijuana, Mexico; and Manaus, Brazil. We also use contract manufacturers located in Brazil, China, Malaysia, Mexico, South Africa, Thailand and the United States.

We provide our contract manufacturers with rolling, non-binding forecasts, and we typically have a minimum of 60 days placed with them for products. Purchase orders for delivery within 60 days generally are not cancelable. Purchase orders with delivery past 60 days generally may be cancelled with penalties in accordance with each vendor's terms. Each contract manufacturer provides a minimum 15-month warranty.

We currently manufacture a significant portion of our CPE business video set-tops and gateways in our manufacturing facility in Hsin Tien, Taiwan. The factory is 209,600 square feet, and, as of December 31, 2017, the facility employed approximately 980 people. On February 8, 2018, we announced our plans to sell this facility to one of our long-time contract manufacturers and move the production to one of the contract manufacturer's other locations. We manufacture a limited amount of CPE business video set-tops in Manaus, Brazil to serve the local market. The factory is 59,202 square feet, and, as of December 31, 2017, the facility employed approximately 160 people. Current outsourcing arrangements include the manufacture of set-tops, modems, DTAs and IP set-tops.

We manufacture a portion of our Network & Cloud products in our manufacturing facility in Tijuana, Mexico. The factory is 128,124 square feet, and, as of December 31, 2017, the facility employed approximately 1,100 people. Current outsourcing arrangements include CMTS, amplifiers, certain power supplies, accessories, optical modules, digital return modules, circuit boards, repair services, and video infrastructure equipment.

We outsource the production of Enterprise products to contract manufacturers.

We distribute a substantial number of products that are not produced by us to provide our customers with a comprehensive portfolio offering. Domestically, we distribute hardware and installation products through regional warehouses in California, North Carolina, and Washington. Internationally, we distribute through regional warehouses in Australia, Canada, Japan and Netherlands, and through drop shipments from our contract manufacturers located throughout the world.

We obtain key components from numerous third-party suppliers. Our supply agreements include technology licensing and component purchase contracts. Several of our competitors have similar supply agreements for these components. In addition, we license software for operating network and security systems or sub-systems and a variety of routing protocols from different suppliers.

We primarily sell our Enterprise Networks products indirectly through a large network of value-added resellers and distributors, which we collectively refer to as channel partners. Our channel partners provide lead generation, pre-sales support, product fulfillment and, in certain circumstances, post-sales customer service and

support. In some instances, service providers may also act as a channel partner for sales of our solutions to enterprises. In certain circumstance we do sell Enterprise Networks products directly to end customers but it is a relatively small part of the overall business.

## **Backlog**

Our backlog consists of unfilled customer orders (believed to be firm and long-term contracts) that have not been completed. With respect to long-term contracts, we include in our backlog only amounts representing orders currently released for production or, in specific instances, the amount we expect to be released in the succeeding 12 months. The amount contained in backlog for any contract or order may not be the total amount of the contract or order. The amount of our backlog at any given time does not reflect expected revenues for any fiscal period.

Our backlog at December 31, 2017 was approximately \$1,121.4 million, at December 31, 2016 was approximately \$1,106.3 million, and at December 31, 2015 was approximately \$715.8 million. We believe that all the backlog existing at December 31, 2017 will be shipped in 2018.

Anticipated orders from customers may fail to materialize and delivery schedules may be deferred or cancelled for any number of reasons, including reductions in capital spending by network operators, shipping disruptions, customer financial difficulties, annual capital spending budget cycles, and construction delays.

## **Competition**

The markets in which we participate are dynamic and highly competitive, requiring companies to react quickly to capitalize on opportunity. We retain skilled and experienced personnel, and deploy substantial resources to meet the changing demands of the industry and to capitalize on change. We compete with international, national and regional manufacturers, distributors and wholesalers, including companies that are larger than we are. Our major competitors include:

- ADB Global;
- Aerohive;
- Asus;
- ATX;
- Belkin;
- BKTel;
- Casa Systems, Inc.;
- Ciena;
- Cisco Systems, Inc.;
- Commscope, Inc.;
- Concurrent Computer Corporation;
- Emcore Corporation;
- Ericsson;
- Extreme Networks;
- Finisar;
- Guavus;

- H3C;
- Harmonic, Inc.;
- Hewlett Packard Enterprises;
- Hitron Technologies Americas Inc.;
- Huawei;
- Humax Co.;
- Imagine Communications
- Infinera;
- InnoTrans;
- Kathrein;
- Lindsay Broadband;
- Netgear;
- Netgem;
- Nokia
- Pacific Broadband Networks;
- PCT International;
- Sagemcom;
- Samsung;
- SeaChange International, Inc.;
- SMC Networks;
- Technetix;
- Technicolor S.A.;
- Teleste;
- TiVo Inc.;
- TOA Technologies (Oracle);
- Ubee Interactive, Inc.;
- Ubiquiti;
- Vecima Networks, Inc.; and
- ZTE

We distinguish our products on the basis of reliability and performance, differentiated features, flexibility, breadth, customer service, and availability of business solutions, while pricing our solutions competitively with those of other competitors.

Consumer demand for more bandwidth is a fundamental driver behind the continued growth in CMTS and CCAP Edge Routing capacity deployed by service providers worldwide. The CMTS/CCAP supplier space is highly competitive with strong historical players such as Cisco and newer products, particularly focused on the trend towards DAA, from manufacturers such as Casa, Harmonic, Nokia, Teleste and Vecima.



ARRIS is a worldwide leader in CMTS and CCAP. Our portfolio of IP network solutions continues to provide the scale and efficiency to power service providers' transition to next-generation networks and services. Showcase solutions like our E6000® Converged Edge Router are driving this global momentum and are responsible for providing service to millions of subscribers through the world's leading service providers.

ARRIS is a worldwide leader in CPE equipment. Our primary competitors are Technicolor S.A., Sagecom, Humax, and Huawei. We compete in video set-tops/gateways, DOCSIS, DSL, and FTTH solutions. This positions ARRIS to capitalize on several key industry opportunities: 1) the set-top's evolution into the gateway for all communications, media, and other connected services; 2) the shift to gigabit Wi-Fi and its growing role as a principal conduit for the connected home; 3) the refresh cycle of today's broadly deployed base of set-tops and broadband gateways; and 4) the evolution and hybridization of network standards and models, from xDSL to G.Fast, D3.1 to xPON, new IP video services, and more. ARRIS is also introducing products to address the emerging Fixed Wireless Access ("FWA") approach to using high bandwidth fixed radio communications as a lower cost or higher capacity alternative to twisted pair, coax, or fiber physical connections between the edge of the network and the home or business.

Our multi-screen content management and protection products compete with many vendors offering on-demand video and digital advertising insertion hardware and software, including Adobe, Cisco, Concurrent, Ericsson, Irdeto, SeaChange, TiVo, Verimatrix, and others. Our operations management systems compete with vendors offering network management, mobile workforce management, network configuration management, and network capacity management systems such as Oracle (formerly TOA Technologies), Click Software, Guavus and others, some of which may currently have greater sales in these areas than ARRIS. In some instances, our customers internally develop their own software for these functions. However, we believe that we offer a more integrated solution that gives us a competitive advantage in supporting the requirements of both today's distribution networks and the emerging all-digital, packet-based networks.

We also compete with companies such as Cisco, Harmonic, Huawei, Nokia, Teleste, Technetix, Vecima and ZTE for network distribution and access equipment. In recent periods, competition in this market has increased from aftermarket suppliers, whose primary focus is on the refurbishment of OEM equipment, resulting in additional competition for new sales opportunities. In addition, because of the convergence of the cable and telecommunications sectors and rapid technological development, new competitors may enter this market

Our enterprise and service provider Wi-Fi and campus switching products compete with companies including Aerohive, Cisco, Ericsson, H3C, Hewlett Packard Enterprise, Huawei, Nokia and Ubiquiti, some of which have greater sales in these areas than ARRIS.

Lastly, some of our competitors are larger companies with greater financial resources and product breadth than us. This may enable them to bundle products or be able to market and price products more aggressively than we can.

### **Regulation and Corporate Responsibility**

Our products and operations are subject to numerous U.S. and international regulations and requirements in the areas of labor, environmental compliance, including energy efficiency standards, health and safety and ethics. We are committed to strong corporate responsibility, and in 2017, we continued our participation as an active member of the Responsible Business Alliance ("RBA" formerly known as the Electronic Industry Citizenship Coalition), a non-profit coalition of electronics companies dedicated to supporting the rights and wellbeing of workers and communities affected by the global electronics supply chain. We continue to work with our suppliers by utilizing the RBA process collaboratively to improve working and environmental conditions through industry leading standards and practices to drive continual improvement and mitigate risk. Additional information regarding these policies and programs is available under the "Investors" tab of our corporate website ([www.arris.com](http://www.arris.com)).

As signatories to the Voluntary Agreement for Ongoing Improvement to the Energy Efficiency of Set-Top Boxes and Small Network Equipment in the U.S., the SCTE/ISBE's Energy 20/20 initiative and the Voluntary

Industry Agreement to Improve the Energy Consumption of Complex Set-Top Boxes in the European Union, we continue to be committed to reducing our environmental impact through increasing the energy efficiency of our products while still protecting our need to adapt to rapidly changing technology and the introduction of new features.

### ***Modern Slavery Act***

We are dedicated to ensuring that human rights are respected at all times. We have implemented a number of business policies to ensure the safety and well-being of our employees, our contractors and our suppliers' employees. We require that our suppliers conduct themselves in a lawful and ethical manner and maintain high standards. Aligning with the requirements of the U.K. Modern Slavery Act, our Supplier Code of Conduct requires that our suppliers not use forced, bonded or involuntary prison labor or child labor when producing products. To enforce the Supplier Code of Conduct, we audit our product supply chain to evaluate and address risks of human trafficking and slavery. Under our supply contracts, we have the right to audit all suppliers for compliance with our Supplier Code of Conduct. We also mandate annual employee training that covers human trafficking. This annual training emphasizes our requirement that our suppliers also must comply with the ARRIS Supplier Code of Conduct.

### **Employees**

As of January 31, 2018, we had approximately 8,700 employees. ARRIS has no employees represented by unions within the United States. We believe that we have a strong relationship with our employees. Our future success depends, in part, on our ability to attract and retain key personnel. Competition for qualified personnel is intense, and the loss of certain key personnel could have a material adverse effect on us. We have entered into employment contracts with our key executive officers and have confidentiality agreements with substantially all our employees. We also have long-term incentive programs that are intended to provide substantial incentives for our key employees to remain with us.

### **Item 1A. Risk Factors**

***Our business is dependent on customers' capital spending on broadband communication systems, and reductions by customers in capital spending would adversely affect our business.***

Our performance is primarily dependent on customers' capital spending for constructing, rebuilding, maintaining or upgrading broadband communications systems. Capital spending in the broadband communications industry is cyclical and can be curtailed or deferred on short notice. A variety of factors affect capital spending, and, therefore, our sales and profits, including:

- demand for network services;
- general economic conditions;
- foreign currency fluctuations;
- competition from other providers of broadband and high-speed services;
- customer specific financial or stock market conditions;
- availability and cost of capital;
- governmental regulations;
- customer acceptance of new services offered; and
- real or perceived trends or uncertainties in these factors.

Several of our customers have accumulated significant levels of debt. These high debt levels, coupled with the volatility in the capital markets, may impact their access to capital in the future. Even if the financial health of our customers remains intact, these customers may not purchase new equipment at levels we have seen in the

past or expect in the future. We cannot predict the impact, if any, of any softening or downturn in the national or global economy or of specific customer financial challenges on our customers' expansion and maintenance expenditures.

***The markets on which our business is focused is significantly impacted by technological change.***

The broadcast and broadband communication systems industry has gone through dramatic technological change resulting in service providers rapidly migrating their business from a one-way television service to a two-way communications network enabling multiple services, such as residential and business high-speed Internet access, residential and business telephony services, digital television, video on demand and advertising services. New services, such as home security, power monitoring and control, and 4K (UHD) television that are or may be offered by service providers, are also based on, and will be characterized by, rapidly evolving technology. The development of increasing transmission speed, density and bandwidth for Internet traffic has also enabled the provision of high quality, feature length video over the Internet. This over-the-top IP video service enables content providers such as Netflix and Hulu, programmers such as HBO and ESPN and portals like Google to provide video services on-demand, by-passing traditional video service providers. As these service providers enhance their quality and scalability, many are also introducing similar OTT services over their existing networks, for delivery not only to televisions but to computers, tablets, and telephones to remain competitive. In addition, service providers continue to explore ways to virtualize portions of their networks, reducing dependence on specifically designed equipment, including our products, by utilizing software that provide the same functions. We must retain skilled and experienced personnel, as well as deploy substantial resources to meet the changing demands of the industry and must be nimble to be able to capitalize on change.

We compete with international, national and regional manufacturers, distributors and wholesalers including some companies that are larger than we are. In some instances, our customers themselves may be our competition. Some of our customers may develop their own software requiring support within our products and/or may design and develop products of their own which are produced to their own specifications directly by a contract manufacturer.

Our business is dependent on our ability to develop products that enable current and new customers to exploit these rapid technological changes. To the extent that we are unable to adapt our technologies to serve these emerging demands, including obtaining necessary certifications from content providers and programmers to include their over-the-top video applications as part of our product offerings and software to provide virtualized network functions, our business may be adversely affected.

Another trend that could affect us is the emerging interest in Distributed Access Architectures, which disaggregates some of the functions of CCAP and the Access and Transport platforms to enable deployment of these functions in ways that could reduce operator capital expenditures. ARRIS is developing a line of DAA products but operators are not aligned on the specific implementations of DAA and ARRIS could lose market share to competitors. Service providers also have the goal of virtualizing CCAP management and control functions as they deploy DAA as well, potentially enabling new competitors to enter the market and reducing their dependence on ARRIS products.

The Wi-Fi and wireless networking markets for both service providers and enterprises is generally characterized by rapidly changing technology, changing end customer needs, evolving industry standards and frequent introductions of new products and services. To succeed, we must effectively anticipate, and adapt in a timely manner to, end customer requirements and continue to develop or acquire new products and features that meet market demands, technology trends and regulatory requirements. Likewise, if our competitors introduce new products and services that compete with ours, we may be required to reposition our product and service offerings or introduce new products and services in response to such competitive pressure. If we fail to develop new products or product enhancements, or our end customers or potential end customers do not perceive our products to have compelling technical advantages, our business could be adversely affected, particularly if our competitors are able to introduce solutions with such increased functionality earlier than we do. Developing our products is expensive, complex and involves uncertainties. Each phase in the development of our products presents serious

risks of failure, rework or delay, any one of which could impact the timing and cost-effective development of such product and could jeopardize end customer acceptance of the product. We have experienced in the past and may in the future experience design, manufacturing, marketing and other difficulties that could delay or prevent the development, introduction or marketing of new products and enhancements. In addition, the introduction of new or enhanced products requires that we carefully manage the transition from older products to minimize disruption in customer ordering practices and ensure that new products can be timely delivered to meet our customers' demand. As a result, we may not be successful in modifying our current products or introducing new products in a timely or appropriately responsive manner, or at all. If we fail to address these changes successfully, our business and operating results could be materially harmed.

***Consolidations in the broadcast and broadband communication systems industry could have a material adverse effect on our business.***

The broadcast and broadband communication systems industry historically has experienced, and continues to experience, the consolidation of many industry participants. For example, Vodafone announced it would merge its mobile operations in India with Idea Cellular, Wave Broadband announced it was consolidating with RCN under common ownership, Atlantic Broadband/Cogeco announced it would purchase MetroCast, Cable One bought NewWave Communications, T-Mobile US announced plans to acquire TV service provider Layer3, and Cablevision SA (Argentina) announced it would merge with Telecom Argentina SA. When consolidations occur, it is possible that the acquirer will not continue using the same suppliers, possibly resulting in an immediate or future elimination of sales opportunities for us. Even if sales are not reduced, consolidations also could result in delays in purchasing decisions by the affected companies prior to completion of the transaction. Further, even if we believe we will receive additional sales from a customer following a transaction as a result of, for example, typical network upgrades that follow combinations or otherwise, no assurance can be provided that such anticipated sales will be realized. In addition, consolidations can also result in increased pressure from customers for lower prices or better terms, reflecting the increase in the total volume of products purchased or the elimination of a price differential between the acquiring customer and the company acquired. Any of these results could have a material adverse effect on our business.

***We have significant indebtedness, which could limit our operations and opportunities, make it more difficult for us to pay or refinance our debts and/or may cause us to issue additional equity in the future, which would increase the dilution of our stockholders or reduce earnings.***

As of December 31, 2017, we had approximately \$2,161.4 million in total indebtedness and \$498.3 million available under our revolving line of credit to support our working capital needs. Our debt service obligations with respect to this indebtedness could have an adverse impact on our earnings and cash flows for as long as the indebtedness is outstanding.

This significant indebtedness also could have important consequences to stockholders. For example, it could:

- make it more difficult for us to pay or refinance our debts as they become due during adverse economic and industry conditions because any decrease in revenues could cause us to not have sufficient cash flows from operations to make our scheduled debt payments;
- limit our flexibility to pursue other strategic opportunities or react to changes in our business and the industry in which we operate and, consequently, place us at a competitive disadvantage to competitors with less debt;
- require a substantial portion of our cash flows from operations to be used for debt service payments, thereby reducing the availability of our cash flow to fund working capital, capital expenditures, acquisitions and other general corporate purposes; and
- result in higher interest expense in the event of increases in interest rates since the majority of our debt is subject to variable rates.

Based upon current levels of operations, we expect to be able to generate sufficient cash on a consolidated basis to make all the principal and interest payments on our indebtedness when such payments are due, but there can be no assurance that we will be able to repay or refinance such borrowings and obligations.

We may consider it appropriate to reduce the amount of indebtedness currently outstanding. This may be accomplished in several ways, including issuing additional ordinary shares or securities convertible into ordinary shares, reducing discretionary uses of cash or a combination of these and other measures. Issuances of additional ordinary shares or securities convertible into ordinary shares would have the effect of diluting the ownership percentage that stockholders will hold in the company and may reduce our reported earnings per share.

***We face risks relating to currency fluctuations and currency exchange.***

On an ongoing basis we are exposed to various changes in foreign currency rates because certain sales are denominated in foreign currencies. Additionally, certain intercompany transactions are denominated in foreign currencies and subject to revaluation. These changes can impact our results of operations, cash flows and financial position. We manage these risks through regular operating and financing activities and periodically use derivative financial instruments such as foreign exchange forward and option contracts. There can be no assurance that our risk management strategies will be effective. In addition, many of our international customers make purchases from us that are denominated in U.S. dollars. During periods where the U.S. dollar strengthens, it may impact these customers' ability to purchase products, which could have a material impact on our sales in the affected countries.

We also may encounter difficulties in converting our earnings from international operations to U.S. dollars for use in the United States. These obstacles may include problems moving funds out of the countries in which the funds were earned and difficulties in collecting accounts receivable in foreign countries where the usual accounts receivable payment cycle is longer.

***We may have difficulty in forecasting our sales and may experience volatility in revenues and inventory levels.***

Because a significant portion of our customers' purchases are discretionary, accurately forecasting our sales is difficult. In addition, our customers have increasingly submitted their purchase orders less evenly over the course of each quarter, and with shorter lead times than they have historically. The combination of our dependence on relatively few key customers and the award by those customers of irregular but sizeable orders, together with the size of our operations, make it difficult to forecast sales and can result in revenue volatility, which could further result in maintaining inventory levels that are not optimal for our ultimate needs and could have a negative impact on our business.

We also have outstanding warrants with a customer to purchase our ordinary shares. Vesting of the warrants is subject to both the volume of purchases by the customers and product mix. Under applicable accounting guidance, if we believe that vesting of a tranche of the warrants is probable, we are required to mark-to-market the fair value of the warrant until it vests, and any change in the fair value is treated as a change in revenues from sales to the customers. The amount of the change in revenues that will be recorded is difficult to predict as both sales to the customers and changes in our stock price impact the calculation and are outside of our control. As a result, the warrants also could increase our revenue volatility.

***Our gross margins and operating margins will vary over time, and our aggregate gross margin may decrease from historical levels.***

We expect our product gross margins to vary over time, and the aggregate gross margin we have achieved in recent years may continue to decrease and be adversely affected in the future by numerous factors, including customer, product and geographic mix shifts, the introduction of new products, customer acceptance of designed products with a lower cost to us, fluctuations in our license sales or services we provide, changes in the actions of our competitors, currency fluctuations that impact our costs or the cost of our products and services to our customers, increases in material, labor, or inventory carrying costs, and increased costs due to changes in component pricing, such as flash memory for our CPE products. We will continue to focus on increasing revenues and

operating margins and managing our operating expenses; however, no assurance can be provided that we will be able to achieve all or any of these goals.

***Changes to United States tax, tariff and import/export regulations may have a negative effect on global economic conditions, financial markets and our business.***

There has been on-going discussion and commentary regarding potential significant changes to United States trade policies, treaties, tariffs and taxes. We do a material amount of business around the world, and a substantial majority of our products are manufactured outside of the United States. The current administration, along with Congress, has created significant uncertainty about the future relationship between the United States and other countries with respect to the trade policies, treaties, taxes, government regulations and tariffs that would be applicable. These developments, or the perception that any of them could occur, may have a material adverse effect on global economic conditions and the stability of global financial markets, and may significantly reduce global trade and, in particular, trade between the impacted nations and the United States. Any of these factors could depress economic activity and restrict our access to suppliers or customers and have a material adverse effect on our business, financial condition and results of operations.

***The IRS may not agree that we are a foreign corporation for U.S. federal income tax purposes.***

Following the Pace combination, we are incorporated under the laws of England and Wales and are a tax resident in the United Kingdom for U.K. tax purposes, the IRS may assert that we should be treated as a U.S. corporation (and, therefore, a U.S. tax resident) for U.S. federal income tax purposes. For U.S. federal income tax purposes, a corporation generally is considered to be a tax resident in the jurisdiction of its organization or incorporation. Because we are incorporated under the laws of England and Wales, we generally would be classified as a non-U.S. corporation (and, therefore, a non-U.S. tax resident) under these rules. Section 7874 of the Internal Revenue Code of 1986, as amended (the “Code”), however, provides an exception to this general rule under which a foreign incorporated entity may, in certain circumstances, be treated as a U.S. corporation for U.S. federal income tax purposes.

Generally, for us to be treated as a non-U.S. corporation for U.S. federal income tax purposes under Section 7874, the former stockholders of ARRIS Group must own (within the meaning of Section 7874) less than 80% (by both vote and value) of all of the outstanding shares of ARRIS (the “Ownership Test”). Based on the terms of the Pace combination, we believe historic ARRIS stockholders owned less than 80% of all the outstanding shares in ARRIS and, thus, the Ownership Test has been satisfied. However, ownership for purposes of Section 7874 is subject to various adjustments under the Code and the Treasury Regulations promulgated thereunder, and there is limited guidance regarding the Section 7874 provisions, including regarding the application of the Ownership Test. There can be no assurance that the IRS will agree with the position that the Ownership Test was satisfied following the Pace combination and/or would not successfully challenge the status of ARRIS as a non-U.S. corporation for U.S. federal income tax purposes.

If we were to be treated as a U.S. corporation for U.S. federal income tax purposes, we could be subject to substantial additional U.S. taxes. For U.K. tax purposes, we are expected, regardless of any application of Section 7874, to be treated as a U.K. tax resident. Consequently, if we are treated as a U.S. corporation for U.S. federal income tax purposes under Section 7874, we could be liable for both U.S. and U.K. taxes, which could have a material adverse effect on our financial condition and results of operations.

***Our status as a foreign corporation for U.S. tax purposes could be affected by a change in law.***

Under current law, we expect to be treated as a non-U.S. corporation for U.S. federal income tax purposes. However, changes to Section 7874 or the Treasury Regulations promulgated thereunder, or other changes in law, could adversely affect our status as a non-U.S. corporation for U.S. federal income tax purposes, our effective tax rate and/or future tax planning, and any such changes could have prospective or retroactive application to us and our stockholders.

In 2016, the U.S. Treasury issued proposed and temporary Regulations under Section 7874 and other sections of the Code, which, among other things, make it more difficult for the Ownership Test to be satisfied and would limit or eliminate certain tax benefits to so-called inverted corporations. These temporary Regulations generally apply to transactions occurring on or after April 4, 2016. Accordingly, with respect to the Pace combination, as it occurred prior to that date, we do not expect these temporary Regulations to adversely affect the tax status of ARRIS. However, these Regulations, among other things, may affect how, or limit options for how, ARRIS will be able to structure future acquisitions. We continue to monitor this situation, we will review any comments on these proposed Regulations that are made public, we will review the final Regulations when issued, and we will review any additional guidance issued by the U.S. Treasury and the IRS. Any such future guidance could have a material adverse impact on our financial position and results of operations.

***Section 7874 of the Code may limit our ability to utilize certain U.S. tax attributes.***

Following the acquisition of a U.S. corporation by a non-U.S. corporation, Section 7874 of the Code can limit the ability of the acquired U.S. corporation and its U.S. affiliates to utilize certain U.S. tax attributes (including net operating losses and certain tax credits) to offset, during the ten-year period following the acquisition, their U.S. taxable income, or related income tax liability, resulting from certain (a) transfers to related foreign persons of stock or other properties of the acquired U.S. corporation and its U.S. affiliates and (b) income received or accrued from related foreign persons during such period by reason of a license of any property by the acquired U.S. corporation and its U.S. affiliates (collectively, “inversion gain”). Based on the limited guidance available and as a result of the Pace transaction, we believe that this limitation under Section 7874 will apply and, as a result, we do not currently expect that the Company or its U.S. affiliates will be able to utilize certain U.S. tax attributes to reduce the amount of any inversion gain and/or to offset applicable U.S. federal income tax liability attributable to any inversion, but may continue to be used to reduce our taxable income from ordinary operations.

***Changes to, interpretations of, and rulings related to, U.S., U.K., Luxembourg and other tax laws could adversely affect ARRIS.***

Our business operations are subject to taxation in the U.S., U.K., Luxembourg and a number of other jurisdictions. Changes in tax laws or tax rulings, or changes in interpretations of existing laws, could materially affect our financial position and results from operations. Recently, the U.S. Congress, the Organization for Economic Co-operation and Development and other government agencies in jurisdictions where ARRIS and its affiliates do business have had an extended focus on issues related to the taxation of multinational corporations. One example is in the area of “base erosion and profit shifting,” including situations where payments are made between affiliates from a jurisdiction with high tax rates to a jurisdiction with lower tax rates. In this regard, on December 22, 2017, the President signed into law the “Tax Cuts and Jobs Act” (the “Act”). The Act significantly reforms the Internal Revenue Code of 1986, as amended. The Act, among other things, includes changes to U.S. federal tax rates, imposes significant additional limitations on the deductibility of interest, imposes limitations on the deductibility of certain payments between affiliates, allows for the immediate expensing of certain capital expenditures, and puts into effect the migration from a worldwide system of taxation to a territorial system and imposes several other changes to tax law on U.S. corporations. As many of the provisions of the Act do not come into effect until 2018 and further clarification of the law is expected, the total impact on our financial position is uncertain and could be materially adverse.

Another example involves “illegal state aid” as determined by the EU Competition Commission, which would require EU member states to recover unlawful aid given to multinational enterprises in the form of favorable transfer pricing treatment. As a result, the tax laws, and the interpretation thereof, in the United States, the United Kingdom, Luxembourg and other countries in which ARRIS and its affiliates do business could change on a prospective or retroactive basis, including as part of the treaty changes that could result from the U.K.’s decision to leave the EU, and any such changes could adversely affect ARRIS and its affiliates. Further, the IRS or other applicable taxing authorities may disagree with positions we have taken in our tax filings, which could result in the requirement to pay additional tax, interest and penalties, which amounts could be significant.

***Proposed changes to U.S. Model Income Tax Treaty could adversely affect ARRIS.***

On May 20, 2015, the U.S. Treasury released proposed revisions to the U.S. model income tax convention (the “Model”), the baseline text used by the U.S. Treasury to negotiate tax treaties. The proposed revisions address certain aspects of the Model by modifying existing provisions and introducing entirely new provisions. Specifically, the proposed revisions target (1) exempt permanent establishments, (2) special tax regimes, (3) expatriated entities, (4) the anti-treaty shopping measures of the limitation on benefits article, and (5) subsequent changes in treaty partners’ tax laws.

With respect to the proposed changes to the Model pertaining to expatriated entities, because the Pace combination is otherwise subject to Section 7874, if applicable treaties were subsequently amended to adopt such proposed changes, payments of interest, dividends, royalties and certain other items of income by ARRIS U.S. Holdings, Inc. (our primary U.S. holding company) or its U.S. affiliates to non-U.S. persons would become subject to full U.S. withholding tax at a 30% rate. This could result in material U.S. taxes being paid by recipients of payments from ARRIS Holdings and its U.S. affiliates. Additionally, revisions to the Model may influence the international community’s discussion of approaches to treaty abuse and harmful tax practices with respect to the Organization for Economic Cooperation and Development’s ongoing work regarding base erosion and profit shifting. We are unable to predict the likelihood that the proposed revisions to the Model become a part of the Model or any U.S. income tax treaty. However, any revisions to a U.S. income tax treaty, including the proposed revisions described in this paragraph, could adversely affect ARRIS and its affiliates.

***Consequences of the UK’s delivering notice to leave the European Union could materially adversely affect our business.***

In March 2017, the U.K. government delivered formal notice of its intention to withdraw from the European Union. As a result, it now has up to two years to negotiate the terms of its exit, unless all the remaining member states of the European Union agree to an extension. Given the lack of precedent, it is unclear how the withdrawal of the U.K. from the European Union will affect the U.K.’s access to the EU Single Market and other important financial and trade relationships and how it will affect us. The withdrawal could, among other outcomes, disrupt the free movement of goods, services and people between the U.K. and the European Union, undermine bilateral cooperation in key policy areas and significantly disrupt trade between the U.K. and the European Union. Additionally, absent planning and restructuring, the withdrawal will impact the application of the limitation on benefit clause under Article 24 of the U.S. – Luxembourg tax treaty to impose a full U.S. withholding tax at a 30% rate on certain payments made by ARRIS Holdings. Under current European Union rules, following the withdrawal the U.K. will not be able to negotiate bilateral trade agreements with member states of the European Union. In addition, a withdrawal of the U.K. from the European Union could significantly affect the fiscal, monetary, legal and regulatory landscape within the U.K. and could have a material impact on its economy and the future growth of its various industries, including the broadcast and broadband communication systems industry in which we operate. Although it is not possible to predict fully the effects of the withdrawal of the U.K. from the European Union, the possible exit of the U.K. from the European Union or prolonged periods of uncertainty in relation to it could have a material adverse effect on our business and our results of operations.

***Although certain technical problems experienced by users may not be caused by our products, our business and reputation may be harmed if users perceive our products as the cause of a slow or unreliable network connection, or a high-profile network failure.***

Our products have been deployed in many different locations and user environments and are capable of providing services and connectivity to many different types of devices operating a variety of applications. The ability of our products to operate effectively can be negatively impacted by many different elements unrelated to our products. For example, a user’s experience may suffer from an incorrect setting in a Wi-Fi device. Although certain technical problems experienced by users may not be caused by our products, users often may perceive the underlying cause to be a result of poor performance of the wireless network. This perception, even if incorrect, could harm our business and reputation. Similarly, a high-profile network failure may be caused by improper



operation of the network or failure of a network component that we did not supply, but other service providers may perceive that our products were implicated, which, even if incorrect, could harm our business, operating results and financial condition.

***If our Enterprise segment products do not interoperate with cellular networks and mobile devices, future sales of our products could be negatively affected.***

Our Enterprise segment products are designed to interoperate with cellular networks and mobile devices using Wi-Fi technology. These networks and devices have varied and complex specifications. As a result, we must attempt to ensure that our products interoperate effectively with these existing and planned networks and devices. To meet these requirements, we must continue to undertake development and testing efforts that require significant capital and employee resources. We may not accomplish these development efforts quickly or cost-effectively, or at all. If our products do not interoperate effectively, orders for our products could be delayed or cancelled, which would harm our revenue, operating results and our reputation, potentially resulting in the loss of existing and potential end customers. The failure of our products to interoperate effectively with cellular networks or mobile devices may result in significant warranty, support and repair costs, divert the attention of our engineering personnel from our product development efforts and cause significant customer relations problems. In addition, our end customers may require our products to comply with new and rapidly evolving security or other certifications and standards. If our products are late in achieving or fail to achieve compliance with these certifications and standards, or our competitors achieve compliance with these certifications and standards, such end customers may not purchase our products, which would harm our business, operating results and financial condition.

***The continued industry move to open standards may impact our future results.***

Our industry has and will continue to demand products based on open standards. The move toward open standards is expected to increase the number of providers that will offer services to the market. This trend is also expected to increase the number of competitors who are able to supply products to service providers and the enterprise market and drive down the capital costs. These factors may adversely impact both our future revenues and margins. In addition, many of our customers participate in “technology pools” and increasingly request that we donate a portion of our source code used by the customer to these pools, which may impact our ability to recapture the R&D investment made in developing such code.

We believe that we will be increasingly required to work with third party technology providers. As a result, we expect the shift to more open standards may require us to license software and other components indirectly to third parties via various open source or royalty-free licenses. In some circumstances, our use of such open source technology may include technology or protocols developed by standards settings bodies, other industry forums or third-party companies. The terms of the open source licenses granted by such parties, or the granting of royalty-free licenses, may limit our ability to commercialize products that utilize such technology, which could have a material adverse effect on our results.

***Our business is concentrated in a couple key customers. The loss of any of these customers or a significant reduction in sales to any of these customers would have a material adverse effect on our business.***

For the year ended December 31, 2017, sales to our two largest customers (including their affiliates, as applicable) accounted for approximately 37% of our total revenue. The loss of any of our large customers, or a significant reduction in the products or services provided to any of them would have a material adverse impact on our business. For many of these customers, we also are one of their largest suppliers. As a result, if from time-to-time customers elect to purchase products from our competitors in order to diversify their supplier base and to dual-source key products or to curtail purchasing due to budgetary or market conditions, such decisions could have material consequences to our business. In addition, because of the magnitude of our sales to these customers, the terms and timing of our sales are heavily negotiated, and even minor changes can have a significant impact upon our business.

Also, many of our service provider or larger enterprise customers have substantial purchasing power and leverage in negotiating contractual arrangements with us. These end customers may require us to develop additional product features, may require penalties for non-performance of certain obligations, such as delivery, outages or response time. The leverage held by these large end customers could result in lower revenues and gross margins. The loss of a single large end customer could materially harm our business and operating results.

***Our Enterprise Networks segment sales may be impacted as a result of changes in public funding for the Federal Government and educational institutions.***

Customers in the Enterprise Networks segment include agencies of the U.S. Federal Government and both public and private K-12 institutions in the United States. These markets typically operate on limited budgets and depend on the U.S. federal government to provide supplemental funding. For example, the Federal Communications Commission, or FCC, through its E-rate program (also known as the Schools and Libraries Program of the Universal Service Fund), provides supplemental funding to school districts to fund upgrades to technical infrastructure, including Wi-Fi infrastructure. The most recently announced order under the E-rate program provides for a significant increase to the annual E-rate funding cap, to \$3.9 billion with inflation adjustments annually, and increases funding availability from a two-year period to five-year period. However, the E-rate program continues to be subject to uncertainty regarding eligibility criteria and specific timing of actual federal funding as well as subject to further federal program guidelines and funding appropriation. This uncertainty and potential further changes to the E-rate program may affect or delay purchasing decisions by our end customers in the education market and will continue to cause fluctuations in our overall revenue forecasts and financial results and create greater uncertainty regarding the level of customer orders in this market during the term of the E-rate program. Similarly, fluctuations in the annual budgeting process for U.S. Federal Government IT spending may result in deferral or cancellation of projects from which ARRIS expected to derive revenue for the Enterprise Networks segment.

***We may face higher costs associated with protecting our intellectual property or obtaining necessary access to the intellectual property of others.***

Our future success depends in part upon our proprietary technology, product development, technological expertise and distribution channels, in addition to a number of important patents and licenses. We cannot predict whether we can protect our technology or whether competitors will be able to develop similar technology independently, and such technology could be subject to challenge, unlawful copying or other unfair competitive practices. Given the dependence on technology within the market in which we compete, there are frequent claims and related litigation regarding patent and other intellectual property rights. We have received, directly or indirectly, and expect to continue to receive, from third parties, including some of our competitors, notices claiming that we, or our customers using our products, have infringed upon third-party patents or other proprietary rights. We are involved in several proceedings (and other proceedings have been threatened) in which our customers were sued for patent infringement. (See Part II, Item 1, “Legal Proceedings”) In these cases our customers have made claims against us and other suppliers for indemnification. We may become involved in similar litigation involving these and other customers in the future. These claims, regardless of their merit, could result in costly litigation, divert the time, attention and resources of our management, delay our product shipments, and, in some cases, require us to enter into royalty or licensing agreements. If a claim of patent infringement against us or our customer is successful and we fail to obtain a license or develop non-infringing technology, we or our customer may be prohibited from marketing or selling products containing the infringing technology which could materially affect our business and operating results. In addition, the payment of any damages or any necessary licensing fees or indemnification costs associated with a patent infringement claim could be material and could also materially adversely affect our operating results.

***We may not realize the anticipated benefits of past or future acquisitions, divestitures, and strategic investments, including the recently completed Ruckus Networks acquisition, and the integration of acquired companies or technologies or divestiture of businesses may negatively impact our business and financial results.***

We have acquired or made strategic investments in other companies, products, or technologies, and expect to make additional acquisitions and strategic investments in the future. For example, in 2016, we acquired Pace and sold our whole-home solutions business, and in December 2017, we acquired the Ruckus Networks business. Our ability to realize the anticipated benefits from acquisitions and strategic investments involves numerous risks, including, but not limited to, the following:

- The ability to satisfy closing conditions necessary to complete an acquisition, including receipt of applicable regulatory approvals;
- Difficulties in successfully integrating the acquired businesses and realizing any expected synergies, including failure to integrate successfully the sales organizations;
- Unanticipated costs, litigation, and other contingent liabilities;
- Diversion of management's attention from our daily operations and business;
- Adverse effects on existing business relationships with customers and suppliers;
- Risks associated with entering into markets in which we have limited or no prior experience;
- Inability to attract and retain key employees; and
- The impact of acquisition and integration related costs, goodwill or in-process research and development impairment charges, amortization costs for acquired intangible assets, and acquisition accounting treatment, including the loss of deferred revenue and increases in the fair values of inventory and other acquired assets, on our GAAP operating results and financial condition.

The Ruckus Networks acquisition has resulted in an expansion on our current technologies, and we have established a new business unit to focus on this business. The expansion into new technologies, markets and distributions where we have not previously operated may not be successful and may adversely impact our ability to realize the benefits of the acquisition in the time expected or at all.

We may also divest or reduce our investment in certain businesses or product lines from time to time. Such divestitures involve risks, such as difficulty separating portions of our business, distracting employees, incurring potential loss of revenue, negatively impacting margins, and potentially disrupting customer relationships. We may also incur significant costs associated with exit or disposal activities, related impairment charges, or both.

***We have substantial goodwill and amortizable intangible assets.***

Our financial statements reflect substantial goodwill and intangible assets, approximately \$2.3 billion and \$1.8 billion, respectively, as of December 31, 2017, that was recognized in connection with acquisitions, including the recently completed Ruckus Networks acquisition.

We annually (and more frequently if changes in circumstances indicate that the asset may be impaired) review the carrying amount of our goodwill to determine whether it has been impaired for accounting purposes. In general, if the fair value of the corresponding reporting unit is less than the carrying amount of the reporting unit, we record an impairment. The determination of fair value is dependent upon a number of factors, including assumptions about future cash flows and growth rates that are based on our current and long-term business plans. With respect to the amortizable intangible assets, we test recoverability when events or changes in circumstances indicate that their carrying amounts may not be recoverable. Examples of such circumstances include, but are not limited to, operating or cash flow losses from the use of such assets or changes in our intended uses of such assets. If we determine that an asset or asset group is not recoverable, then we would record an impairment

charge if the carrying amount of the asset or asset group exceeds its fair value. Fair value is based on estimated discounted future cash flows expected to be generated by the asset or asset group. The assumptions underlying cash flow projections would represent management's best estimates at the time of the impairment review.

As the ongoing expected cash flows and carrying amounts of our remaining goodwill and intangible assets are assessed, changes in the economic conditions, changes to our business strategy, changes in operating performance or other indicators of impairment could cause us to realize impairment charges in the future, including as a result of restructuring undertaken in connection with the integration of acquisitions.

As of October 1, 2017, the fair value of our CPE reporting unit exceeded its carrying amount by 34% and, accordingly, did not result in a goodwill impairment. Over the last twelve months, near-term trends impacting revenue and gross margin, including higher product costs associated with memory pricing pressures have decreased the amount by which the fair value exceeds the carrying amount, such that our CPE reporting unit could be at risk of failing step one of the impairment test if future projections are not realized. The estimated fair value of our CPE reporting unit is closely aligned with the ultimate amount of revenue and operating income that it achieves over the projection period. At this time, our projections assume modest revenue growth and some recovery in gross margins over current levels in subsequent years. Our CPE reporting unit has approximately \$1.4 billion of goodwill as of December 31, 2017.

During the fourth quarter of 2017, we determined the carrying amount of our Cloud TV reporting unit associated with our ActiveVideo acquisition exceeded its fair value, and as such have recorded a partial goodwill impairment of \$51.2 million as of December 31, 2017, of which \$17.9 million is attributable to noncontrolling interest.

In addition, the Company will adopt new guidance on revenue recognition as of January 1, 2018. As a result of retrospective application of this guidance in our Cloud TV reporting unit, an additional goodwill impairment of approximately \$5 million to \$8 million is expected to be recognized in first quarter of 2018 resulting from the indirect effect of the change in accounting principle, effecting changes in the composition and carrying amount of the net assets.

We continue to evaluate the anticipated discounted cash flows from the Cloud TV reporting unit. If current long-term projections for this unit are not realized or materially decrease, we may be required to write off all or a portion of the remaining \$30 million of goodwill and \$30 million of associated intangible assets.

If we determine an impairment exists, we may be required to write off all or a portion of the goodwill and associated intangible assets related to any impaired business. For additional information, see the discussion under "Critical Accounting Policies" in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

***Products currently under development may fail to realize anticipated benefits.***

Rapidly changing technologies, evolving industry standards, frequent new product introductions and relatively short product life cycles characterize the markets for our products. The technology applications that we currently are developing are subject to technological, supply chain, product development and other related risks that could delay successful delivery. The market in which we operate is subject to a rapid rate of technological change, reflected in increased development and manufacturing complexity and increasingly demanding customer requirements, all of which can result in unforeseen delivery problems. Even if the products in development are successfully brought to market, they may be late, may not be widely used or we may not be able to capitalize successfully on the developed technology. To compete successfully, we must quickly design, develop, manufacture and sell new or enhanced products that provide increasingly higher levels of performance and reliability. However, we may not be able to develop or introduce these products successfully if such products:

- are not cost-effective;

- are not brought to market in a timely manner;
- fail to achieve market acceptance; or
- fail to meet industry certification standards.

Furthermore, our competitors may develop similar or alternative technologies that, if successful, could have a material adverse effect on us. Our strategic alliances are generally based on business relationships that have not been the subject of written agreements expressly providing for the alliance to continue for a significant period of time and the loss of any such strategic relationship could have a material adverse effect on our business and results of operations.

***Defects within our products could have a material impact on our results.***

Many of our products are complex technology that include both hardware and software components. It is not unusual for software, especially in earlier versions, to contain bugs that can unexpectedly interfere with expected operations. While we employ rigorous testing prior to the shipment of our products, defects, including those resulting from components we purchase, can still occur from time to time. Product defects, including hardware failures, could impact our reputation with our customers which may result in fewer sales. In addition, depending on the number of products affected, the cost of fixing or replacing such products could have a material impact on our operating results. In some cases, we are dependent on a sole supplier for components used in our products. Defects in sole-sourced components subject us to additional risk of being able to quickly address any product issues or failures experienced by our customers as a result of the component defect and could delay our ability to deliver new products until the defective components are corrected or a new supplier is identified and qualified. This could increase our costs in resolving the product issue, result in decreased sales of the impacted product, or damage our reputation with customers, any of which could have the effect of negatively impacting our operating results.

Hardware or software defects could also permit unauthorized users to gain access to our customers' networks and/or a consumer's home network. In addition to potentially damaging our reputation with customers, such defects may also subject us to claims for damages under agreements with our customers and subject us to fines by regulatory authorities.

We offer warranties of various lengths to our customers on many of our products and have established warranty reserves based on, among other things, our historic experience, failure rates and cost to repair. In the event of a significant non-recurring product failure, the amount of the warranty reserve may not be sufficient. From time to time we may also make repairs on defects that occur outside of the provided warranty period. Such costs would not be covered by the established reserves and, depending on the volume of any such repairs, may have a material adverse effect on our results from operations or financial condition.

***Our success depends on our ability to attract and retain qualified personnel in all facets of our operations.***

Competition for qualified personnel is intense, and we may not be successful in attracting and retaining key personnel, which could impact our ability to maintain and grow our operations. Our future success will depend, to a significant extent, on the ability of our management to operate effectively. In the past, competitors and others have attempted to recruit our employees and their attempts may continue. The loss of services of any key personnel, the inability to attract and retain qualified personnel in the future or delays in hiring required personnel, particularly engineers and other technical professionals, could negatively affect our business.

***Our ability to sell our products is highly dependent on the quality of our support and services offerings, and our failure to offer high quality support and services would have a material adverse effect on our sales and results of operations.***

Once our products are deployed, our channel partners and end customers depend on our support organization to resolve any issues relating to our products. A high level of support is important for the successful

marketing and sale of our products. In many cases, our channel partners provide support directly to our end-customers. We do not have complete control over the level or quality of support provided by our channel partners. These channel partners may also provide support for other third-party products, which may potentially distract resources from support for our products. If we and our channel partners do not effectively assist our end customers in deploying our products, succeed in helping our end customers quickly resolve post-deployment issues or provide effective ongoing support, it would adversely affect our ability to sell our products to existing end-customers and could harm our reputation with potential end customers. In some cases, we guarantee a certain level of performance to our channel partners and end customers, which could prove to be resource-intensive and expensive for us to fulfill if unforeseen technical problems were to arise.

Many of our service provider and large enterprise end customers have more complex networks and require higher levels of support than our smaller end customers. If our support organization fails to meet the requirements of our service provider or large enterprise end customers, it may be more difficult to execute on our strategy to increase our sales to large end customers. In addition, given the extent of our international operations, our support organization faces challenges, including those associated with delivering support, training and documentation in languages other than English. As a result of these factors, our failure to maintain high quality support and services would have a material adverse effect on our business, operating results and financial condition.

***We are dependent on a limited number of suppliers, and inability to obtain adequate and timely delivery of supplies could have a material adverse effect on our business.***

Many components, subassemblies and modules necessary for the manufacture or integration of our products are obtained from a sole supplier or a limited group of suppliers. Likewise, we have only a limited number of potential suppliers for certain materials and hardware used in our products, and a number of our agreements with suppliers are short-term in nature. Our reliance on sole or limited suppliers, particularly foreign suppliers, and our reliance on subcontractors involves several risks including a potential inability to obtain an adequate supply of required components, subassemblies, modules and other materials and reduced control over pricing, quality and timely delivery of components, subassemblies, modules and other products. An inability to obtain adequate deliveries or any other circumstance that would require us to seek alternative sources of supply could affect our ability to ship products on a timely basis which could damage relationships with current and prospective customers and potentially have a material adverse effect on our business. Our ability to ship products could also be impacted by country laws and/or union labor disruptions. Disputes of this nature may have a material impact on our financial results.

***Where we rely on third parties to manufacture our products, our ability to supply products to our customers may be disrupted.***

We outsource the majority of the manufacturing of our products to third-party manufacturers. Our reliance on these third-party manufacturers reduces our control over the manufacturing process and exposes us to risks, including reduced control over quality assurance, product costs, and product supply and timing. Any manufacturing disruption by these third-party manufacturers could severely impair our ability to fulfill orders. Our reliance on outsourced manufacturers also yields the potential for infringement or misappropriation of our intellectual property. If we are unable to manage our relationships with these third-party manufacturers effectively, or if these third-party manufacturers suffer delays or disruptions for any reason, experience increased manufacturing lead-times, capacity constraints or quality control problems in their manufacturing operations, or fail to meet our future requirements for timely delivery, our ability to ship products to our customers may be severely impaired, and our business and operating results could be seriously harmed.

These manufacturers typically fulfill our supply requirements on the basis of individual orders. We do not have long term contracts with our third-party manufacturers that guarantee capacity, the continuation of particular pricing terms or the extension of credit limits. Accordingly, our third-party manufacturers are not obligated to continue to fulfill our supply requirements, which could result in supply shortages, and the prices we are

charged for manufacturing services could be increased on short notice. In addition, as a result of fluctuating global financial market conditions, natural disasters or other causes, it is possible that any of our manufacturers could experience interruptions in production, cease operations or alter our current arrangements. If our manufacturers are unable or unwilling to continue manufacturing our products in required volumes, we will be required to identify one or more acceptable alternative manufacturers. It is time-consuming and costly and could be impractical to begin to use new manufacturers, and changes in our third-party manufacturers may cause significant interruptions in supply if the new manufacturers have difficulty manufacturing products to our specification. As a result, our ability to meet our scheduled product deliveries to our customers could be adversely affected, which could cause the loss of sales to existing or potential customers, delayed revenue or an increase in our costs. Any production interruptions for any reason, such as a natural disaster, epidemic, capacity shortages or quality problems, at one of our manufacturers would negatively affect sales of our product lines manufactured by that manufacturer and adversely affect our business and operating results.

***We are subject to the economic, political and social instability risks associated with doing business in certain foreign countries.***

For the year ended December 31, 2017, approximately 34.2% of our sales were made outside of the United States. In addition, a significant portion of our products are manufactured or assembled in Brazil, Mexico and Taiwan. As a result, we are exposed to risk of international operations, including:

- fluctuations in currency exchange rates;
- inflexible employee contracts or labor laws in the event of business downturns;
- compliance with United States and foreign laws concerning trade and employment practices;
- the challenges inherent in consistently maintaining compliance with the Foreign Corrupt Practice Act and similar laws in other jurisdictions;
- the imposition of government controls;
- difficulties in obtaining or complying with export license requirements;
- labor unrest, including strikes, and difficulties in staffing;
- security concerns;
- economic boycott for doing business in certain countries;
- coordinating communications among and managing international operations;
- currency controls;
- changes in tax and trade laws that increase our local costs;
- exposure to heightened corruption risks; and
- reduced protection for intellectual property rights.

Political instability and military and terrorist activities may have significant impacts on our customers' spending in these regions and can further enhance many of the risks identified above. Any of these risks could impact our sales, interfere with the operation of our facilities and result in reduced production, increased costs, or both, which could have an adverse effect on our financial results.

***We depend on channel partners to sell our products in certain regions and are subject to risks associated with these arrangements.***

We utilize distributors, value-added resellers, system integrators, and manufacturers' representatives to sell our products to certain customers and in certain geographic regions to improve our access to these customers and regions and to lower our overall cost of sales and post-sales support. Our sales through channel partners are subject to a number of risks, including:

- ability of our selected channel partners to effectively sell our products to end customers;
- our ability to continue channel partner arrangements into the future since most are for a limited term and subject to mutual agreement to extend;
- a reduction in gross margins realized on sale of our products;
- compliance by our channel partners with our policies and procedures as well as applicable laws; and
- a diminution of contact with end customers which, over time, could adversely impact our ability to develop new products that meet customers' evolving requirements.

***We depend on cloud computing infrastructure operated by third-parties and any disruption in these operations could adversely affect our business.***

For our service offerings, in particular our Wi-Fi-related cloud services, we rely on third-parties to provide cloud computing infrastructure that offers storage capabilities, data processing and other services. We currently operate our cloud-dependent services using Amazon Web Service ("AWS") or Google Compute Engine ("GCE"). We cannot easily switch our AWS or GCE operations to another cloud provider. Any disruption of or interference with our use of these cloud services would impact our operations and our business could be adversely impacted.

Problems faced by our third-party cloud services, with the telecommunications network providers with whom we or they contract, or with the systems by which our telecommunications providers allocate capacity among their customers, including us, could adversely affect the experience of our end customers. If AWS and GCE are unable to keep up with our needs for capacity, this could have an adverse effect on our business. Any changes in third-party cloud services or any errors, defects, disruptions, or other performance problems with our applications could adversely affect our reputation and may damage our end customers' stored files or result in lengthy interruptions in our services. Interruptions in our services might adversely affect our reputation and operating results, cause us to issue refunds or service credits, subject us to potential liabilities, or result in contract terminations.

***Because of the nature of information that may pass through or be stored on our solutions or networks, we and our end customers may be subject to complex and evolving U.S. and foreign laws and regulations regarding privacy, data protection and other matters and violations of these complex and dynamic laws, rules and regulations may result in claims, changes to our business practices, monetary penalties, increased costs of operations, and/or other harms to our business.***

There has been an increase in laws in Europe, the U.S. and elsewhere imposing requirements for the handling of personal data, including data of employees, consumers and business contacts as well as privacy-related matters. For example, several U.S. states have adopted legislation requiring companies to protect the security of personal information that they collect from consumers over the Internet, and more states may adopt similar legislation in the future. Foreign data protection, privacy, and other laws and regulations can be more restrictive than those in the U.S. In 2016 the EU Parliament approved the EU General Data Protection Regulation ("GDPR") which replaces the Data Protection Directive 95/46/EC. GDPR was designed to harmonize data privacy laws across Europe, to protect and empower all EU citizens data privacy and to reshape the way organizations across the region approach data privacy. Compliance with the GDPR will require changes to existing products, designs of future products, internal and external software systems, including our web sites, and changes to many company processes and policies. Failure to comply with GDPR, which becomes effective in May of 2018, could cause significant penalties and loss of business.



In addition, some countries are considering legislation requiring local storage and processing of data that, if enacted, could increase the cost and complexity of offering our solutions or maintaining our business operations in those jurisdictions. The introduction of new solutions or expansion of our activities in certain jurisdictions may subject us to additional laws and regulations. Our channel partners and end customers also may be subject to such laws and regulations in the use of our products and services.

These U.S. federal and state and foreign laws and regulations, which often can be enforced by private parties or government entities, are constantly evolving. In addition, the application and interpretation of these laws and regulations are often uncertain, and may be interpreted and applied inconsistently from country to country and inconsistently with our current policies and practices and may be contradictory with each other. For example, a government entity in one jurisdiction may demand the transfer of information forbidden from transfer by a government entity in another jurisdiction. If our actions were determined to be in violation of any of these disparate laws and regulations, in addition to the possibility of fines, we could be ordered to change our data practices, which could have an adverse effect on our business and results of operations and financial condition. There is also a risk that we, directly or as the result of a third-party service provider we use, could be found to have failed to comply with the laws or regulations applicable in a jurisdiction regarding the collection, consent, handling, transfer, or disposal of personal data, which could subject us to fines or other sanctions, as well as adverse reputational impact.

Compliance with these existing and proposed laws and regulations can be costly, increase our operating costs and require significant management time and attention, and failure to comply can result in negative publicity and subject us to inquiries or investigations, claims or other remedies, including fines or demands that we modify or cease existing business practices. Channel partners and end customers may demand or request additional functionality in our products or services that they believe are necessary or appropriate to comply with such laws and regulations, which can cause us to incur significant additional costs and can delay or impede the development of new solutions. In addition, there is a risk that failures in systems designed to protect private, personal or proprietary data held by us or our channel partners and end customers using our solutions will allow such data to be disclosed to or seen by others, resulting in application of regulatory penalties, enforcement actions, remediation obligations, private litigation by parties whose data were improperly disclosed, or claims from our channel partners and end customers for costs or damages they incur.

***The planned upgrade of our enterprise resource planning (“ERP”) software solution could result in significant disruptions to our operations.***

We have initiated the process of upgrading our ERP software solution to a newer, cloud-based version. We expect the upgrade to be completed in 2019. Implementation of the upgraded solution will have a significant impact on our business processes and information systems. The transition will require significant change management, meaningful investment in capital and personnel resources, and coordination of numerous software and system providers and internal business teams. We may experience difficulties as we manage these changes and transitions to the upgraded systems, including loss or corruption of data, delayed shipments, decreases in productivity as personnel implement and become familiar with new systems and processes, unanticipated expenses (including increased costs of implementation or costs of conducting business), and lost revenues. Difficulties in implementing the upgraded solution or significant system failures could disrupt our operations, divert management’s attention from key strategic initiatives, and have an adverse effect on our capital resources, financial condition, results of operations, or cash flows. In addition, any delays in completing the upgrade process could exacerbate these transition risks as well as expose us to additional risks in the event that the support for our existing ERP software solution is reduced or eliminated.

***The import of our products is subject to trade regulations and could be impacted by orders prohibiting the importation of products.***

The import of our products into the United States and certain other countries is subject to the trade regulations in the countries where they are imported. Products may be subject to customs duties that we pay to the

applicable government agency and then collect from our customers in connection with the sale of the imported products. The amount of the customs duty owed, if any, is based on classification of the products within the applicable customs regulations. A significant portion of our overall shipments import into the United States, any change to trade regulations may challenge our classifications and the amount of any duty or tax payable. While we believe that our products have been properly classified, the U.S. Customs Agency or other applicable foreign regulatory agencies, may challenge our classifications and the amount of any duty payable. For example, we currently have a case pending in the U.S. Court of International Trade regarding the challenge by the U.S. Customs Agency with respect to certain digital television adapters that we import into the United States and believe are duty free. If it is ultimately determined that a product has been misclassified for customs purposes, we may be required to pay additional duties for products previously imported and we may not be successful in collecting the increased duty from the customer that purchased the products. In addition, we could be required to pay interest and/or fines to the applicable regulator, which amounts could be significant and negatively impact our results of operations. Further, if we do not comply with the applicable trade regulations, delivery of products to customers may be delayed which could negatively impact our sales and results of operations.

From time to time, we, our customers and our suppliers, may be subject to proceedings at the U.S. International Trade Commission (the "ITC") with respect to alleged infringement of U.S. patents. If the ITC finds a party infringed a U.S. patent, it can issue an exclusion order barring importation into the United States of the product that infringes, or includes components, of the product that infringes the identified patents. For example, one of our customers was recently found by the ITC to infringe certain patents and the ITC has issued an order prohibiting us from importing the identified products, even though ARRIS products were found not to infringe the patents in question. The customer has appealed the ITC's decision and has also implemented changes in their system to disable the features found by the ITC to infringe the patent. We expect that U.S. Customs and Border Protection, which is in charge of enforcing the ITC exclusion order, will find that, as a result of the changes implemented by the customer, the products no longer infringe and we may import the products into the U.S. to sell to the customer. However, if the timing of the decision by U.S. Customs and Border Protection is delayed, or not provided at all, or if the appeal of the ITC decision is not successful, our revenues and results of operations would be significantly reduced.

***Our stock price has been and may continue to be volatile.***

Our ordinary shares are traded on The NASDAQ Global Select Market. The trading price of our shares has been and may continue to be subject to large fluctuations. Our stock price may increase or decrease in response to a number of events and factors including:

- future announcements concerning us, key customers or competitors;
- variations in operating results from period to period;
- changes in financial estimates and recommendations by securities analysts;
- developments with respect to technology or litigation;
- the operating and stock price performance of our competitors; and
- acquisitions and financings.

Fluctuations in the stock market, generally, also impact the volatility of our stock price. General stock market movements may adversely affect the price of our ordinary shares, regardless of our operating performance. Volatility in our stock price will also impact the fair value determination of our outstanding warrants with customers. A significant increase in our stock price while we are required to mark-to-market the fair value of the outstanding warrants to customers may increase the reduction in revenues we are required to record under the required accounting treatment for the warrants which could have a significant impact on our operating results.

***Our business is subject to the risks of earthquakes, fire, floods and other natural catastrophic events, and to interruption by manmade problems such as network security breaches, computer software or system errors or viruses, or terrorism.***

We and our contract manufacturers maintain facilities in many areas known for seismic activity including the San Francisco Bay Area and eastern Asia. A significant natural disaster, such as an earthquake, a fire or a flood, occurring near any of our major facilities, or near the facilities of our contract manufacturers, could have a material adverse impact on our business, operating results and financial condition. In addition, we have major development and support operations concentrated in India. A natural disaster in this location could have a material adverse impact on our support operations. In addition, natural disasters, acts of terrorism or war could cause disruptions in our or our customers' businesses, our suppliers' or manufacturers' operations or the economy as a whole. We also rely on IT systems to operate our business and to communicate among our workforce and with third parties. For example, we use business management and communication software products provided by third parties, such as Oracle, Microsoft Online, SAP and salesforce.com, and security flaws or outages in such products would adversely affect our operations. Any disruption to these systems, whether caused by a natural disaster or by manmade problems, such as power disruptions, could adversely affect our business. To the extent that any such disruptions result in delays or cancellations of customer orders or impede our suppliers' and/or our manufacturers' ability to timely deliver our products and product components, or the deployment of our products, our business, operating results and financial condition would be adversely affected.

***Cyber-security incidents, including data security breaches or computer viruses, could harm our business by disrupting our delivery of services, damaging our reputation or exposing us to liability.***

We receive, process, store and transmit, often electronically, the confidential data of our clients and others. Unauthorized access to our computer systems or stored data could result in the theft or improper disclosure of confidential information, the deletion or modification of records or could cause interruptions in our operations. These cyber-security risks increase when we transmit information from one location to another, including transmissions over the Internet or other electronic networks. Despite implemented security measures, our facilities, systems and procedures, and those of our third-party service providers, may be vulnerable to security breaches, acts of vandalism, software viruses, misplaced or lost data, programming and/or human errors or other similar events which may disrupt our delivery of services or expose the confidential information of our clients and others.

In addition, defects in the hardware or software we develop and sell, or in their implementation by our customers, could also result in unauthorized access to our customers' and/or consumers' networks. Any security breach involving the misappropriation, loss or other unauthorized disclosure or use of confidential information of our customers or others, whether by us or a third party, could (i) subject us to civil and criminal penalties, (ii) have a negative impact on our reputation, or (iii) expose us to liability to our customers, third parties or government authorities. Any of these developments could have a material adverse effect on our business, results of operations and financial condition. We have not experienced any such incidents that have had material consequences to date. We expect the U.S. and other countries to adopt additional cyber-security legislation that, if enacted, could impose additional obligations upon us that may negatively impact our operating results.

***Regulations related to conflict minerals may adversely affect us.***

We are subject to the SEC disclosure obligations relating to our use of so-called "conflict minerals"—columbite-tantalite, cassiterite (tin), wolframite (tungsten) and gold. These minerals are present in substantially all of our products. We are required to file a report with the SEC annually covering our use of these materials and their source.

In preparing these reports, we are dependent upon information supplied by suppliers of products that contain, or potentially contain, conflict minerals. To the extent that the information that we receive from our suppliers is inaccurate or inadequate or our processes in obtaining that information do not fulfill the SEC's requirements, we could face reputational risks. Further, if in the future we are unable to certify that our products are conflict mineral free, we may face challenges with our customers, which could place us at a competitive disadvantage.

***We have not historically paid cash dividends.***

We have not historically paid cash dividends on our ordinary shares. In addition, our ability to pay dividends is limited by the terms of our credit facilities. Payment of dividends in the future will depend on, among other things, business conditions, our results of operations, cash requirements, financial condition, contractual restrictions, provisions of applicable law and other factors that our board of directors may deem relevant.

***As a result of shareholder voting requirements in the United Kingdom relative to Delaware, we have less flexibility with respect to certain aspects of capital management than we had as a Delaware corporation.***

Under English law, our directors may issue new ordinary shares up to a maximum amount equal to the allotment authority granted to the directors under our articles of association or by an ordinary resolution of our shareholders, subject to a five-year limit on such authority. Additionally, subject to specified exceptions, English law grants preemptive rights to existing shareholders to subscribe for new issuances of shares for cash, but allows shareholders to waive these rights by way of a special resolution with respect to any particular allotment of shares or generally, subject to a five-year limit on such waiver. Our articles of association contain, as permitted by English law, a provision authorizing our Board to issue new shares for cash without preemptive rights. The authorization of the directors to issue shares without further shareholder approval and the authorization of the waiver of the statutory preemption rights must both be renewed by the shareholders at least every five years, and we cannot provide any assurance that these authorizations always will be approved, which could limit our ability to issue equity and, thereby, adversely affect the holders of our ordinary shares. While we do not believe that the differences between Delaware law and English law relating to our capital management will have a material adverse effect on us, situations may arise where the flexibility had under Delaware law would have provided benefits to our shareholders that is not be available under English law.

***Any attempted takeovers of us will be governed by English law.***

As a U.K. incorporated company, we are subject to English law. An English public limited company is potentially subject to the protections afforded by the U.K. Takeover Code if, among other factors, a majority of its directors are resident within the U.K., the Channel Islands or the Isle of Man. We do not believe that the U.K. Takeover Code applies to us, and, as a result, our articles of association include measures similar to what may be found in the charters of U.S. companies, including the power for our Board to allot shares where in the opinion of the Board it is necessary to do so in the context of an acquisition of 20% or more of the issued voting shares in specified circumstances (this power is subject to renewal by our shareholders at least every five years and will cease to be applicable if the U.K. Takeover Code is subsequently deemed to be applicable to ARRIS). Further, it could be more difficult for us to obtain shareholder approval for a merger or negotiated transaction because the shareholder approval requirements for certain types of transactions differ, and in some cases, are greater under English law than under Delaware law. The provisions of our articles of association and English law may have an anti-takeover impact on us and our ordinary shares.

***Transfers of our ordinary shares, other than one effected by means of the transfer of book-entry interests in the Depository Trust Company ("DTC"), may be subject to U.K. stamp duty.***

Substantially all of our outstanding shares are currently represented by book-entry interests in DTC. Transfers of our ordinary shares within DTC should not be subject to stamp duty or stamp duty reserve tax ("SDRT") provided no instrument of transfer is entered into and no election that applies to our ordinary shares is made or has been made by DTC or Cede, its nominee, under Section 97A of the U.K. Finance Act 1986. In this regard

DTC has confirmed that neither DTC nor Cede (its nominee) has made an election under Section 97A of the Finance Act that would affect our shares issued to Cede. If such an election is or has been made, transfers of our ordinary shares within DTC generally will be subject to SDRT at the rate of 0.5% of the amount or value of the consideration. Transfers of our ordinary shares held in certificated form generally will be subject to stamp duty at the rate of 0.5% of the consideration given (rounded up to the nearest £5). SDRT will also be chargeable on an agreement to transfer such shares, although such liability would be discharged if stamp duty is duly paid on the instrument of transfer implementing such agreement within a period of six years from the agreement. Subsequent transfer of our ordinary shares to an issuer of depository receipts or into a clearance system (including DTC) may be subject to SDRT at a rate of 1.5% of the consideration given or received or, in certain cases, the value of our ordinary shares transferred. The purchaser or transferee of the ordinary shares generally will be responsible for paying any stamp duty or SDRT payable.

### **Item 1B. *Unresolved Staff Comments***

No unresolved staff comments.

### **Item 2. *Properties***

Our corporate headquarters are located in Suwanee, Georgia. We own sites in Apodaca, Mexico; Cary, North Carolina; Horsham, Pennsylvania; and Hsin Tien, Taiwan. We operate manufacturing and warehouse facilities, research and development, administrative and sales offices in various locations in the United States and in many foreign countries. These properties are generally used by each of our operating segments.

As of December 31, 2017, we have approximately 73 principal leased facilities, 29 of which are located in North America and 44 of which are located in other countries. Larger leased sites include properties located in Bangalore, India; Beaverton, Oregon; Boca Raton, Florida; Linkoping, Sweden; Lisle, Illinois; Lowell, Massachusetts; Manaus, Brazil; Paris, France; Saltaire, United Kingdom Santa Clara, California; San Diego, California; San Jose, California; Shenzhen, China; Suwanee, Georgia; Tijuana, Mexico; and Wallingford, Connecticut.

We believe that our existing facilities, including both owned and leased, are in good condition and suitable for the conduct of our business. We generally consider that the facilities are being appropriately utilized and that they have sufficient production capacity for their present intended purposes. The extent of utilization of such facilities varies from location to location and from time to time during the year. For additional information regarding our obligations under property leases, see Note 21 *Commitments and Contingencies* of Notes to the Consolidated Financial Statements.

### **Item 3. *Legal Proceedings***

We have been, and expect in the future to be, a party to various legal proceedings, investigations or claims. In accordance with applicable accounting guidance, we record accruals for certain of our outstanding legal proceedings when it is probable that a liability will be incurred and the amount of loss can be reasonably estimated. We evaluate, at least on a quarterly basis, developments in our legal proceedings or other claims that could affect the amount of any accrual, as well as any developments that would result in a loss contingency to become both probable and reasonably estimable. When a loss contingency is not both probable and reasonably estimable, we do not record a loss accrual.

If the loss (or an additional loss in excess of any prior accrual) is reasonably possible and material, we disclose an estimate of the possible loss or range of loss, if such estimate can be made. The assessment whether a loss is probable or reasonably possible and whether the loss or a range of loss is estimable, involves a series of complex judgments about future events. Even if a loss is reasonably possible, we may not be able to estimate a range of possible loss, particularly where (i) the damages sought are substantial or indeterminate, (ii) the proceedings are in the early stages, or (iii) the matters involve novel or unsettled legal theories or a large number

of parties. In such cases, there is considerable uncertainty regarding the ultimate resolution of such matters, including the amount of any possible loss. We are currently unable to reasonably estimate the possible loss or range of possible loss for any of the matters identified below. The results in litigation are unpredictable and an adverse resolution of one or more of such matters not included in the estimate provided, or if losses are higher than what is currently estimated, it could have a material adverse effect on our business, financial position, results of operations or cash flows.

Due to the nature of our business, we are subject to patent infringement claims, including current suits against us or one or more of our wholly-owned subsidiaries or one or more of our customers who may seek indemnification from us. We believe that we have meritorious defenses to the allegation made in the pending cases and intend to vigorously defend these lawsuits; however, we are unable currently to forecast the ultimate outcome of these or similar matters. In addition, we are a defendant in various litigation matters generally arising out of the normal course of business. Except as described below, ARRIS is not party to (nor have indemnification claims been made with respect to) any proceedings that are, or reasonably are expected to be, material to its business, results of operations or financial condition. However, since it is difficult to predict the outcome of legal proceedings, it is possible that the ultimate outcomes could materially and adversely affect our business, financial position, results of operations or cash flows. Accordingly, with respect to these proceedings, we are currently unable to reasonably estimate the possible loss or range of possible loss.

**C-Cation v. ARRIS et al.**, C.A. 14-cv-00059, Eastern District of Texas; C-Cation v. Atlantic Broadband et al., C.A. 15-cv-00295, District of Delaware. On February 4, 2014, C-Cation filed suit against TWC, ARRIS, Cisco and Casa alleging infringement of U.S. Patent No. 5,563,883 relating to channel management. On April 7, 2015, C-Cation filed an additional suit against several remaining MSOs alleging infringement of the same patent. Certain of our customers have requested that we provide indemnification. An Inter Partes Review request filed by ARRIS on the claims asserted in the litigation was instituted and the Patent Trial and Appeal Board (PTAB) rendered a final written decision on July 28, 2016 ruling all of the asserted claims invalid. C-Cation was unsuccessful on appeal to the Federal Circuit, and has now petitioned the U.S. Supreme Court, but we believe that the decision will be upheld. While we believe the likelihood of an unfavorable outcome is remote, in the event of an unfavorable outcome, ARRIS may be required to pay damages for utilizing certain technology.

**ChanBond v. MSOs**, C.A. 15-cv-00848, et al, District of Delaware (RGA). On September 21, 2015, ChanBond filed suit against several MSOs alleging infringement of three US Patents. Certain of our customers have requested that we provide indemnification. The complaint requests unspecified damages for infringement and injunction against future infringement. To date, no evidence of infringement or damages has been introduced. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, ARRIS may be required to indemnify the MSOs and/or pay damages for utilizing certain technology.

**Chrimar v. Ruckus Wireless, Inc.**, C.A. 16-cv-00186, Northern District of California. On July 1, 2015, Chrimar filed suit against Ruckus alleging infringement of four US Patents. The case has been stayed pending Inter Partes Review (IPR) proceedings contesting the validity of the patents, two of these IPRs have resulted in a final written decision invalidating the asserted claims, while two other IPR decisions are expected in the next month. The complaint requests unspecified damages for infringement and injunction against future infringement. To date, no evidence of infringement or damages has been introduced. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, ARRIS may be required to indemnify the MSOs and/or pay damages for utilizing certain technology.

**Hera Wireless et al. v. ARRIS**, C.A. 1:17-cv-00948, District of Delaware. On July 14, 2017, Hera Wireless filed suit against ARRIS alleging infringement of three U.S. patents. The complaint requests unspecified damages for infringement. To date, no evidence of infringement or damages has been introduced. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, ARRIS may be required to pay damages for utilizing certain technology.

***Intellectual Ventures I and II v. AT&T, CenturyLink***, C.A. 12-cv-00193, 13-cv-01631, etc. District of Delaware. On February 16, 2012, Intellectual Ventures filed a claim against AT&T alleging infringement of several US patents. Certain of our customers have requested that we provide indemnification. The complaint requests damages for past and future infringement. To date, no evidence of infringement or damages has been introduced. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, ARRIS may be required to indemnify AT&T and/or pay damages for utilizing certain technology.

***In Re ARRIS Cable Modem Consumer Litigation***, C.A. 5:17-cv-01834, Northern District of California. On March 31, 2017, Carlos Reyna, on behalf of himself and others similarly situated filed a putative class action lawsuit against ARRIS alleging that the SB6190 modem which includes the Intel Puma 6 chipset is defective. The plaintiff alleges violation of the California Song-Beverly Consumer Warranty Act, California Consumer Legal Remedies Act, California False Advertising Law, and California Unfair Competition Law. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, we may be required to pay damages.

***RealTime Adaptive Streaming v. EchoStar et al.***, C.A. 17-cv-02097, District of Colorado. On November 6, 2017, RealTime Adaptive Streaming filed an amended complaint alleging that ARRIS products infringe two U.S. patents. The complaint requests unspecified damages for infringement and injunction against future infringement. To date, no evidence of infringement or damages has been introduced. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, ARRIS may be required to pay damages for utilizing certain technology.

***Rovi et al. v. Comcast et al.***, C.A. 1:16-cv-09826, Southern District of New York; 337-TA-1001, International Trade Commission. On April 1, 2016, Rovi filed suit against Comcast and several equipment vendors (including ARRIS and Pace) alleging infringement of 15 U.S. patents alleged to cover various program guide technology. On April 6, 2016, Rovi filed a complaint in the International Trade Commission (ITC) alleging infringement of seven U.S. patents (the same as those asserted in the New York suit). The ITC found Comcast in violation of two patents by various remote programming features, while also finding that ARRIS set-top boxes do not infringe the patents. In an example of what we believe is clear administrative authority overreach, the ITC thereby issued an exclusion order against Comcast from causing non-infringing set-top boxes to be imported for use in Comcast's system. Comcast has removed the remote programming feature held infringing by the ITC, and has petitioned U.S. Customs and Border Protection to allow importation of set-top products for use in Comcast's network, and is appealing the ITC verdict. In the event that U.S. Customs and Border Protection does not agree with Comcast, we may be barred from importing set top boxes into the U.S., which would have a materially adverse impact on our results.

***Sprint Communications v. MSOs***, C.A. 11-cv-2686 etc., District of Kansas. On December 19, 2011, Sprint filed suit against several MSOs alleging infringement of several patents alleged to cover various aspects of voice services. Certain of our customers have requested that we provide indemnification. The complaint requests unspecified damages for past infringement and injunction against future infringement. At an initial trial, Sprint was awarded \$140 million in damages from Time Warner Cable. It is premature to assess the likelihood of an unfavorable outcome on any indemnity claims. In the event of an unfavorable outcome, ARRIS may be required to indemnify the MSOs and/or pay damages for utilizing certain technology. With respect to any liability attributable to Motorola Home in this matter, a subsidiary of Google has agreed to indemnify ARRIS.

***TQ Delta v. MSOs***, C.A. 15-cv-00611; 15-cv-00615, etc., District of Delaware. On July 17, 2015, TQ Delta filed suit against several MSOs alleging infringement of several U.S. patents. Certain of our customers have requested that we provide indemnification. Inter partes review proceedings have been instituted on all of the patents involved in the suit, and the case has been stayed pending the outcome of those proceedings. To date, the Patent Trial and Appeals Board has ruled asserted claims in five of the patents invalid, and a ruling on another of the patents is expected by the end of March 2018. The complaint requests unspecified damages for past and future infringement. To date, no evidence of infringement or damages has been introduced. It is premature to

assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, we may be required to indemnify the MSOs and/or pay damages for utilizing certain technology.

*TQ Delta v. 2Wire Inc.*, C.A. 13-cv-01835, District of Delaware. On November 4, 2013, TQ Delta filed suit against 2Wire alleging infringement of several U.S. patents. The complaint requests unspecified damages for past infringement and an injunction against future infringement. To date, no evidence of infringement or damages has been introduced. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, we may be required to pay damages for utilizing certain technology.

*United Access Technologies v. AT&T*, C.A. 11-cv-00338, District of Delaware. On April 15, 2011, United Access Technologies filed suit against AT&T alleging infringement of three U.S. patents. The complaint requests unspecified damages for past and future infringement. To date, no evidence of infringement or damages has been introduced. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, we may be required to indemnify AT&T and/or pay damages for utilizing certain technology.

*XR Communications v. Ruckus Wireless, Inc.*, C.A. 2:17-cv-02961, Central District of California. On April 21, 2017, XR Communications filed suit against Ruckus alleging infringement of three U.S. patents it acquired in bankruptcy from Vivato Inc. The complaint requests unspecified damages for past and future infringement. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, ARRIS may be required to cease using and/or pay damages for utilizing certain technology.

In the acquisition agreement entered into in connection with the acquisition of the Motorola Home business, a subsidiary of Google agreed to indemnify, defend and hold harmless ARRIS and various related parties with respect to, among other things, any losses suffered by ARRIS as a result of a court order involving, or the settlement of, certain agreed-upon litigation, including the Sprint lawsuit described above, that reference this indemnification obligation. There are various limitations upon this obligation.

From time to time third parties demand that we or our customers enter into a license agreement with respect to patents owned, or allegedly owned, by the third parties. Such demands cause us to dedicate time to study the patents and enter into discussions with the third parties regarding the merits and value, if any, of the patents. These discussions, may materialize into license agreements or patent claims asserted against us or our customers. If asserted against our customers, our customers may request indemnification from us. It is not possible to determine the impact of any such demands and the related discussions on ARRIS's business, results of operations or financial condition.

#### **Item 4. *Mine Safety Disclosures***

Not Applicable



#### Item 4A. Executive Officers and Board Committees

##### Executive Officers of the Company

The following table sets forth the name, age as of March 1, 2018, and position of our executive officers.

| <u>Name</u>                    | <u>Age</u> | <u>Position</u>   |
|--------------------------------|------------|---|
| Bruce W. McClelland . . . . .  | 51         | Chief Executive Officer   |
| Robert J. Stanzione . . . . .  | 70         | Executive Chairman and Chairman of the Board of Directors                                   |
| David B. Potts . . . . .       | 60         | Executive Vice President and Chief Financial Officer  |
| Lawrence Robinson . . . . .    | 50         | President, Customer Premises Equipment  |
| Daniel T. Whalen . . . . .     | 50         | President, Network & Cloud  |
| Daniel Rabinovitsj . . . . .   | 53         | President, Enterprise Networks  |
| Stephen McCaffery . . . . .    | 51         | President, International Sales & Managing Director, International Business Operations Group |
| Timothy O'Loughlin . . . . .   | 44         | President, North American Sales   |
| James R. Brennan . . . . .     | 56         | Senior Vice President, Supply Chain & Quality   |
| Philip C. Baldock . . . . .    | 42         | Senior Vice President, Chief Information Officer  |
| Patrick W. Macken . . . . .    | 44         | Senior Vice President, General Counsel and Secretary  |
| Victoria P. Brewster . . . . . | 55         | Senior Vice President, Human Resources  |

*Bruce W. McClelland* is Chief Executive Officer and a member of the Board of Directors at ARRIS.

Previously, Mr. McClelland served as President of ARRIS's Network & Cloud and Global Services business. Mr. McClelland's vision and strategy for the business was responsible for ARRIS's broadband network leadership — a key driver of the company's global growth.

Mr. McClelland's prior roles at ARRIS also included ARRIS's Group President, for Products and Services, and Vice President and General Manager, for ARRIS's Customer Premises Equipment Unit. Mr. McClelland joined the Company as Vice President of Engineering, responsible for development of a broad range of voice and data cable TV products.

Prior to ARRIS, Mr. McClelland was responsible for the development of Nortel's Signaling System #7 and Signal Transfer Point product lines as well as several development roles within Nortel's Class 4/5 DMS switching product line.

Mr. McClelland received a Bachelor of Electrical Engineering from the University of Saskatchewan.

*Robert J. Stanzione* is Executive Chairman and Chairman of the Board of the Directors at ARRIS. As Executive Chairman, Mr. Stanzione is responsible for charting the company's direction in collaboration with its CEO.

Previously, Mr. Stanzione served as ARRIS's CEO. In 1995, Mr. Stanzione was appointed President and CEO of ARRIS Interactive, LLC, a Nortel Networks/ANTEC joint venture. In 1998, Mr. Stanzione became President, Chief Operating Officer and a Director of ANTEC and was appointed to the CEO role on January 1, 2000. In 2001, ANTEC acquired Nortel's share of ARRIS Interactive and re-named the Company ARRIS Group, Inc.

From 1969 to 1995, before joining ARRIS, Mr. Stanzione held a wide range of senior management positions with AT&T.

Mr. Stanzone holds a Bachelor's degree in Mechanical Engineering from Clemson University, a Master's degree in Industrial Engineering from North Carolina State University and has completed executive development programs at the University of Richmond, Babson College and the International Institute for Management Development in Switzerland.

Mr. Stanzone is a Board Member of the National Cable & Telecommunications Association (NCTA) and The Cable Center Board of Directors. Mr. Stanzone also serves as a Trustee on the Committee for Economic Development in Washington, D.C.

*David B. Potts* has been the Chief Financial Officer since 2004. Prior to joining ARRIS, Mr. Potts was Chief Financial Officer of ARRIS Interactive L.L.C. and held various executive management positions with Nortel Networks, including Vice President and Chief Financial Officer of Bell Northern Research and Vice President of Mergers and Acquisitions. Prior to Nortel Networks, Mr. Potts was with Touche Ross in Toronto.

Mr. Potts holds a Bachelor of Commerce degree from Lakehead University in Canada and is a member of the Institute of Chartered Accountants in Canada.

Mr. Potts has been a Board Member of Internap Corporation (INAP) since 2017, which trades on the NASDAQ.

*Lawrence Robinson* is President, Customer Premises Equipment, which comprises in-home video solutions including digital cable set-tops, satellite receivers, and IP-based TV products, as well as a comprehensive portfolio of broadband devices incorporating the latest in DOCSIS, DSL, and fiber technologies.

Mr. Robinson assumed his current role after the ARRIS acquisition of Motorola Mobility's Home business where he was Senior Vice President and General Manager of the Home Devices business responsible for its video, voice and data product portfolio, including set-tops, modems and gateways.

While at Motorola, Mr. Robinson held a variety of senior level positions including Corporate Vice President, Product Management in the Digital Video Solutions Group. In this role, he led the definition and management of digital cable and satellite set-tops product lines for the Americas' market. Robinson also managed strategic partnerships that complemented the portfolio.

Mr. Robinson holds a Master's degree in Technology Management from the University of Pennsylvania and a Bachelor's degree in Electrical Engineering from the Catholic University of America.

*Daniel T. Whalen* is the President of the Network & Cloud business at ARRIS. Mr. Whalen oversees the development and delivery of the company's leading portfolio of broadband and video network infrastructure technologies and cloud-based software solutions.

Mr. Whalen previously served as the Senior Vice President and General Manager of Global Services.

Mr. Whalen joined ARRIS in 2008 as Vice President of Sales, after spending seven years as Area Director at Cisco. At Cisco, Mr. Whalen led the US Cable Service sales organization. There, he was integral in establishing early VoIP, VOD, Broadband Provisioning, Regional Area Network and IP Backbone service deployments for the US Service Provider market.

Mr. Whalen has held a number of positions in the technology sector over the last 20 years including sales, operations management, project management, and engineering at Bell Atlantic and Comdisco, as well as consulting at KPMG.

Mr. Whalen received a Bachelor's Degree in Civil Engineering from the Stevens Institute of Technology in Hoboken, NJ.

*Dan Rabinovitsj* is President of Enterprise Networks. In this role, Mr. Rabinovitsj leads the unit that focuses on enabling constant, wireless and wired connectivity across complex and varied networking environments—serving enterprises and service providers across multiple verticals, including hospitality, smart cities, K-12, government and others.

Mr. Rabinovitsj assumed his current role after ARRIS acquisition of the Ruckus Networks businesses in December 2017. Prior to the acquisition, he served as the Chief Operating Officer (COO), Ruckus Wireless and SVP, Network Edge Business Unit at Brocade Communication Systems, managing day-to-day operations for wired and wireless networking products and solutions. Mr. Rabinovitsj also served as COO of Ruckus Wireless, Inc. from October 2014 until its acquisition by Brocade Communication Systems in 2016.

Prior to joining Ruckus, Mr. Rabinovitsj was Senior Vice President and General Manager of the Wired and Wireless Networking Group at Qualcomm from 2011 to 2014. In that role, Dan ran the networking and small cells business and helped drive the transition to smart routers to dramatically improve user experience and start the transition to the Internet of Everything. He also led Qualcomm's initiative to drive high-density deployment of LTE infrastructure, which has continued at Ruckus as the OpenG™ platform.

Mr. Rabinovitsj previously held management positions with Atheros, NXP, Silicon Labs and AMD, working on technology initiatives from central office switching systems to mobile handset platforms and network processors.

Mr. Rabinovitsj holds a Master's degree in Asian Studies and a Bachelor's degree in Philosophy from the University of Texas at Austin.

*Stephen McCaffery* is President, International Sales and Managing Director, International Business Operations Group. In this role, Mr McCaffery leads International Sales and oversees ARRIS's International Business Operations Group, which is focused on aligning ARRIS's sales and business operations to accelerate our international growth in key markets outside the US.

Previously, Mr. McCaffery served as General Manager and Managing Director of ARRIS International Operations. Mr. McCaffery joined ARRIS as SVP of EMEA Sales following the company's 2013 acquisition of Motorola Mobility, where he served as Vice President, Europe.

Prior to joining Motorola, Mr. McCaffery was Vice President of Sales and Services for Alcatel's Optical Networks Group within the company's Wireline Product Group, leading sales for the North Europe region and assisting in the group's integration program following the merger of Alcatel and Lucent.

Mr. McCaffery holds a degree in Electrical and Electronic Engineering from Warwick University.

*Timothy O'Loughlin* is President, North American Sales at ARRIS. Mr. O'Loughlin assumed his current role after the acquisition of Pace. Previously, he served as President of Pace Americas, overseeing the United States and Canada.

Mr. O'Loughlin joined Pace in March 2001 as part of the marketing team and served in various roles including Senior Vice President of Sales and Customer Support, Vice President of Business Development, and Vice President of Sales and Marketing. He was an instrumental part of Pace's expansion throughout the cable, telecommunications, and satellite industries.

Prior to joining Pace, Mr. O'Loughlin held strategic marketing positions in the hospitality and telecom industries. He holds a Bachelor's degree in Business Administration and an MBA from Florida Atlantic University.

*James R. Brennan* is Senior Vice President of Supply Chain and Quality and responsible for leading the supply chain, quality and operation services and solutions that deliver financial results, customer satisfaction and industry leading practices.

Mr. Brennan held a similar role as the Corporate Vice President of Supply Chain and Quality for the Motorola Mobility's Home business. He served in various executive positions at Motorola, including Vice President Business Transformation and Chief Quality Officer and Corporate Vice President of the Home & Networks Mobility supply chain, which included global operations associated with planning, purchasing, new product introduction, manufacturing, customer fulfillment and repair. Mr. Brennan also served in other senior leadership positions, including strategy, business operations, IT, and mergers and acquisitions.

Prior to joining Motorola in 2000, Mr. Brennan held leadership positions at General Instrument in Operations and Northrop Grumman/Vought Aircraft in engineering development, manufacturing, flight test operations and quality.

Mr. Brennan earned a Bachelor's degree in Mechanical Engineering from Old Dominion University. He also completed the University of Pennsylvania's Wharton School and the University of Michigan's executive programs.

*Philip C. Baldock* is Senior Vice President, Chief Information Officer at ARRIS. Mr. Baldock assumed his current role after the acquisition of Pace. He is responsible for developing ARRIS's IT strategy to deliver increased operating performance and productivity. Previously, Mr. Baldock served as Senior Vice President of Business Operations at Pace, overseeing Manufacturing Strategy, Procurement, Quality and Business Systems. He was also responsible for Pace's supplier relationships and acted in a governance capacity, ensuring Pace met its corporate social responsibility obligations.

Mr. Baldock joined Pace in 1997 as a Financial Accountant at the Company's UK headquarters. In 2005, he transferred to the Pace Americas office in Boca Raton, FL where his roles included Product Manager, Director of Commercial Operations and VP, Customer Support.

Mr. Baldock qualified as a Chartered Management Accountant in the UK and holds a Bachelor's Degree in Accounting from Glasgow Caledonian University and an MBA from the University of Florida

*Patrick W. Macken* is Senior Vice President, General Counsel and Secretary. In this role, he oversees all aspects of the Company's legal function. Mr. Macken joined ARRIS in 2015 from Troutman Sanders LLP, where he served as partner in the firm's Corporate Group, providing legal counsel and support to ARRIS for more than 10 years. His legal expertise spans securities law, mergers and acquisitions, capital markets, commercial law and corporate governance.

Mr. Macken holds a Bachelor's Degree and a Juris Doctorate from Tulane University.

*Victoria P. Brewster* is Senior Vice President of Human Resources, where she leads global people strategies that enable growth, energize the culture, and create an employee competitive advantage for ARRIS.

Ms. Brewster has held a leadership role in Human Resource at ARRIS for over a decade, managing global business-critical functions including talent acquisition, compensation, benefits, HR systems, talent management, and employee relations. Her work includes leading the HR integration of strategic ARRIS acquisitions including Motorola Home and Pace. She founded and serves as executive sponsor of the ARRIS Women's Business Network. Prior to joining ARRIS in 2006, Ms. Brewster held senior leadership roles at S1 Corporation, NDCHealth, WebMD, and HBO & Company.

Ms. Brewster holds a Bachelor's degree in Industrial Relations and Psychology from the University of North Carolina at Chapel Hill.

## PART II

### Item 5. *Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities*

ARRIS’s stock is traded on the NASDAQ Global Select Market under the symbol “ARRS.” The following table reports the high and low trading prices per share of our stock as listed on the NASDAQ Global Market System:

|                      | High    | Low     |
|----------------------|---------|---------|
| <b>2016</b>          |         |         |
| First Quarter .....  | \$31.25 | \$20.27 |
| Second Quarter ..... | 26.00   | 20.05   |
| Third Quarter .....  | 29.54   | 21.03   |
| Fourth Quarter ..... | 31.50   | 25.78   |
| <b>2017</b>          |         |         |
| First Quarter .....  | \$31.52 | \$24.75 |
| Second Quarter ..... | 29.65   | 25.10   |
| Third Quarter .....  | 30.38   | 26.09   |
| Fourth Quarter ..... | 30.00   | 24.85   |

We have not paid cash dividends on our stock since our inception. In addition, there are restrictions that currently materially limit our ability to pay any dividends. The credit agreement governing our senior secured credit facilities contains restrictions on our ability to pay dividends. We also have subsidiaries in countries that maintain restrictions, such as legal reserves, with respect to the amount of dividends that the subsidiaries can distribute. Additionally, some countries impose restrictions or controls over how and when dividends can be paid by these subsidiaries.

As of January 31, 2018, there were 74 record holders of our ordinary shares (with an estimated approximately 44,000 beneficial holders.) This number excludes shareholders holding stock under nominee or street name accounts with brokers or banks.

#### *Issuer Purchases of Equity Securities*

The table below sets forth the purchases of ARRIS stock for the quarter ended December 31, 2017:

| <u>Period</u>     | <u>Total<br/>Number of<br/>Shares<br/>Purchased<sup>(1)</sup></u> | <u>Average<br/>Price<br/>Paid<br/>Per<br/>Share</u> | <u>Total Number of<br/>Shares<br/>Purchased as<br/>Part of Publicly<br/>Announced Plans<br/>or Programs</u> | <u>Approximate<br/>Dollar Value of<br/>Shares That May<br/>Yet Be Purchased<br/>Under the Plans<br/>or Programs<br/>(in thousands)</u> |
|-------------------|---|---|---|--|
| October 31 .....  | 230,307   | \$28.62   | 230,307   | 268,408  |
| November 30 ..... | 55,830  | \$26.61   | 50,867  | 267,009  |
| December 31 ..... | 1,580,417   | \$26.63   | 1,577,556   | 225,000  |

- (1) An aggregate of 7,824 shares shown in the table above were subject to equity awards that were cancelled for cash to satisfy minimum tax withholding obligations that arose on the vesting of the applicable restricted stock units

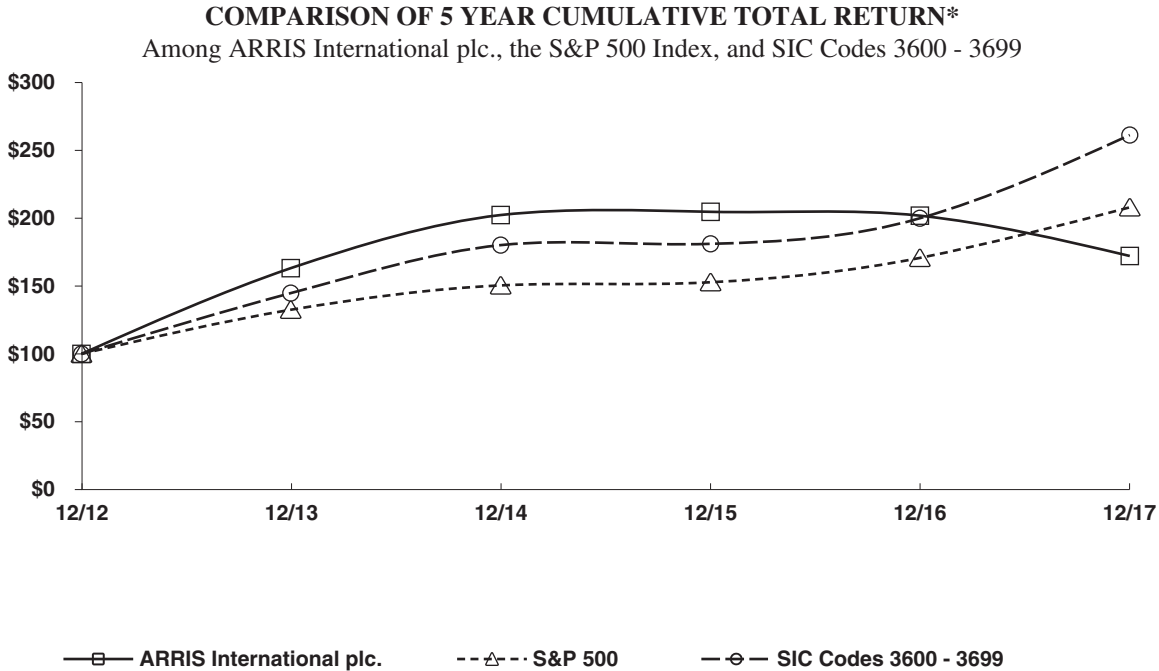
Upon completing the Pace combination, we conducted a court-approved process in accordance with section 641(1)(b) of the U.K. Companies Act 2006, pursuant to which we reduced our stated share capital and thereby increased our distributable reserves or excess capital out of which we may legally pay dividends or repurchase shares. Distributable reserves are not linked to a U.S. GAAP reported amount.

In 2016, the Board approved a \$300 million share repurchase authorization replacing all prior programs. In early 2017, the Board authorized an additional \$300 million for share repurchases.

During the fiscal year of 2017, we repurchased 7.5 million shares of our common stock for \$197.0 million at an average stock price of \$26.12. The remaining authorized amount for stock repurchases under this plan was \$225.0 million as of December 31, 2017. Unless terminated earlier by a Board resolution, this new plan will expire when we have used all authorized funds for repurchase. However, U.K. law also generally prohibits a company from repurchasing its own shares through “off market purchases” without prior approval of shareholders because we are not traded on a recognized investment exchange in the U.K. This shareholder approval lasts for a maximum period of five years. Prior to and in connection with the Pace combination, we obtained approval to purchase our own shares. This authority to repurchase shares terminates in January 2021, unless otherwise reapproved by our shareholders.

**Stock Performance Graph**

Below is a graph comparing total stockholder return on the Company’s stock from December 31, 2011 through December 31, 2017, with the Standard & Poor’s 500 and the Index of NASDAQ U.S. Stocks of entities in the industry of electronics and electrical equipment and components, exclusive of computer equipment (SIC 3600-3699), prepared by the Research Data Group, Inc.



\*\$100 invested on 12/31/12 in stock or index, including reinvestment of dividends.  
Fiscal year ending December 31.

Copyright© 2018 Standard & Poor’s, a division of S&P Global. All rights reserved.

|                                 | 12/12         | 12/13         | 12/14         | 12/15         | 12/16         | 12/17         |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>ARRIS International plc.</b> | <b>100.00</b> | <b>162.92</b> | <b>202.07</b> | <b>204.62</b> | <b>201.67</b> | <b>171.95</b> |
| <b>S&amp;P 500</b>              | <b>100.00</b> | <b>132.39</b> | <b>150.51</b> | <b>152.59</b> | <b>170.84</b> | <b>208.14</b> |
| <b>SIC Codes 3600 — 3699</b>    | <b>100.00</b> | <b>144.70</b> | <b>180.01</b> | <b>180.84</b> | <b>199.79</b> | <b>261.33</b> |

Copyright© 2018 Standard & Poor’s, a division of S&P Global. All rights reserved.

Notwithstanding anything to the contrary set forth in any of our filings under the Securities Act of 1933, or the Securities Exchange Act of 1934, that might incorporate future filings, including this Annual Report on Form 10-K, in whole or in part, the Performance Graph presented above shall not be incorporated by reference into any such filings.

**Item 6. *Selected Consolidated Historical Financial Data***

The selected consolidated financial data as of December 31, 2017 and 2016 and for each of the three years in the period ended December 31, 2017 set forth below are derived from the accompanying audited consolidated financial statements of ARRIS, and should be read in conjunction with such statements and related notes thereto. The selected consolidated financial data as of December 31, 2015, 2014, and 2013 and for the years ended December 31, 2014 and 2013 is derived from audited consolidated financial statements that have not been included in this filing. The historical consolidated financial information is not necessarily indicative of the results of future operations and should be read in conjunction with ARRIS's historical consolidated financial statements and the related notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this document.

On April 17, 2013, we completed our acquisition of Motorola Home and applied the acquisition method of accounting for the business combination. The selected balance sheet data as of December 31, 2013 represents the consolidated statement of financial position of the combined company. The consolidated operating data for the year ended December 31, 2013 includes approximately eight months of operating results of the combined company.

On January 4, 2016, we completed our acquisition of Pace and applied the acquisition method of accounting for the business combination. The selected balance sheet data as of December 31, 2016 and the consolidated operating data for the year ended December 31, 2016 represent the consolidated statement of financial position of the combined company.

On December 1, 2017, we completed our acquisition of Ruckus Networks and applied the acquisition method of accounting for the business combination. The selected balance sheet data as of December 31, 2017 represents the consolidated statement of financial position of the combined company. The consolidated operating data for the year ended December 31, 2017 includes approximately one month of operating results of the combined company.

See Note 25 *Summary Quarterly Consolidated Financial Information* of the Notes to the Consolidated Financial Statements for a summary of our quarterly consolidated financial information for 2017 and 2016 (in thousands, except per share data).

|  | 2017        | 2016        | 2015        | 2014        | 2013        |
|--|-------------|-------------|-------------|-------------|-------------|
| <b>Consolidated Operating Data:</b>                        |             |             |             |             |             |
| Net sales  | \$6,614,392 | \$6,829,118 | \$4,798,332 | \$5,322,921 | \$3,620,902 |
| Cost of sales  | 4,948,153   | 5,121,501   | 3,379,409   | 3,740,425   | 2,598,154   |
| Gross margin   | 1,666,239   | 1,707,617   | 1,418,923   | 1,582,496   | 1,022,748   |
| Selling, general, and administrative expenses              | 475,369     | 454,190     | 417,085     | 410,568     | 338,252     |
| Research and development expenses                          | 539,094     | 584,909     | 534,168     | 556,575     | 425,825     |
| Amortization of intangible assets                          | 375,407     | 397,464     | 227,440     | 236,521     | 193,637     |
| Impairment of goodwill and intangible assets               | 55,000      | 2,200       | —           | —           | —           |
| Integration, acquisition, restructuring and other costs    | 98,357      | 158,137     | 29,277      | 37,498      | 83,047      |
| Operating income (loss)                                    | 123,012     | 110,717     | 210,953     | 341,334     | (18,013)    |
| Interest expense   | 87,088      | 79,817      | 70,936      | 62,901      | 67,888      |
| Loss on investments  | 11,066      | 21,194      | 6,220       | 10,961      | 2,698       |
| Loss (gain) on foreign currency                            | 9,757       | (13,982)    | 20,761      | 2,637       | (3,502)     |
| Interest income  | (7,975)     | (4,395)     | (2,379)     | (2,590)     | (2,936)     |
| Other expense (income), net                                | 1,873       | 3,991       | 8,362       | 28,195      | 13,989      |
| Income (loss) before income taxes                          | 21,203      | 24,092      | 107,053     | 239,230     | (96,150)    |
| Income tax (benefit) expense                               | (44,921)    | 15,131      | 22,594      | (87,981)    | (47,390)    |
| Consolidated net income (loss)                             | 66,124      | 8,961       | 84,459      | 327,211     | (48,760)    |
| Net loss attributable to noncontrolling interest           | (25,903)    | (9,139)     | (7,722)     | —           | —           |
| Net income (loss) attributable to ARRIS International plc. | \$ 92,027   | \$ 18,100   | \$ 92,181   | \$ 327,211  | \$ (48,760) |
| Basic  | \$ 0.49     | \$ 0.09     | \$ 0.63     | \$ 2.27     | \$ (0.37)   |
| Diluted  | \$ 0.49     | \$ 0.09     | \$ 0.62     | \$ 2.21     | \$ (0.37)   |
| <b>Selected Balance Sheet Data:</b>                        |             |             |             |             |             |
| Total assets   | \$7,619,543 | \$7,758,362 | \$4,523,516 | \$4,341,042 | \$4,287,129 |
| Long-term obligations                                      | \$2,506,954 | \$2,697,491 | \$1,669,925 | \$1,646,604 | \$1,880,594 |

## Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

### Overview

ARRIS, headquartered in Suwanee, Georgia, is a global leader in entertainment, communications, and networking technology. Our innovations combine hardware, software, and services to enable advanced video experiences and constant connectivity across a variety of environments—for service providers, commercial verticals, small enterprises, and the hundreds of millions of people they serve.

We operate in three business segments: Customer Premises Equipment, Network & Cloud and Enterprise Networks. We enable service providers, including cable, telecom, digital broadcast satellite operators and media programmers, to deliver media, voice, and IP data services to their subscribers. We are a leader in set-tops, digital video and Internet Protocol Television distribution systems, broadband access infrastructure platforms, and broadband data and voice CPE, which we also sell directly to consumers through retail channels. Our solutions are complemented by a broad array of services, including technical support, repair and refurbishment, and system design and integration. The Enterprise Networks segment focuses on enabling constant, wireless and wired connectivity across complex and varied networking environments. It offers dedicated engineering, sales



and marketing resources to serve customers across a spectrum of verticals—including hospitality, education, smart cities, government, venues, service providers and more.

On December 1, 2017, we completed a stock and asset purchase acquisition of the Ruckus Wireless® and ICX® Switch business for \$761.0 million cash (net of estimated adjustment for working capital and non-cash settlement of pre-existing payables and receivables). In addition, approximately \$61.5 million in cash was transferred related to the cash settlement of stock-based awards held by transferring employees. The purchase agreement provides for customary final adjustments and potential cash payments or receipts that are expected to occur in 2018.

#### Business and Financial Highlights:

##### *Business Highlights*

- Completed the acquisition of Ruckus Networks in December 2017.
- Launched and deployed our next generation line cards for E6000 platform.
- Strong demand for DOCSIS devices; achieved 200 million-unit DOCSIS shipment milestone.
- International revenues reflected growth in all regions as operators invested in broadband and video capabilities compared to 2016.
- Maintained strong capital structure and provided for more flexibility by refinancing our credit agreement by extending maturities and improving terms and conditions.
- During 2017, we used \$197.0 million of cash to repurchase 7.5 million of our ordinary shares at an average price of \$26.12 per share.

##### *Financial Highlights*

- Sales in 2017 were \$6,614.4 million as compared to \$6,829.1 million in 2016, a decrease of 3.1%.
- Gross margin percentage was 25.2% in 2017, compared to 25.0% in 2016.
- Total operating expenses (excluding amortization of intangible assets, impairment of goodwill and intangible assets, integration, acquisition, restructuring and other costs) were \$1,014.5 million in 2017, as compared to \$1,039.1 million in the same period last year.
- We ended 2017 with \$511.4 million of cash, cash equivalents, and marketable security investments, which compares to \$1,106.7 million at the end of 2016. We generated approximately \$533.8 million of cash from operating activities in 2017 and \$362.5 million during 2016.
- Under our credit facility, we ended 2017 with long-term debt of \$2,161.4 million, at face value, the current portion of which is \$87.5 million. We made mandatory payments of \$91.7 million and in conjunction with refinancing the credit facility we repaid \$152.3 million to exiting lenders and recorded proceeds from issuance of debt of \$175.8 million.

#### **Industry Conditions**

Global macro-economic conditions improved in 2017 over the historically low levels experienced since 2007, although the U.S. and many other international markets we serve saw only modest growth. We expect to see further limited economic growth in many of our markets in 2018 notwithstanding the continuing global economic uncertainty. We believe this economic uncertainty will continue to influence the capital expenditure strategy of many of our customers and, as a result, we expect only low to modest growth in the overall capital expenditure in the markets we serve in 2018.

***Consolidation of Customers Has Occurred and May Continue*** — Vodafone received regulatory approval in July 2017 to merge its mobile operations in India with Idea Cellular, Cable One completed its purchase of

NewWave Communications in May 2017, and in September 2017 Cablevision SA (Argentina) shareholders approved its merger with Telecom Argentina SA. In 2016, Altice completed its acquisition of Cablevision, Liberty Global completed its acquisition of Cable & Wireless, Charter completed its acquisition of Time Warner Cable and BrightHouse and Frontier Communications completed its acquisition of certain Verizon properties. We believe we are favorably positioned to capitalize on this consolidation through a broader portfolio, global scale, and leadership in many of the platforms and components that these providers depend on to deliver services. The impact of this customer M&A activity is difficult to estimate but may include:

- a near-term delay in capital expenditures by the impacted customers until acquisitions are integrated. Once the acquisition is integrated, we believe there is the potential for increased capital expenditure as acquiring operators work to standardize the purchased network to the acquirer's existing systems and, in many cases, upgrade the acquired networks;
- pressures from the resulting customers for lower prices or better terms, reflecting the increase in the total volume of products purchased or the elimination of a price differential between the acquiring customer and the company acquired; and
- potential volatility in demand depending upon which technology, products and vendors each customer chooses to use post integration, including reductions in purchases from us to diversify their supplier base.

In addition to consolidation of service providers on a global basis, many of the firms that ARRIS purchases equipment and services from have consolidated as well and the trend is expected to continue. The specific impact of the above trend is difficult to predict and quantify, but in general we believe:

- Vendor consolidation gives suppliers greater scale for R&D, sales and marketing, and manufacturing. This increased scale increases risk of supplier inflexibility as well as being locked to a particular supplier with potentially high switching costs.
- At the same time, supplier consolidation provides benefits of reduced costs through innovation, efficiency of working with fewer suppliers and higher levels of service and support. These benefits facilitate higher level of service throughout the entire ecosystem for our customers.

***Capital Expenditures of Telecom Customers Have Been and May Continue to be Lower*** — Many of our telecom customers, including AT&T and Verizon, have participated in FCC sponsored spectrum auctions in the interest of expanding their network capacity to meet increasing customer demand. As a result, capital expenditures at our existing and potential telecom customers are expected to be lower as a result of the costs associated with participating in the auction. The purchase of DirecTV by AT&T has altered the historic AT&T product strategy for video deployments, decreasing our sales. Verizon completed the sale of certain properties to Frontier, which, coupled with a decrease in net subscriber additions, has impacted the demand for our products. Nevertheless, as described below, we still believe that the need for network expansion to meet subscriber demand presents potential opportunities for increased sales of our products to these customers.

***The markets for both Service Provider and Enterprise Wi-Fi are growing but are also highly competitive*** — We believe the markets for our Wi-Fi solutions are growing rapidly and our intention is to continue to invest for long-term growth to maintain our competitiveness. We expect to continue to invest heavily in research and development to expand the capabilities of our solutions with respect to services providers and enterprises. We will invest in migrating to cloud-based managed Wi-Fi services as a way for organizations to further leverage investments in Wi-Fi infrastructure. Managed Wi-Fi services, such as the ability to use Wi-Fi to gather detailed user analytics, demographics and user location information, allow companies to better understand network traffic and user interactions. We also plan to continue to make significant investments in our field sales and marketing activities, both by increasing our service provider focused direct sales force and by expanding our network of channel partners.

***Foreign Exchange Fluctuations Have and May Continue to Impact Demand*** — The majority of our international sales are denominated in U.S. dollars. During periods where the U.S. dollar strengthens, it may impact these customers' ability to purchase products, which could have a material impact on our sales in the

affected countries. These customers may delay or reduce future purchases from us, and we may experience pricing pressures in order to maintain or increase our market share with these international customers, and we may face longer payment cycles.

***Growth of Connected Device Ecosystem*** — Consumers’ growing appetite for connected devices creates an unprecedented opportunity to deliver consistent and engaging services over the Internet of Things. Service providers have an incumbent advantage in offering new forms of entertainment and communications, but still face many challenges in delivering new services across this complex system of devices. ARRIS is in position to drive this opportunity for providers as a result of our expertise in full-cycle service delivery — from the network to the cloud and the home. We provide the portfolio and professional services to navigate this new combination of device interfaces, communications protocols, device management standards, and security considerations.

***Wireline Broadband Service Providers may Evolve into partial or predominantly Wireless Network Operators*** — As consumer and business demand for ubiquitous connectivity for their devices continues to increase, wireline operators may shift or increase investment into wireless technologies such as Wi-Fi, LTE Small Cell, or the emerging Citizen’s Band Radio Service (“CBRS”). ARRIS is positioned to participate in Service Provider’s residential wireless investments with our portfolio of Wi-Fi enabled cable modems and DSL modems. With the recently completed Ruckus Networks acquisition, we now also have a portfolio of Access Points, Controllers, Cloud Management, and Data Analytics to participate in opportunities in both the enterprise market and Service Provider public access (e.g. hot spots).

***Network Optimization and Scaling Infrastructure to Keep Up with Increasing Consumer Bandwidth Demand*** — As service providers prepare to deliver more advanced services to subscribers — such as 4K TV, IoT, gigabit Wi-Fi — they are investing increasingly in their networks to anticipate the reciprocal need for more bandwidth. Providers are looking to ARRIS for its leadership in technologies like DOCSIS, CCAP, and DAA to scale to these multi-gigabit services and ARRIS continues to invest in R&D to keep its customers’ networks ahead of market demand for these services.

***Competition Increasing between Cable Operators, Telecom Companies, and New Entrants*** — The lines between telecom and cable providers has blurred as each has embraced the triple play. Moreover, OTT market participants and individual programming networks have entered the market with competing products placing higher bandwidth demands on the network. This competition emphasizes the enabling technologies behind each approach — including DOCSIS, fiber, G.Fast, and others — and the increasing investment in the network infrastructure and CPE required to deliver these services. ARRIS’s leadership across these solutions positions us to capitalize on the growing competition between all three stakeholders.

***Service Providers are Demanding Advanced Network Technologies and Software Solutions*** — The increase in volume and complexity of the signals transmitted over broadband networks as a result of the migration to an all-digital, all-IP, on demand network is causing service providers to deploy new technologies. Service providers also are demanding sophisticated network and service management software applications that minimize operating expenditures needed to support the complexity of two-way broadband communications systems. As a result, service providers are focusing on technologies and products that are flexible, cost-effective, compliant with open industry standards, and scalable to meet subscriber growth and effectively deliver reliable, enhanced services. As part of this evolution, some operators (for example Comcast with its Reference Design Kit (“RDKit”) efforts) are choosing to design portions of the set-tops firmware internally. As a result, we anticipate that over time operators will migrate to an all IP network and look to enable new platforms and technologies intended to accelerate the deployment of new services. As this occurs, which we believe will be over a multi-year period, we anticipate a decline in demand for our traditional set-tops and an increase in demand in new IP set-tops.

## **Results of Operations**

### ***Overview***

As highlighted above, we have faced, and in the future, will face significant changes in our industry and business. These changes have impacted our results of operations and are expected to do so in the future. As a result, we have implemented strategies both in anticipation and in reaction to the impact of these dynamics.

Below is a table that shows our key operating data as a percentage of sales. Following the table is a detailed description of the major factors impacting the year-over-year changes of the key lines of our results of operations (as a percentage of sales)

|  | Years Ended December 31, |        |        |
|--|--------------------------|--------|--------|
|  | 2017                     | 2016   | 2015   |
| <b>Net sales</b> .....   | 100.0%                   | 100.0% | 100.0% |
| <b>Cost of sales</b> .....                                       | 74.8                     | 75.0   | 70.4   |
| <b>Gross margin</b> .....  | 25.2                     | 25.0   | 29.6   |
| <b>Operating expenses:</b>                                       |                          |        |        |
| Selling, general, and administrative expenses .....              | 7.2                      | 6.6    | 8.7    |
| Research and development expenses .....                          | 8.1                      | 8.6    | 11.1   |
| Amortization of intangible assets .....                          | 5.7                      | 5.8    | 4.8    |
| Impairment of goodwill and intangible assets .....               | 0.8                      | —      | —      |
| Integration, acquisition, restructuring and other costs .....    | 1.5                      | 2.3    | 0.6    |
| <b>Operating income</b> .....                                    | 1.9                      | 1.7    | 4.4    |
| <b>Other expense (income):</b>                                   |                          |        |        |
| Interest expense .....   | 1.3                      | 1.2    | 1.5    |
| Loss on investments .....  | 0.2                      | 0.3    | 0.1    |
| (Gain) Loss on foreign currency .....                            | 0.2                      | (0.2)  | 0.5    |
| Interest income .....  | (0.1)                    | (0.1)  | (0.1)  |
| Other expense, net .....   | —                        | 0.1    | 0.2    |
| <b>Income before income taxes</b> .....                          | 0.3                      | 0.4    | 2.2    |
| Income tax (benefit) expense .....                               | (0.7)                    | 0.2    | 0.5    |
| <b>Consolidated net income</b> .....                             | 1.0%                     | 0.2%   | 1.7%   |
| Net loss attributable to noncontrolling interest .....           | (0.4)                    | (0.1)  | (0.2)  |
| <b>Net income attributable to ARRIS International plc.</b> ..... | 1.4%                     | 0.3%   | 1.9%   |

### Comparison of Operations for the Three Years Ended December 31, 2017

#### Net Sales

The table below sets forth our net sales for each of our segments (in thousands, except percentages):

| Business Segment: | Net Sales                        |                    |                    | Increase (Decrease) Between Periods |        |                    |       |
|-------------------|----------------------------------|--------------------|--------------------|-------------------------------------|--------|--------------------|-------|
|                   | For the Years Ended December 31, |                    |                    | 2017 vs. 2016                       |        | 2016 vs. 2015      |       |
|                   | 2017                             | 2016               | 2015               | \$                                  | %      | \$                 | %     |
| CPE .....         | \$4,475,670                      | \$4,747,445        | \$3,136,585        | \$(271,775)                         | (5.7)% | \$1,610,860        | 51.3% |
| N&C .....         | 2,094,113                        | 2,111,708          | 1,661,594          | (17,595)                            | (0.8)% | 450,114            | 27.1% |
| Enterprise .....  | 45,749                           | —                  | —                  | 45,749                              | 100%   | —                  | —     |
| Other .....       | (1,140)                          | (30,035)           | 153                | 28,895                              | 96.2%  | (30,188)           | —     |
| Total sales ..... | <u>\$6,614,392</u>               | <u>\$6,829,118</u> | <u>\$4,798,332</u> | <u>\$(214,726)</u>                  | (3.1)% | <u>\$2,030,786</u> | 42.3% |

The table below sets forth our domestic and international sales (in thousands, except percentages):

|                         | Net Sales                        |             |             | Increase (Decrease) Between Periods |         |               |        |
|-------------------------|----------------------------------|-------------|-------------|-------------------------------------|---------|---------------|--------|
|                         | For the Years Ended December 31, |             |             | 2017 vs. 2016                       |         | 2016 vs. 2015 |        |
|                         | 2017                             | 2016        | 2015        | \$                                  | %       | \$            | %      |
| Domestic — U.S. . . . . | \$4,351,843                      | \$4,909,698 | \$3,418,583 | \$(557,855)                         | (11.4)% | \$1,491,115   | 43.6%  |
| International:          |                                  |             |             |                                     |         |               |        |
| Americas, excluding     |                                  |             |             |                                     |         |               |        |
| U.S. . . . .            | 1,080,456                        | 982,769     | 880,581     | 97,687                              | 9.9%    | 102,188       | 11.6%  |
| Asia Pacific . . . . .  | 374,772                          | 291,504     | 142,893     | 83,268                              | 28.6%   | 148,611       | 104.0% |
| EMEA . . . . .          | 807,321                          | 645,147     | 356,275     | 162,174                             | 25.1%   | 288,872       | 81.1%  |
| Total                   |                                  |             |             |                                     |         |               |        |
| international . . .     | \$2,262,549                      | \$1,919,420 | \$1,379,749 | \$ 343,129                          | 17.9%   | \$ 539,671    | 39.1%  |
| Total sales . . . . .   | \$6,614,392                      | \$6,829,118 | \$4,798,332 | \$(214,726)                         | (3.1)%  | \$2,030,786   | 42.3%  |

Customer Premises Equipment Net Sales 2017 vs. 2016

During the year ended December 31, 2017, sales in our CPE segment decreased by approximately \$271.8 million, or 5.7%, as compared to 2016. Video CPE sales declined due to lower volumes and were partially offset by increased Broadband CPE sales due to growth in our DOCSIS portfolio as compared to the same period in 2016. We anticipate the continued trend towards more broadband CPE sales and less video CPE sales as operators adopt all IP networks.

Network & Cloud Net Sales 2017 vs. 2016

During the year ended December 31, 2017, sales in the N&C segment decreased by approximately \$17.6 million, or 0.8%, as compared to 2016. The decrease in sales was primarily a result of lower CMTS hardware sales, which were impacted by the timing of the introduction of our next generation products, as well as lower video product sales. This decrease was partially offset by higher Access Technologies products and software and services sales, as operators continue to build out their networks to accommodate higher bandwidth needs.

Enterprise Networks Net Sales 2017 vs. 2016

During the year ended December 31, 2017, sales in the Enterprise segment was approximately \$45.7 million, primarily a result of the acquisition of Ruckus Networks. Sales in the Enterprise Networks include revenues from sales to service providers that were previously included in the Network and Cloud segment when we were a reseller of Ruckus products.

Customer Premises Equipment Net Sales 2016 vs. 2015

During the year ended December 31, 2016, sales in our CPE segment increased by approximately \$1,610.9 million, or 51.3%, as compared to 2015. The increase was primarily attributable to expansion of both video and broadband products resulting from the Pace combination and our customers' ongoing investment in CPE technology to improve the offering to their subscribers.

Network & Cloud Net Sales 2016 vs. 2015

During the year ended December 31, 2016, sales in the N&C segment increased by approximately \$450.1 million, or 27.1%, as compared to 2015. The increase in sales was primarily a result of the Pace combination and increased customer spend as service providers increase their investment to expand broadband network capacity and high-speed data Internet access speeds.

### Gross Margin

The table below sets forth our gross margin (in thousands, except percentages):

|                                | Gross Margin                     |             |             | Increase (Decrease) Between Periods |        |               |       |
|--------------------------------|----------------------------------|-------------|-------------|-------------------------------------|--------|---------------|-------|
|                                | For the Years Ended December 31, |             |             | 2017 vs. 2016                       |        | 2016 vs. 2015 |       |
|                                | 2017                             | 2016        | 2015        | \$                                  | %      | \$            | %     |
| Gross margin dollars . . . . . | \$1,666,239                      | \$1,707,617 | \$1,418,923 | (41,378)                            | (2.4)% | 288,694       | 20.3% |
| Gross margin . . . . .         | 25.2%                            | 25.0%       | 29.6%       |                                     | 0.2    |               | (4.6) |

During the year ended December 31, 2017, gross margin dollars decreased as compared to the same period in 2016 primarily due to lower sales, a change in product and customer mix, timing of product introductions and memory pricing increases. Pressures on gross margin relating to memory pricing and the competitive landscape for some of our products, particularly in the CPE segment, are expected to continue in the near term and could make it difficult to return to historical gross margin levels. In addition, the gross margins were impacted by \$8.5 million in 2017 associated with writing up the historic cost of inventory, related to acquired businesses, to fair value at the date of acquisition thereby increasing cost of goods sold. The Ruckus Networks acquisition also impacted the gross margin for 2017, due to a proportionately higher average gross margin than the historic ARRIS business.

During the year ended December 31, 2016, gross margin dollars increased primarily due to the Pace combination as compared to 2015. The gross margin percentage decreased primarily due to product mix as compared to 2015. We had a change in mix within our CPE segment, reflecting higher sales of lower margin products. We also had higher sales of CPE products compared to Network and Cloud products. CPE sales have a lower margin than the consolidated average. The gross margin for the year ended December 31, 2016 included a \$51.4 million impact associated with writing up the historic cost of the Pace inventory to fair value at the date of acquisition. In addition, the gross margins were impacted by \$30.2 million associated with a reduction in sales associated with the fair value of the warrant issued to customers.

### Operating Expenses

The table below provides detail regarding our operating expenses (in thousands, except percentages):

|   | Operating Expenses               |                    |                    | Increase (Decrease) Between Periods |               |                  |              |
|---|----------------------------------|--------------------|--------------------|-------------------------------------|---------------|------------------|--------------|
|   | For the Years Ended December 31, |                    |                    | 2017 vs. 2016                       |               | 2016 vs. 2015    |              |
|   | 2017                             | 2016               | 2015               | \$                                  | %             | \$               | %            |
| Selling, general & administrative . . . . .               | \$ 475,369                       | \$ 454,190         | \$ 417,085         | \$ 21,179                           | 4.7%          | \$ 37,105        | 8.9%         |
| Research & development . . . . .                          | 539,094                          | 584,909            | 534,168            | (45,815)                            | (7.8)%        | 50,741           | 9.5%         |
| Amortization of intangible assets . . . . .               | 375,407                          | 397,464            | 227,440            | (22,057)                            | (5.5)%        | 170,024          | 74.8%        |
| Impairment of goodwill and intangible assets . . . . .    | 55,000                           | 2,200              | —                  | 52,800                              | 2,400.0%      | 2,200            | 100.0%       |
| Integration, acquisition, restructuring & other . . . . . | 98,357                           | 158,137            | 29,277             | (59,780)                            | (37.8)%       | 128,860          | 440.1%       |
| Total . . . . .   | <u>\$1,543,227</u>               | <u>\$1,596,900</u> | <u>\$1,207,970</u> | <u>\$(53,673)</u>                   | <u>(3.4)%</u> | <u>\$388,930</u> | <u>32.2%</u> |

In 2017, we have embarked on significant enhancements to our business processes and Enterprise Resource Planning (“ERP”) systems. During 2017, we incurred \$ 12.7 million related to this global ERP effort which is projected to continue into 2019. We expect this project to incur approximately \$5.0 million per quarter going forward.

### *Selling, General, and Administrative, or SG&A, Expenses*

Our selling, general and administrative expenses include sales and marketing costs, including personnel expenses for sales and marketing staff expenses, advertising, trade shows, corporate communications, product marketing expenses and other marketing expenses. In addition, general and administrative expenses consist of personnel expenses and other general corporate expenses for corporate executives, finance and accounting, human resources, facilities, information technology, legal and professional fees.

#### 2017 vs. 2016

The year-over-year increase in SG&A expenses reflects the inclusion of expenses associated with the Ruckus Networks acquisition. In addition, we incurred higher legal fees and professional services, which were partially offset by lower expenses due to reductions in force following the Pace combination in 2016.

#### 2016 vs. 2015

The year-over-year increase in SG&A expenses primarily reflected the inclusion of incremental expenses associated with the Pace combination, as well as higher variable compensation costs. Costs were reduced through the year as Pace was integrated into ARRIS.

### *Research & Development, or R&D, Expenses*

Research and development expenses consist primarily of personnel expenses, payments to suppliers for design services, product certification expenditures to qualify our products for sale into specific markets, prototypes, other consulting fees and reasonable allocations of our information technology and corporate facility costs. Research and development expenses are recognized as they are incurred.

#### 2017 vs. 2016

The decrease year-over-year in R&D expense reflected the result of reduction in force following the Pace combination and the divestiture of certain product lines that occurred during 2016. The decrease was partially offset by an increase from the inclusion of expenses associated with the Ruckus Networks acquisition.

#### 2016 vs. 2015

The increase year-over-year in R&D expense reflected the inclusion of incremental expenses associated with the expanded product portfolio with our acquisition of Pace. Costs were reduced through the year as Pace was integrated into ARRIS.

### *Amortization of Intangible Assets*

Our intangible amortization expense relates to finite-lived intangible assets primarily acquired in business combinations. Intangibles amortization expense was \$375.4 million in 2017, as compared with \$397.5 and \$227.4 million in 2016 and 2015, respectively. The decrease in amortization expense resulted from certain intangible assets becoming fully amortized, which was partially offset by an increase in amortization expense from acquired intangibles associated with the Ruckus acquisition.

### *Impairment of Goodwill and Intangible Assets*

During the fourth quarter of 2017, we recorded partial impairments of goodwill and indefinite-lived trade-names of \$51.2 million and \$3.8 million, respectively, acquired in our ActiveVideo acquisition and included as part of our Cloud TV reporting unit, of which \$19.3 million is attributable to the noncontrolling interest.

In addition, we will adopt new guidance on revenue recognition as of January 1, 2018. As a result of retrospective application of this guidance, an additional goodwill impairment of approximately \$5 million to \$8 million is expected to be recognized in our Cloud TV reporting unit in first quarter of 2018, resulting from the indirect effect of the change in accounting principle, effecting changes in the composition and carrying amount of the net assets.

During 2016, we wrote-off \$2.2 million related to in-process research and development projects acquired in the Pace combination that were subsequently abandoned.

*Integration, Acquisition, Restructuring and Other Costs*

During 2017, we recorded acquisition related expenses and integration expenses of \$77.4 million. These expenses are primarily due to the acquisition of Ruckus Networks and include \$61.5 million related to the cash settlement of stock-based awards held by transferring employees, as well as banker and other fees.

During 2016, we recorded acquisition related expenses and integration expenses of \$53.2 million. These expenses related to the Pace combination and consisted of banker fees, legal fees, integration related outside services and other direct costs of the combination. The Company substantially completed its integration of the Pace business in 2016.

During 2015, we recorded acquisition related expenses and integration expenses of \$28.2 million. The expenses in 2015 were primarily related to the Pace combination completed in 2016 and the ActiveVideo acquisition.

During 2017, 2016 and 2015, we recorded restructuring charges of \$20.9 million, \$96.3 million and \$1.0 million, respectively. The charge in 2017 primarily related to employee severance and contractual obligation costs. The restructuring plan affected approximately 195 positions across the Company and its reportable segments. The charges in 2016 primarily related to employee severance and contractual obligation costs. The restructuring plan affected approximately 1,545 positions across the Company and its reportable segments. The charges in 2015 were related to severance and employee termination benefits.

Other costs of \$8.6 million was recorded during 2016 of which \$1.1 million was related to the loss resulting from the divestitures of certain product lines and \$7.5 million was related to the loss on disposal of property, plant and equipment.

*Direct Contribution*

The table below sets forth our direct contribution, which is defined as gross margin less direct operating expenses (in thousands, except percentages):

|                  | Direct Contribution              |                    |                    | Increase (Decrease) Between Periods |               |                  |              |
|------------------|----------------------------------|--------------------|--------------------|-------------------------------------|---------------|------------------|--------------|
|                  | For the Years Ended December 31, |                    |                    | 2017 vs. 2016                       |               | 2016 vs. 2015    |              |
|                  | 2017                             | 2016               | 2015               | \$                                  | %             | \$               | %            |
| <i>Segment:</i>  |                                  |                    |                    |                                     |               |                  |              |
| CPE .....        | \$ 497,986                       | \$ 684,744         | \$ 548,840         | \$(186,758)                         | (27.3)%       | \$135,904        | 24.8%        |
| N&C .....        | 806,355                          | 681,608            | 487,166            | 124,747                             | 18.3%         | 194,442          | 39.9%        |
| Enterprise ..... | 6,094                            | —                  | —                  | 6,094                               | 100.0%        | —                | —            |
| Total .....      | <u>\$1,310,435</u>               | <u>\$1,366,352</u> | <u>\$1,036,006</u> | <u>\$ (55,917)</u>                  | <u>(4.1)%</u> | <u>\$330,346</u> | <u>31.9%</u> |

*Customer Premises Equipment Direct Contribution 2017 vs. 2016*

During 2017, direct contribution in our CPE segment decreased by approximately 27.3% as compared to the same period in 2016. The decline in direct contribution resulted from lower sales and product mix, as well as lower gross margin due primarily to memory pricing increases and price competition, which are expected to continue in the near-term. Year over year, memory component pricing increased by approximately \$100 million. Our CPE reporting unit has approximately \$1.4 billion of goodwill as of December 31, 2017. The estimated fair value of our CPE reporting unit is closely aligned with the ultimate amount of revenue and operating income that it achieves, and as such, a prolonged or continued erosion in the direct contribution in the CPE segment could result in an impairment of goodwill associated with this business.



*Network & Cloud Direct Contribution 2017 vs. 2016*

During 2017, direct contribution in our N&C segment increased by approximately 18.3% as compared to the same period in 2016. The increase was primarily attributable to the mix of product, including the sale of more software licenses and reductions in operating expenses.

*Enterprise Networks Direct Contribution 2017 vs. 2016*

During 2017, direct contribution in our Enterprise was approximately \$6.1 million. This was primarily a result of the acquisition of Ruckus Networks.

*Customer Premises Equipment Direct Contribution 2016 vs. 2015*

During 2016, direct contribution in our CPE segment increased by approximately 24.8% as compared to the same period in 2015. The increase was primarily attributable the higher sales resulting from the Pace combination, offset by higher R&D, also a result of the Pace combination.

*Network & Cloud Direct Contribution 2016 vs. 2015*

During 2016, direct contribution in our N&C segment increased by approximately 39.9% as compared to the same period in 2015. The increase was primarily attributable to higher sales resulting from the Pace combination.

*Corporate and Unallocated Costs*

There are expenses that are not included in the measure of segment direct contribution and as such are reported as “Corporate and Unallocated Costs” and are included in the reconciliation to income (loss) before income taxes. The “Corporate and Unallocated Costs” category of expenses include corporate sales and marketing, home office general and administrative expenses, annual bonus and equity compensation. “Corporate and Unallocated Costs” also includes corporate sales and marketing for the CPE and N&C segments. Marketing and Sales expenses related to the Enterprise segment are considered a direct operating expense for that segment and are not included in the “Corporate and Unallocated Costs.”

The composition of our corporate and unallocated costs that are reflected in the consolidated statement of operations were as follows (in thousands, except percentages):

|  | Direct Contribution              |                  |                  | Increase (Decrease) Between Periods |               |                |              |
|--|----------------------------------|------------------|------------------|-------------------------------------|---------------|----------------|--------------|
|  | For the Years Ended December 31, |                  |                  | 2017 vs. 2016                       |               | 2016 vs. 2015  |              |
|  | 2017                             | 2016             | 2015             | \$                                  | %             | \$             | %            |
| Cost of sales . . . . .                                | \$ 90,791                        | \$150,588        | \$ 56,311        | (59,797)                            | (39.7)%       | 94,277         | 167.4%       |
| Selling, general & administrative<br>expense . . . . . | 389,753                          | 375,747          | 349,993          | 14,006                              | 3.7%          | 25,754         | 7.4%         |
| Research & development expenses . . . .                | 178,115                          | 171,499          | 162,032          | 6,616                               | 3.9%          | 9,467          | 5.8%         |
| Total . . . . .  | <u>\$658,659</u>                 | <u>\$697,834</u> | <u>\$568,336</u> | <u>(39,175)</u>                     | <u>(5.6)%</u> | <u>129,498</u> | <u>22.8%</u> |

During 2017, corporate and unallocated costs decreased compared to in 2016. During 2017 and 2016, cost of sales included \$8.5 million and \$51.4 million, respectively, associated with the turnaround effect of stepping-up the underlying net book value of acquired inventory to fair market value in our acquisitions, as of the acquisition date.

During 2016, corporate and unallocated costs increased compared to 2015. The increase was primarily due to costs from the Pace combination.

### *Other Expense*

The table below provides detail regarding our other expense (in thousands):

|                                 | Other Expense (Income)           |                  |                  | Increase (Decrease) Between Periods |              |                   |                |
|---------------------------------|----------------------------------|------------------|------------------|-------------------------------------|--------------|-------------------|----------------|
|                                 | For the Years Ended December 31, |                  |                  | 2017 vs. 2016                       |              | 2016 vs. 2015     |                |
|                                 | 2017                             | 2016             | 2015             | \$                                  | %            | \$                | %              |
| Interest expense                | \$ 87,088                        | \$ 79,817        | \$ 70,936        | \$ 7,271                            | 9.1%         | \$ 8,881          | 12.5%          |
| Loss on investments             | 11,066                           | 21,194           | 6,220            | (10,128)                            | (47.8%)      | 14,974            | 240.7%         |
| Loss (gain) on foreign currency | 9,757                            | (13,982)         | 20,761           | 23,739                              | (169.8)%     | (34,743)          | (167.3)%       |
| Interest income                 | (7,975)                          | (4,395)          | (2,379)          | (3,580)                             | (81.5)%      | (2,016)           | (84.7)%        |
| Other expense (income), net     | 1,873                            | 3,991            | 8,362            | (2,118)                             | (53.1)%      | (4,371)           | (52.3)%        |
| Total                           | <u>\$101,809</u>                 | <u>\$ 86,625</u> | <u>\$103,900</u> | <u>\$ 15,184</u>                    | <u>17.5%</u> | <u>\$(17,275)</u> | <u>(16.6)%</u> |

### *Interest Expense*

Interest expense reflects the amortization of debt issuance costs (deferred finance fees and debt discounts) related to our term loans, and interest expense paid on the notes, term loans and other debt obligations.

Interest expense was \$87.1 million in 2017, as compared with \$79.8 million and \$70.9 million in 2016 and 2015, respectively, reflecting the increase in debt resulting from the Pace combination.

During 2017, in connection with amending our credit agreement, we expensed approximately \$4.5 million of debt issuance costs and wrote off approximately \$1.3 million of existing debt issuance costs associated with certain lenders who were not party to the amended term loan facilities, which were included as interest expense in the Consolidated Statements of Income for the year ended December 31, 2017.

Upon the closing of the Pace combination in 2016, we incurred an additional \$2.3 million of debt issuance costs which were capitalized and amortized over the term of the loan.

During 2015, in connection with amending our credit agreement, we expensed approximately \$13.0 million of debt issuance costs and wrote off approximately \$2.1 million of existing debt issuance costs associated with certain lenders who were not party to the amended Term Loan A Facility and Revolving Credit Facility, which were included as interest expense in the Consolidated Statements of Income for the year ended December 31, 2015.

### *Loss on Investments*

We hold certain investments in equity securities of private and publicly-traded companies and investments in rabbi trusts associated with our deferred compensation plans, and certain investments in limited liability companies and partnerships that are accounted for using the equity method of accounting. Our equity portion in current earnings of such investments is included in the loss (gain) on investments.

During the years ended December 31, 2017, 2016 and 2015, we recorded net losses on investment related to these investments of \$11.1 million, \$21.2 million and \$6.2 million, respectively, including impairment charges.

The Company performed an evaluation of its investments and concluded that indicators of impairment existed for certain investments, and that their fair value had declined. This resulted in other-than-temporary impairment charges of \$2.8 million, \$12.3 million and \$0.2 million during the year ended December 31, 2017, 2016 and 2015, respectively.

### *Loss (Gain) on Foreign Currency*

During the years ended December 31, 2017, 2016 and 2015, we recorded net losses (gains) on foreign currency of \$9.8 million, \$(14.0) million and \$20.8 million, respectively. We have U.S. dollar functional

currency entities that bill certain international customers or have liabilities payable in their local currency. Additionally, certain intercompany transactions are denominated in foreign currencies and subject to re-measurement. To mitigate the volatility related to fluctuations in the foreign exchange rates, we have entered into various foreign currency contracts. The gain or loss on foreign currency is driven by the fluctuations in the foreign currency exchange rates.

As part of the Pace combination completed in 2016, we paid the former Pace shareholders 132.5 pence per share in cash consideration, which was approximately 434.3 million British pounds, in the aggregate. We entered into foreign currency forward contracts to purchase British pounds and sell U.S. Dollars in order to mitigate the volatility related to fluctuations in the foreign exchange rate prior to the closing. The contracts fixed the British pound to U.S. dollar forward exchange rate at various rates. These foreign currency forward contracts were effectively terminated upon the close of the combination in January 2016 and cash settled upon maturity on March 31, 2016, which included a loss of \$1.6 million in the first quarter of 2016. During the year ended December 31, 2015, losses of \$22.3 million were recorded related to the British pound forward contracts.

#### *Interest Income*

Interest income reflects interest earned on cash, cash equivalents, and short-term and long-term marketable security investments. During the years ended December 31, 2017, 2016 and 2015, we recorded interest income of \$8.0 million, \$4.4 million and \$2.4 million, respectively.

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

Other expense (income), net for the years ended December 31, 2017, 2016 and 2015 were \$1.9 million, \$4.0 million and \$8.4 million, respectively.

In connection with our acquisition of Motorola Home, we obtained certain foreign tax credit benefits for which we recorded a \$20.5 million liability to Google resulting from certain provisions in the acquisition agreement. During 2015, we recorded income of \$3.7 million to reduce the foreign tax credit attributes and reduce the previously recorded liability to Google to \$16.8 million.

For the year ended December 31, 2015, we recorded a loss of \$5.3 million from the sale of land and building associated with our San Diego campus facilities.

#### *Income Tax Expense*

Our annual provision for income taxes and determination of the deferred tax assets and liabilities requires management to assess uncertainties, make judgments regarding outcomes, and utilize estimates. To the extent the final outcome differs from initial assessments and estimates, future adjustments to our tax assets and liabilities will be necessary.

In 2017, we recorded \$44.9 million of income tax benefit for U.K., U.S. federal and state taxes and other foreign taxes, which was (211.9)% of our pre-tax income of \$21.2 million. The Company's effective income tax rate for 2017 was favorably impacted by \$22.3 million of tax rate changes primarily driven by US Tax Reform, \$25.4 million related to the generation of research and development credits primarily in the U.S., and \$36.2 million of tax benefits from other foreign tax regimes, primarily Luxembourg and Hong Kong.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the "Act") was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017, a new alternative U.S. tax on certain Base Erosion Anti-Avoidance (BEAT) payments from a U.S. company to any foreign related party, a new U.S. tax on certain off-shore earnings referred to as Global Intangible Low-Taxed Income (GILTI), additional limitations on certain executive compensation and limitations on interest deductions. We have calculated our best estimate of the impact of the Act in the year end income tax provision in accordance with our understanding of the Act and guidance available as of the date of this filing and as a result has recorded (\$22.5)

million as an income tax benefit in the fourth quarter of 2017, the period in which the legislation was enacted. The provisional amount related to the remeasurement of certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future was (\$22.3) million. The provisional amount related to the one-time transition tax on the mandatory deemed repatriation of foreign earnings was (\$0.2) million based on cumulative foreign earnings of \$32.4 million.

On December 22, 2017, Staff Accounting Bulletin No. 118 (“SAB 118”) was issued to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Act. In accordance with SAB 118, we have determined that the (\$22.3) million of the deferred tax benefit recorded in connection with the remeasurement of certain deferred tax assets and liabilities and the (\$0.2) million of current tax benefit recorded in connection with the transition tax on the mandatory deemed repatriation of foreign earnings was a provisional amount and a reasonable estimate at December 31, 2017. Additional work is necessary to do a more detailed analysis of historical foreign earnings as well as potential correlative adjustments. Any subsequent adjustment to these amounts will be recorded to tax expense in the quarter of 2018 when the analysis is complete.

In 2016, we recorded \$15.1 million of income tax expense for U.K., U.S. federal and state taxes and other foreign taxes, which was 62.8% of our pre-tax income of \$24.1 million. The Company’s effective income tax rate for 2016 was unfavorably impacted by \$50.8 million of non-recurring items. The Company recorded \$55 million of withholding tax expense in connection with the Pace combination, as well as \$2.1 million of tax expense on expiring net operating losses. The Company also recorded \$7.0 million of net tax benefit relating to the release of valuation allowances.

In 2015, we recorded \$22.6 million of income tax expense for U.S. federal and state taxes and foreign taxes, which was 21.1% of our pre-tax income of \$107.1 million. The Company’s effective income tax rate for 2015 was favorably impacted by \$2.4 million for the following items. The tax benefit was due to the release of \$27.3 million of valuation allowances primarily recorded for U.S. federal net operating losses arising from the acquisition of the Motorola Home business from Google. This benefit was offset unfavorably by \$19.0 million for a gain recognized on the Taiwan entity, \$4.9 million for increases in Subpart F income and \$1.1 million for the recapture of losses upon conversion of ARRIS International Limited to a private limited company. Other favorable items were recorded for U.S. Federal, U.S. State and non-U.S. return to provision items of \$1.3 million and adjustments to uncertain tax positions of \$8.6 million. Other items with an unfavorable impact on the tax rate include adjustments to foreign tax credits received from Google of \$3.7 million, the effect of accelerating the vesting of equity compensation of \$4.1 million and \$2.2 million for the conversion of Active Video to a partnership. In addition, \$20.4 million of current tax benefit was recorded when the President signed legislation to approve the extension of the U.S. federal research and development tax credit permanently. Exclusive of these items, the effective income tax rate would have been approximately 22.6%.

### **Non-GAAP Measures**

ARRIS reports its financial results in accordance with accounting principles generally accepted in the United States (“GAAP” or referred to herein as “reported”). However, management believes that certain non-GAAP financial measures provide management and other users with additional meaningful financial information that should be considered when assessing our ongoing performance. Our management regularly uses our supplemental non-GAAP financial measures internally to understand, manage and evaluate our business and make operating decisions. These non-GAAP measures are among the factors management uses in planning for and forecasting future periods. Non-GAAP financial measures should be viewed in addition to, and not as an alternative to, the Company’s reported results prepared in accordance with GAAP.

|  | Year 2017          |                   | Year 2016          |                   | Year 2015          |                   |
|--|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|
|  | Amount             | Per Diluted Share | Amount             | Per Diluted Share | Amount             | Per Diluted Share |
| Sales .....  | \$6,614,392        |                   | \$6,829,118        |                   | \$4,798,332        |                   |
| Highlighted items:   |                    |                   |                    |                   |                    |                   |
| Reduction in revenue related to warrants .....                     | —                  |                   | 30,158             |                   | —                  |                   |
| Acquisition accounting impacts of deferred revenue .....           | 1,120              |                   | —                  |                   | —                  |                   |
| Adjusted Sales .....   | <u>\$6,615,512</u> |                   | <u>\$6,859,276</u> |                   | <u>\$4,798,332</u> |                   |
| Net income attributable to ARRIS                                   |                    |                   |                    |                   |                    |                   |
| International plc .....  | 92,027             | 0.49              | 18,100             | 0.09              | 92,181             | 0.62              |
| Highlighted Items: .....   |                    |                   |                    |                   |                    |                   |
| <i>Impacting gross margin:</i> .....                               |                    |                   |                    |                   |                    |                   |
| Stock-based compensation expense .....                             | 13,947             | 0.07              | 9,397              | 0.05              | 8,508              | 0.06              |
| Reduction in revenue related to warrants .....                     | —                  | —                 | 30,159             | 0.16              | —                  | —                 |
| Acquisition accounting impacts of deferred revenue .....           | 1,120              | 0.01              | —                  | —                 | —                  | —                 |
| Acquisition accounting impacts of fair valuing inventory .....     | 8,468              | 0.04              | 51,405             | 0.27              | —                  | —                 |
| <i>Impacting operating expenses:</i> .....                         |                    |                   |                    |                   |                    |                   |
| Integration, acquisition, restructuring and other costs .....      | 98,357             | 0.52              | 152,810            | 0.79              | 29,277             | 0.20              |
| Impairment of goodwill and intangible assets .....                 | 55,000             | 0.29              | —                  | —                 | —                  | —                 |
| Amortization of intangible assets ....                             | 375,407            | 1.98              | 397,464            | 2.07              | 227,440            | 1.52              |
| Stock-based compensation expense .....                             | 66,711             | 0.35              | 50,652             | 0.26              | 55,710             | 0.37              |
| Noncontrolling interest share of Non-GAAP adjustments .....        | (22,352)           | (0.12)            | (3,145)            | (0.02)            | (2,947)            | (0.02)            |
| <i>Impacting other (income)/expense:</i> ....                      |                    |                   |                    |                   |                    |                   |
| Impairment (gain) on investments ...                               | 929                | —                 | 12,297             | 0.06              | (9)                | —                 |
| Debt amendment fees .....  | 5,851              | 0.03              | (237)              | —                 | 15,342             | 0.10              |
| Credit facility — ticking fees .....                               | —                  | —                 | (9)                | —                 | 1,700              | 0.01              |
| Foreign exchange contract losses related to Pace combination ..... | —                  | —                 | 1,610              | 0.01              | 22,283             | 0.15              |
| Remeasurement of deferred taxes ...                                | 9,360              | 0.05              | (16,356)           | (0.09)            | —                  | —                 |
| Adjustment to liability related to foreign tax credits .....       | —                  | —                 | —                  | —                 | (3,669)            | (0.02)            |
| Loss on sale of building .....                                     | —                  | —                 | —                  | —                 | 5,142              | 0.03              |
| <i>Impacting income tax expense:</i> .....                         |                    |                   |                    |                   |                    |                   |
| Foreign withholding tax .....                                      | —                  | —                 | 54,741             | 0.28              | —                  | —                 |
| Income tax expense .....   | (190,151)          | (1.00)            | (208,524)          | (1.08)            | (128,864)          | (0.86)            |
| Total highlighted items .....                                      | <u>422,647</u>     | <u>2.22</u>       | <u>532,264</u>     | <u>2.77</u>       | <u>229,913</u>     | <u>1.54</u>       |
| Adjusted net income .....  | <u>514,674</u>     | <u>2.71</u>       | <u>550,364</u>     | <u>2.86</u>       | <u>322,094</u>     | <u>2.16</u>       |

|  | Year 2017 |                   | Year 2016 |                   | Year 2015 |                   |
|--|-----------|-------------------|-----------|-------------------|-----------|-------------------|
|  | Amount    | Per Diluted Share | Amount    | Per Diluted Share | Amount    | Per Diluted Share |
| Weighted average common shares — basic . . . . .   |           | 187,133           |           | 190,701           |           | 146,388           |
| Weighted average common shares — diluted . . . . . |           | 189,616           |           | 192,185           |           | 149,359           |

Our non-GAAP financial measures reflect adjustments based on the following items, as well as the related income tax effects:

Reduction in Revenue Related to Warrants: We entered into agreements with two customers for the issuance of warrants to purchase up to 14.0 million of ARRIS’s ordinary shares. Vesting of the warrants is subject to certain purchase volume commitments, and therefore the accounting guidance requires that we record any change in the fair value of warrants as a reduction in revenue. Until final vesting, changes in the fair value of the warrants will be marked to market and any adjustment recorded in revenue. We have excluded the effect of the implied fair value in calculating our non-GAAP financial measures. We believe it is useful to understand the effects of these items on our total revenues and gross margin.

Acquisition Accounting Impacts Related to Deferred Revenue: In connection with the accounting related to our acquisitions, business combination rules require us to account for the fair values of deferred revenue arrangements for post contract support in our purchase accounting. The non-GAAP adjustment to our sales and cost of sales is intended to include the full amounts of such revenues as if these purchase accounting adjustments had not been applied. We believe the adjustment to these revenues is useful as a measure of the ongoing performance of our business. We historically have experienced high renewal rates related to our support agreements, and our objective is to increase the renewal rates on acquired post contract support agreements. However, we cannot be certain that our customers will renew their contracts.

Stock-Based Compensation Expense: We have excluded the effect of stock-based compensation expenses in calculating our non-GAAP operating expenses and net income (loss) measures. Although stock-based compensation is a key incentive offered to our employees, we continue to evaluate our business performance excluding stock-based compensation expenses. We record non-cash compensation expense related to grants of restricted stock units. Depending upon the size, timing and the terms of the grants, the non-cash compensation expense may vary significantly but will recur in future periods.

Acquisition Accounting Impacts Related to Inventory Valuation: In connection with the accounting related to our acquisitions, business combinations rules require the acquired inventory be recorded at fair value on the opening balance sheet. This is different from historical cost. Essentially, we are required to write the inventory up to the end customer price less a reasonable margin as a distributor. We have excluded the resulting adjustments in inventory and cost of goods sold as the historic and forward gross margin trends will differ as a result of the adjustments. We believe it is useful to understand the effects of this on cost of goods sold and margin.

Integration, Acquisition, Restructuring and Other Costs: We have excluded the effect of acquisition, integration, and other expenses and the effect of restructuring expenses in calculating our non-GAAP operating expenses and net income measures. We incurred expenses in connection with the ActiveVideo, Motorola Home, Pace and Ruckus Networks acquisitions, which we generally would not otherwise incur in the periods presented as part of our continuing operations. Acquisition and integration expenses consist of transaction costs, costs for transitional employees, other acquired employee related costs, and integration related outside services. Restructuring expenses consist of employee severance, abandoned facilities, product line disposition and other exit costs. We believe it is useful to understand the effects of these items on our total operating expenses.

Impairment of Goodwill and Intangible Assets: We have excluded the effect of the estimated impairment of goodwill and intangible assets in calculating our non-GAAP operating expenses and net income measures. Although an impairment does not directly impact the Company’s current cash position, such expense represents the declining value of the technology and other intangible assets that were acquired. We exclude these impairments when significant and they are not reflective of ongoing business and operating results.

Amortization of Intangible Assets: We have excluded the effect of amortization of intangible assets in calculating our non-GAAP operating expenses and net income (loss) measures. Amortization of intangible assets is non-cash, and is inconsistent in amount and frequency and is significantly affected by the timing and size of our acquisitions. Investors should note that the use of intangible assets contributed to our revenues earned during the periods presented and will contribute to our future period revenues as well. Amortization of intangible assets will recur in future periods.

Noncontrolling Interest share of Non-GAAP Adjustments: The joint venture formed for the ActiveVideo acquisition is accounted for by ARRIS under the consolidation method. As a result, the consolidated Statements of Income include the revenues, expenses, and gains and losses of the noncontrolling interest. The amount of net income (loss) related to the noncontrolling interest are reported and presented separately in the consolidated Statements of Income. We have excluded the noncontrolling share of any non-GAAP adjusted measures recorded by the venture, as we believe it is useful to understand the effect of excluding this item when evaluating our ongoing performance.

Impairment (Gain) on Investments: We have excluded the effect of other-than-temporary impairments and certain gains on investments in calculating our non-GAAP financial measures. We believe it is useful to understand the effect of this non-cash item in our other expense (income).

Debt Amendment Fees: In 2017 and 2015, the Company amended its credit agreement. This debt modification allowed us to improve the terms and conditions of the credit agreement, extend the maturities of certain loan facilities, increase the amount of the revolving credit facility, and add new term loan facility. We have excluded the effect of the associated fees in calculating our non-GAAP financial measures. We believe it is useful to understand the effect of this item in our other expense (income).

Credit Facility — Ticking Fees: In connection with the Pace combination, the cash portion of the consideration was funded through debt financing commitments. A ticking fee was a fee paid to our banks to compensate for the time lag between the commitment allocation on a loan and the actual funding. We have excluded the effect of the ticking fee in calculating our non-GAAP financial measures. We believe it is useful to understand the effect of this item in our other expense (income).

Foreign Exchange Contract Losses Related to Pace Combination: In the second quarter of 2015, the Company announced its intent to acquire Pace in exchange for stock and cash. We subsequently entered into foreign exchange forward contracts in order to hedge the foreign currency risk associated with the cash consideration of the Pace combination. These foreign exchange forward contracts were not designated as hedges, and accordingly, all changes in the fair value of these instruments are recognized as a loss (gain) on foreign currency in the Consolidated Statements of Income. We believe it is useful to understand the effect of this on our other expense (income).

Remeasurement of Deferred Taxes: The Company records foreign currency remeasurement gains and losses related to deferred tax liabilities in the United Kingdom. The foreign currency remeasurement gains and losses derived from the remeasurement of the deferred income taxes from GBP to USD. We have excluded the impact of these gains and losses in the calculation of our non-GAAP measures. We believe it is useful to understand the effects of this item on our total other expense (income).

Adjustment to Liability Related to Foreign Tax Credits: In connection with our acquisition of Motorola Home, we obtained certain foreign tax credit benefits for which we have recorded a liability to Google resulting from certain provisions in the acquisition agreement. The expense and subsequent adjustments related to this liability has been recorded as part of other expense (income). We have excluded the effect of the expense in the calculation of our non-GAAP financial measures. We believe it is useful to understand the effects of this item on our total other expense (income).

Loss on Sale of Building: In the first quarter of 2015, the Company sold land and a building that qualified for sale-leaseback accounting and was classified as an operating lease. A loss has been recorded on the sale. We have excluded the effect of the loss on sale of property in calculating our non-GAAP financial measures. We believe it is useful to understand the effect of excluding this item when evaluating our ongoing performance.

**Foreign Withholding Tax:** In connection with the Pace combination, ARRIS U.S. Holdings, Inc. transferred shares of its subsidiary ARRIS Financing II Sarl to ARRIS International. Under U.S. tax law, based on the best available information, we believe the transfer constituted a deemed distribution from ARRIS U.S. Holdings Inc. to ARRIS International that is treated as a dividend for U.S. tax purposes. A deemed dividend of this type is subject to U.S. withholding tax to the extent of the current and accumulated earnings and profits (as computed for tax purposes) (“E&P”) of ARRIS U.S. Holdings Inc., which include the E&P of the former ARRIS Group and subsidiaries through December 31, 2016. Accordingly, ARRIS U.S. Holdings Inc. remitted U.S. withholding tax in the amount of \$55 million based upon its estimated E&P of \$1.1 billion and the U.S. dividend withholding tax rate of 5 percent (as provided in Article 10 (Dividends) of the United Kingdom-United States Tax Treaty). We have excluded the withholding tax in calculating our non-GAAP financial measures.

**Income Tax Expense (Benefit):** We have excluded the tax effect of the non-GAAP items mentioned above. Additionally, we have excluded the effects of certain tax adjustments related to tax and legal restructuring, state valuation allowances, research and development tax credits and provision to return differences.

## Financial Liquidity and Capital Resources

### Overview

One of our key strategies is to ensure we have adequate liquidity and the financial flexibility to support our strategy, including acquisitions. The key metrics we focus on are summarized in the table below:

### Liquidity & Capital Resources Data

|  | Year Ended December 31,              |              |              |
|--|--------------------------------------|--------------|--------------|
|  | 2017                                 | 2016         | 2015         |
|  | (in thousands, except DSO and Turns) |              |              |
| <i>Key Working Capital Items</i>                   |                                      |              |              |
| Cash provided by operating activities              | \$ 533,837                           | \$ 362,495   | \$ 343,872   |
| Cash, cash equivalents, and short-term investments | \$ 511,447                           | \$ 1,095,676 | \$ 879,052   |
| Long-term U.S corporate bonds                      | \$ —                                 | \$ 10,998    | \$ —         |
| Accounts Receivable, net                           | \$ 1,218,088                         | \$ 1,359,430 | \$ 651,893   |
| -Days Sales Outstanding                            | 63                                   | 61           | 48           |
| Inventory, net                                     | \$ 825,211                           | \$ 551,541   | \$ 401,592   |
| - Turns  | 7.2                                  | 8.6          | 8.4          |
| <i>Key Financing Items</i>                         |                                      |              |              |
| Term loans at face value                           | \$ 2,161,400                         | \$ 2,229,563 | \$ 1,509,063 |
| Proceeds from issuance of debt                     | \$ 175,847                           | \$ 800,000   | \$ —         |
| Cash used for debt repayment                       | \$ 244,009                           | \$ 319,750   | \$ 53,500    |
| Financing lease obligation                         | \$ 61,321                            | \$ 58,010    | \$ 58,687    |
| Cash used for share repurchases                    | \$ 196,965                           | \$ 178,035   | \$ 24,999    |
| <i>Key Investing Items</i>                         |                                      |              |              |
| Cash used for acquisitions, net of cash acquired   | \$ 760,802                           | \$ 340,118   | \$ 97,905    |
| Capital Expenditures                               | \$ 78,072                            | \$ 66,760    | \$ 49,890    |

In managing our liquidity and capital structure, we remain focused on key goals, and we have and will continue in the future to implement actions to achieve them. They include:

- Liquidity — ensure that we have sufficient cash resources or other short-term liquidity to manage day to day operations.



- Growth — implement a plan to ensure that we have adequate capital resources, or access thereto, to fund internal growth and execute acquisitions.
- Deleverage — reduce our debt obligations.
- Share repurchases — opportunistically repurchase our ordinary shares.

#### *Accounts Receivable*

We use the number of times per year that inventory turns over (based upon sales for the most recent period, or turns) to evaluate inventory management, and days sales outstanding, or DSOs, to evaluate accounts receivable management.

Accounts receivable at the end of 2017 decreased as compared to the end of 2016, primarily due to the timing of purchases by customers in late 2016. DSO increased in 2017, primarily reflecting a larger international mix.

Accounts receivable increased at the end of 2016 as compared to 2015, primarily due to the inclusion of sales associated with the Pace products, which were not included in 2015, as well as payment patterns and timing of shipments to customers. As part of the Pace combination, we acquired approximately \$452.3 million of accounts receivable. Our DSO increased year over year as a result of the timing of sales and payment patterns of customers.

Accounts receivable at the end of 2015 increased as compared to the end of 2014, primarily due to payment patterns of our customers and timing of shipments to customers. DSOs increased reflecting a larger international mix.

#### *Inventory*

Inventory at the end of 2017 increased as compared to the end of 2016, reflecting timing of shipments to customers and anticipated demand for certain products, inventory acquired in the Ruckus acquisition, and the impact of transitioning component inventories from outsourced assemblers to in-house production. We anticipate a reduction in inventory in 2018.

Inventory increased at the end of 2016 as compared to 2015, primarily due to the Pace combination. We acquired approximately \$427.6 million of inventory upon closing of the Pace combination in January 2016. Inventory turns increased year over year reflecting timing of shipments to customers.

Inventory at the end of 2015 was similar to that of the end of 2014, however, inventory turns were lower in 2015 reflecting the timing of customer requirements and anticipated demand for certain products.

#### *Debt Repayments and Proceeds*

In 2017, we repaid \$91.7 million of our term debt. With regards to our Term Loan B facility, we repaid \$29.1 million in debt to exiting lenders and recorded proceeds from issuance of debt of \$30.3 million. With regards to our Term Loan A and A-1, we repaid \$123.2 million in debt to exiting lenders and recorded proceeds from issuance of debt of \$145.5 million.

In 2016, we repaid \$79.5 million of our term debt as well as \$240.2 million of debt assumed and settled in conjunction with the Pace combination in January 2016. In addition, we received proceeds upon the closing of the Pace combination for our Term Loan A-1 Facility of \$800 million.

In 2015, we repaid \$53.5 million of our term debt, of which \$38.5 million was term debt under our senior secured credit facilities and \$15.0 million was term debt assumed and settled in conjunction with the Active-Video acquisition in April 2015.

### *Financing Lease Obligation*

In 2015, we sold our San Diego office complex consisting of land and buildings. We concurrently entered into a leaseback arrangement for two of the buildings (Building 1 and Building 2). Building 1 did not qualify for sale leaseback accounting due to continuing involvement that will exist for the 10-year lease term. Accordingly, the carrying amount of Building 1 will remain on the Company's balance sheet and will be depreciated over the ten-year lease period with the proceeds reflected as a financing obligation.

### *Share Repurchases*

Upon completing the Pace combination, we conducted a court-approved process in accordance with section 641(1)(b) of the UK Companies Act 2006, pursuant to which we reduced our stated share capital and thereby increased our distributable reserves or excess capital out of which we may legally pay dividends or repurchase shares. Distributable reserves are not linked to a U.S. GAAP reported amount.

In 2016, our Board of Directors approved a \$300 million share repurchase authorization replacing all prior programs. In early 2017, the Board authorized an additional \$300 million for share repurchases. Unless terminated earlier by a Board resolution, this new plan will expire when ARRIS has used all authorized funds for repurchase. The remaining authorized amount for stock repurchases under this plan was \$225.0 million as of December 31, 2017. However, U.K. law also generally prohibits a company from repurchasing its own shares through "off market purchases" without prior approval of shareholders because we are not traded on a recognized investment exchange in the U.K. This shareholder approval lasts for a maximum period of five years. Prior to and in connection with the Pace combination, we obtained approval to purchase our own shares. This authority to repurchase shares terminates in January 2021, unless otherwise reapproved by our shareholders.

During 2017, we repurchased 7.5 million ordinary shares for \$197.0 million at an average stock price of \$26.12. During 2016, we repurchased 7.4 million of our ordinary shares for \$178.0 million at an average stock price of \$24.09. During 2015, we repurchased 0.9 million shares of our stock for \$25.0 million at an average stock price of \$28.70.

### *Summary of Current Liquidity Position and Potential for Future Capital Raising*

We believe our current liquidity position, where we had approximately \$511.4 million of cash, cash equivalents, short-term investments on hand as of December 31, 2017, together with approximately \$498.3 million in availability under our Revolving Credit Facility, and the prospects for continued generation of cash from operations, are adequate for our short- and medium-term business needs. Our cash, cash-equivalents and short-term investments as of December 31, 2017 include approximately \$364.6 million held by all non-U.S. subsidiaries. Of that amount, \$64.3 million was held by non-U.S. subsidiaries legally owned by ARRIS U.S. entities whose earnings we expect to reinvest indefinitely outside of the United States. We do not expect to need the cash generated by those non-U.S. subsidiaries to fund our U.S. operations. However, in the unforeseen event that we repatriate cash from those non-U.S. subsidiaries, we may be required to provide for and pay U.S. taxes on permanently repatriated funds.

We have subsidiaries in countries that maintain restrictions, such as legal reserves, with respect to the dividend amount that the subsidiaries can distribute. Additionally, some countries impose restrictions or controls over how and when dividends can be paid by these subsidiaries. While we do not currently intend to repatriate earnings from entities in these countries, if we were to be required to distribute earnings from such countries, the timing of the distribution and the funds available to distribute, would be adversely impacted by these restrictions.

We expect to be able to generate sufficient cash on a consolidated basis to make all of the principal and interest payments under our senior secured credit facilities. Should our available funds be insufficient to support these initiatives or our operations, it is possible that we will raise capital through private or public, share or debt offerings.

### Senior Secured Credit Facilities

On December 20, 2017, we entered into a Fourth Amendment (the “Fourth Amendment”) to our Amended and Restated Credit Facility dated June 18, 2015, as previously amended on December 14, 2015, April 26, 2017, and October 17, 2017 (the “Credit Agreement”). The Fourth Amendment provided for a new Term B Loan facility in the principal amount of \$542.3 million, the proceeds of which (along with cash on hand) were used to repay in full the existing Term B Loan facility. Under the terms of the Fourth Amendment, the maturity date of the new Term B Loan facility remains April 26, 2024, but the new Term B Loan facility has an interest rate of LIBOR (as defined in the Credit Agreement) plus a percentage ranging from 2.00% to 2.25% for Eurocurrency Loans (as defined in the Credit Agreement) or the prime rate (as determined in accordance with the Credit Agreement) plus a percentage ranging from 1.00% to 1.25% for Base Rate Loans (as defined in the Credit Agreement), in either case depending on ARRIS’s Consolidated Net Leverage Ratio. The Fourth Amendment also increased to \$500 million the amount of cash that can be used to offset indebtedness in the calculation of the Consolidated Net Leverage Ratio for purposes of determining the applicable interest rate. All other material terms of the Credit Agreement remained unchanged.

On October 17, 2017, we entered into the Third Amendment and Consent (the “Third Amendment”) to the Credit Agreement. Pursuant to the Third Amendment, ARRIS (i) incurred “Refinancing Term A Loans” of \$391 million, (ii) incurred “Refinancing Term A-1 Loans” of \$1,250 million, and (iii) obtained a “Refinancing Revolving Credit Facility” of \$500 million, the proceeds of which were used to refinance in full the existing Term A Loans, the existing Term A-1 Loans and the existing Revolving Credit Loans outstanding under the Credit Agreement immediately prior to the effectiveness of the Third Amendment. The existing Term B Loans were not refinanced and remain outstanding.

The Third Amendment extended the maturity date of the Term A Loans and the Revolving Credit Facility to October 17, 2022. Pursuant to the Third Amendment, ARRIS is subject to a minimum consolidated interest coverage ratio test, which is unchanged from the Credit Agreement. In addition, the Company is subject to a maximum consolidated net leverage ratio test of not more than 4.0:1.0, subject to a step-down to 3.75:1.00 commencing with the fiscal quarter ending March 31, 2019. The amount of unrestricted cash used to offset indebtedness in the calculation of the consolidated net leverage ratio was also increased from \$200 million to \$500 million. The interest rates under the Third Amendment were not changed.

On April 26, 2017, we entered into a Second Amendment (the “Second Amendment”) to the Credit Agreement. The Second Amendment provided for a new Term B Loan facility in the principal amount of \$545 million, the proceeds of which (along with cash on hand) were used to repay the existing Term B Loan facility. Under the terms of the Second Amendment, the new Term B-2 Loan has a maturity date of April 2024 and an interest rate of LIBOR plus a percentage ranging from 2.25% to 2.50% for Eurocurrency Rate Loans (as defined in the Credit Agreement), or the prime rate plus a percentage ranging from 1.25% to 1.50% for Base Rate Loans (as defined in the Amended Credit Agreement), in either case depending on the Company’s consolidated net leverage ratio.

Interest rates on borrowings under the senior secured credit facilities are set forth in the table below. As of December 31, 2017, we had \$386.1 million, \$1,234.4 million and \$540.9 million principal amounts outstanding under the Term Loan A, Term Loan A-1 and Term Loan B-3 Facilities. No borrowings existed under the Revolving Credit Facility and there were letters of credit totaling \$1.7 million issued under the Revolving Credit Facility.

|  | <u>Rate</u>    | <u>As of December 31, 2017</u> |
|--|----------------|--------------------------------|
| Term Loan A .....                              | LIBOR + 1.75 % | 3.32%                          |
| Term Loan A-1 .....                            | LIBOR + 1.75 % | 3.32%                          |
| Term Loan B-3 .....                            | LIBOR + 2.25 % | 3.82%                          |
| Revolving Credit Facility <sup>(1)</sup> ..... | LIBOR + 1.75 % | Not Applicable                 |

(1) Includes unused commitment fee of 0.30% and letter of credit fee of 1.75% not reflected in interest rate above.

The Credit Agreement provides for certain adjustments to the interest rates paid on the Term Loan A, Term Loan A-1, Term Loan B-3 and Revolving Credit Facility based upon the achievement of certain leverage ratios.

Borrowings under the senior secured credit facilities are secured by first priority liens on substantially all of the assets of ARRIS and certain of its present and future subsidiaries who are or become parties to, or guarantors under, the Credit Agreement governing the senior secured credit facilities. The Credit Agreement provides terms for mandatory prepayments and optional prepayments and commitment reductions. The Credit Agreement also includes events of default, which are customary for facilities of this type (with customary grace periods, as applicable), including provisions under which, upon the occurrence of an event of default, all amounts outstanding under the credit facilities may be accelerated. The Credit Agreement contains usual and customary limitations on indebtedness, liens, restricted payments, acquisitions and asset sales in the form of affirmative, negative and financial covenants, which are customary for financings of this type, including the maintenance of a minimum interest coverage ratio and a maximum leverage ratio. As of December 31, 2017, ARRIS was in compliance with all covenants under the Credit Agreement.

In connection with the Pace combination, ARRIS assumed an accounts receivable financing program which was entered into by Pace on June 30, 2015. Under this program, ARRIS assigned trade receivables on a revolving basis of up to \$50 million to the lender and the lender advanced 95% of the receivable value to us. The remaining 5% was remitted to ARRIS upon receipt of cash from the customer.

The accounts receivable financing program is accounted for as secured borrowings and amounts outstanding are included in the current portion of long-term debt on the consolidated balance sheet. We pay certain transaction fees and interest of 1.23% on the outstanding balance in connection with this program.

As of December 31, 2016, we had no outstanding balance under this program and the program was terminated as of June 30, 2017.

#### *Commitments*

Following is a summary of our contractual obligations as of December 31, 2017 (in thousands):

| <u>Contractual Obligations</u>                                    | <u>Payments due by period</u> |                  |                    |                          | <u>Total</u>       |
|---|-------------------------------|------------------|--------------------|--------------------------|--------------------|
|   | <u>Less than 1 Year</u>       | <u>1-3 Years</u> | <u>3-5 Years</u>   | <u>More than 5 Years</u> |                    |
| Credit facilities <sup>(1)</sup> . . . . .                        | \$ 87,500                     | \$175,000        | \$1,385,238        | \$513,662                | \$2,161,400        |
| Operating leases, net of sublease income <sup>(2)</sup> . . . . . | 46,637                        | 75,290           | 59,550             | 57,260                   | 238,737            |
| Purchase obligations <sup>(3)</sup> . . . . .                     | 772,086                       | —                | —                  | —                        | 772,086            |
| Total contractual obligations <sup>(4)</sup> . . . . .            | <u>\$906,223</u>              | <u>\$250,290</u> | <u>\$1,444,788</u> | <u>\$570,922</u>         | <u>\$3,172,223</u> |

- (1) Represents the face value of loans outstanding under our credit facility
- (2) Includes leases which are reflected in restructuring accruals on the consolidated balance sheets.
- (3) Represents obligations under agreements with non-cancelable terms to purchase goods or services. The agreements are enforceable and legally binding, and specify terms, including quantities to be purchased and the timing of the purchase.
- (4) Approximately \$148.6 million of net uncertain tax positions have been excluded from the contractual obligation table because we are unable to make reasonably reliable estimates of the period of cash settlement with the respective taxing authorities.

#### *Off-Balance Sheet Arrangements*

We do not have any material off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K.

### Cash Flow

Below is a table setting forth the key line items of our Consolidated Statements of Cash Flows (in thousands):

|  | <u>2017</u>               | <u>2016</u>              | <u>2015</u>             |
|--|---------------------------|--------------------------|-------------------------|
| <i>Cash provided by (used in):</i> .....                   |                           |                          |                         |
| Operating activities .....                                 | \$ 533,837                | \$ 362,495               | \$343,872               |
| Investing activities .....                                 | (747,662)                 | (524,509)                | (45,946)                |
| Financing activities .....                                 | (277,469)                 | 290,652                  | (134)                   |
| Effect of exchange rate changes .....                      | (1,256)                   | (12,097)                 | —                       |
| Net (decrease) increase in cash and cash equivalents ..... | <u><u>\$(492,550)</u></u> | <u><u>\$ 116,541</u></u> | <u><u>\$297,792</u></u> |

In the Consolidated Statements of Cash Flows, changes in operating assets and liabilities are presented excluding the effects of changes in foreign currency exchange rates and the effects of acquisitions. Accordingly, the amounts in the consolidated statements of cash flows differ from changes in the operating assets and liabilities that are presented in the Consolidated Balance Sheets.

### Operating Activities:

Below are the key line items affecting cash from operating activities (in thousands):

|  | <u>2017</u>              | <u>2016</u>              | <u>2015</u>             |
|--|--------------------------|--------------------------|-------------------------|
| Consolidated net income .....  | \$ 66,124                | \$ 8,961                 | \$ 84,459               |
| Adjustments to reconcile net income to cash provided by operating activities ..... | <u>567,585</u>           | <u>441,592</u>           | <u>395,648</u>          |
| Net income including adjustments .....   | 633,709                  | 450,553                  | 480,107                 |
| Decrease (increase) in accounts receivable .....                                   | 175,930                  | (258,677)                | (55,132)                |
| (Increase) decrease in inventory .....   | (224,582)                | 282,644                  | (6,685)                 |
| Increase (decrease) in accounts payable and accrued liabilities .....              | 49,988                   | (178,086)                | 15,065                  |
| All other, net .....   | <u>(101,208)</u>         | <u>66,061</u>            | <u>(89,483)</u>         |
| Cash provided by operating activities .....  | <u><u>\$ 533,837</u></u> | <u><u>\$ 362,495</u></u> | <u><u>\$343,872</u></u> |

### 2017 vs. 2016

Consolidated net income including adjustments, as per the table above, increased \$183.2 million during 2017 as compared to 2016. It should be noted that net income in 2017 includes 1) \$61.5 million of expense related to the cash settlement of stock-based awards held by transferring employees in our Ruckus acquisition and 2) restructuring costs of \$20.9 million, and 3) inventory step-up in fair market value of \$8.5 million. The net income reflected in 2016 includes: 1) restructuring costs of \$96.3 million, 2) withholding tax of \$54.7 million and 3) inventory step-up in fair market value of \$51.4 million. These 2016 items were either not present or less significant in 2017.

Accounts receivable decreased \$175.9 million in 2017. This increase was primarily a result of purchasing pattern and payment patterns of our customers.

Inventory increased by \$224.6 million in 2017, reflecting timing of customer requirements and anticipated demand for certain products, inventory acquired in the Ruckus acquisition, and the transition of component inventory from outsourced assemblers to in-house production. In 2017 and 2016, we recognized reductions of \$8.5 million and \$51.4 million, respectively, related to turnaround effects of inventory markups in acquisition accounting. We anticipate reducing inventory in 2018.

Accounts payable and accrued liabilities increased by \$50.0 million in 2017. The change reflects an increase in accounts payable due to timing of payments primarily for inventory and was partially offset by reduction in accrued expenses and deferred revenues.

All other accounts, net, include the changes in other receivables, income taxes payable (recoverable), and prepaids. The other receivables represent amounts due from our contract manufacturers for material used in the assembly of our finished goods. The change in our income taxes recoverable account is a result of the timing of the actual estimated tax payments during the year as compared to the actual tax liability for the year. The net change during 2017 was approximately \$101.2 million as compared to \$66.1 million in 2016.

2016 vs. 2015

Consolidated net (loss) income including adjustments, decreased \$29.6 million during 2016 as compared to 2015. The net loss reflected in the 2016 includes: 1) restructuring costs of \$96.3 million, 2) acquisition and integration costs of \$53.2 million, 3) withholding tax of \$54.7 million and 4) inventory step-up in fair market value of \$51.4 million. These items were either not present or were insignificant in 2015.

Accounts receivable increased by \$258.7 million during 2016. The increase was primarily a result of normal purchasing pattern and payment patterns of our customers. A significant component of this change was an increase in accounts receivable due to the acquisition of Pace.

Inventory decreased by \$282.6 million during 2016, reflecting the timing of customer requirements and anticipated demand for certain products. In 2016, there was a \$51.4 million reduction related to turnaround effect of inventory markup in acquisition accounting.

Accounts payable and accrued liabilities decreased by \$178.1 million during 2016, reflecting timing of payments. The Company acquired \$799.8 million of accounts payable and accrued liabilities as part of the Pace combination. We acquired \$298.7 million of cash as part of the Pace combination. This cash is netted against the cash used for acquisitions in the investing section of the cash flow statement and is not included in the operating section.

All other accounts, net, include changes in other receivables, income taxes payable (recoverable), and pre-paid expenses. The other receivables represent amounts due from our contract manufacturers for material used in the assembly of our finished goods. The change in our income taxes recoverable account is a result of the timing of the actual estimated tax payments during the year as compared to the actual tax liability for the year.

Investing Activities:

Below are the key line items affecting investing activities (in thousands):

|  | <u>2017</u>               | <u>2016</u>               | <u>2015</u>              |
|--|---------------------------|---------------------------|--------------------------|
| Purchases of investments . . . . .                   | \$ (68,493)               | \$(141,543)               | \$(48,566)               |
| Sales of investments . . . . .                       | 165,301                   | 25,931                    | 161,824                  |
| Purchases of property, plant and equipment . . . . . | (78,072)                  | (66,760)                  | (49,890)                 |
| Purchase of intangible assets . . . . .              | (6,422)                   | (5,526)                   | (39,340)                 |
| Proceeds from sale-leaseback transaction . . . . .   | —                         | —                         | 24,960                   |
| Acquisitions, net of cash acquired . . . . .         | (760,802)                 | (340,118)                 | (97,905)                 |
| Other, net . . . . .                                 | <u>826</u>                | <u>3,507</u>              | <u>2,971</u>             |
| Cash used in investing activities . . . . .          | <u><u>\$(747,662)</u></u> | <u><u>\$(524,509)</u></u> | <u><u>\$(45,946)</u></u> |

*Purchases and sales of investments* — Represents purchases and sales of securities and other investments.

*Purchases of property, plant and equipment* — Represents capital expenditures which are mainly for test equipment, laboratory equipment, and computer and networking equipment and facilities.

*Purchase of intangible assets* — Represent primarily the purchase of patents and technology licenses.

*Proceeds from sale-leaseback transaction* — Represent proceeds received from the sale of land and building that qualified for sale leaseback accounting.

*Acquisitions, net of cash acquired* — Represents cash investments we have made in our various acquisitions. See Note 4 *Business Acquisitions* of Notes to the Consolidated Financial Statements for disclosures related to acquisitions.

*Other, net* — Represent dividend proceeds received from equity investments and cash proceeds received from sale of product line and assets.

*Financing Activities:*

Below are the key items affecting our financing activities (in thousands):

|  | <u>2017</u>         | <u>2016</u>       | <u>2015</u>     |
|--|---------------------|-------------------|-----------------|
| Proceeds from issuance of shares, net . . . . .                    | \$ 17,469           | \$ 12,885         | \$ 16,189       |
| Repurchase of shares . . . . .                                     | (196,965)           | (178,035)         | (24,999)        |
| Excess tax benefits from stock-based compensation plans . . . . .  | —                   | 20,085            | 3,997           |
| Repurchase of shares to satisfy minimum tax withholdings . . . . . | (26,573)            | (17,925)          | (46,680)        |
| Proceeds from issuance of debt . . . . .                           | 175,847             | 800,000           | —               |
| Payment of debt obligations . . . . .                              | (244,009)           | (319,750)         | (53,500)        |
| Payment of financing lease obligation . . . . .                    | (777)               | (758)             | (425)           |
| Proceeds from sale-leaseback financing transaction . . . . .       | —                   | —                 | 58,729          |
| Payment on accounts receivable financing facility . . . . .        | —                   | (23,546)          | —               |
| Payment of deferred financing fees and debt discount . . . . .     | (5,961)             | (2,304)           | (8,239)         |
| Contribution from noncontrolling interest . . . . .                | 3,500               | —                 | 54,794          |
| Cash (used in) provided by financing activities . . . . .          | <u>\$ (277,469)</u> | <u>\$ 290,652</u> | <u>\$ (134)</u> |

*Proceeds from issuance of shares, net* — Represents cash proceeds related to the vesting of restricted share units, offset with expenses paid related to the issuance of shares.

*Repurchase of shares* — Represents the cash used to buy back the Company’s ordinary shares.

*Excess tax benefits from stock-based compensation plans* — Represents the cash that otherwise would have been paid for income taxes if increases in the value of equity instruments also had not been deductible in determining taxable income. Prospectively, all excess tax benefits from share-based payments will be reported as operating activities under new guidance, see Note 3 *Impact of Recently Issued Accounting Standards* of Notes to the Consolidated Financial Statements for disclosures related to the impact of recently adopted accounting standards.

*Repurchase of shares to satisfy employee minimum tax withholdings* — Represents the shares withheld and cancelled for cash, to satisfy the employee minimum tax withholding when restricted stock units vest.

*Proceeds from issuance of debt* — Represents the proceeds from new borrowings for our Term Loan Facilities upon the re-financing of our Credit Agreement in 2017, and “Term Loan A-1 Facility” of \$800 million, which was funded upon the closing of the Pace combination in 2016.

*Payment of debt obligation* — Represents the mandatory payment of the term loans under the senior secured credit facilities, payments to lenders exiting our credit facilities upon re-financing, as well as the repayment of debt assumed and settled in conjunction with the closing of the Pace combination in 2016 and ActiveVideo acquisition in 2015.

*Payment of financing lease obligation* — Represents the amortization related to the portion of the sale of building that did not qualify for sale-leaseback accounting.

*Proceeds from sale-leaseback financing transaction* — Represents the portion of the sale of building that did not qualify for sale-leaseback accounting. As such the sale was recorded as a financing transaction that will be amortized over the ten-year lease period.

*Repayment on accounts receivable financing facility* — As part of the Pace combination, we obtained an accounts receivable securitization program, which was terminated in 2017. This represents the repayment of the secured borrowings.

*Payment of deferred financing costs and debt discount* — Represents the financing costs in connection with the execution of our senior secured credit facility under the Credit Agreement. The costs have been deferred and will be recognized over the terms of the applicable credit facilities. It also represents amounts paid to lenders in the form of upfront fees, which have been treated as a reduction in the proceeds received by the ARRIS and are considered a component of the discount of the facilities under the Credit Agreement.

*Contribution from noncontrolling interest* — Represents the equity investment contributions by the non-controlling interest in a joint venture formed for the ActiveVideo acquisition.

#### *Excess Income Taxes Benefit Related to Equity Compensation*

During 2017, approximately \$2.6 million of U.S. federal tax benefits were obtained from tax deductions arising from equity-based compensation deductions, all of which resulted from 2017 lapses of restrictions on restricted stock awards. During 2016, approximately \$2.5 million of U.S. federal tax benefits were obtained from tax deductions arising from equity-based compensation deductions, all of which resulted from 2016 lapses of restrictions on restricted stock awards. During 2015, approximately \$20.2 million of U.S. federal tax benefits were obtained from tax deductions arising from equity-based compensation deductions, all of which resulted from 2015 exercises of non-qualified stock options and lapses of restrictions on restricted stock awards.

#### *Interest Rates*

As described above, all indebtedness under our senior secured credit facilities bears interest at variable rates based on LIBOR plus an applicable spread. We entered into interest rate swap arrangements to convert a notional amount of \$1,075.0 million of our variable rate debt based on one-month LIBOR to a fixed rate. The objective of these swaps is to manage the variability of cash flows in the interest payments related to the portion of the variable rate debt designated as being hedged.

#### *Foreign Currency*

A significant portion of our products are manufactured or assembled in Brazil, China, Mexico and Taiwan, and we have research and development centers outside the United States in Canada, China, France, India, Ireland, Israel, Singapore, Sweden, Taiwan and United Kingdom. Our sales into international markets have been and are expected in the future to be an important part of our business. These foreign operations are subject to the usual risks inherent in conducting business abroad, including risks with respect to currency exchange rates, economic and political destabilization, restrictive actions and taxation by foreign governments, nationalization, the laws and policies of the United States affecting trade, foreign investment and loans, and foreign tax laws.

We have certain international customers who are billed in their local currency and certain international operations that procure in U.S dollars. We also have certain predictable expenditures for international operations in local currency. Additionally, certain intercompany transactions are denominated in foreign currencies and subject to revaluation. As part of the Pace combination, we paid the former Pace shareholders 132.5 pence per share in cash consideration, which is approximately 434.3 million British pounds, in the aggregate. These contracts were settled upon the close of the Pace combination in January 2016. We use a strategy to economically hedge these transactions and enter into forward or currency option contracts based on a percentage of expected foreign currency revenues and expenses. The percentage can vary, based on the predictability of the exposures denominated in the foreign currency.



### *Financial Instruments*

In the ordinary course of business, we, from time to time, will enter into financing arrangements with customers. These financial arrangements include letters of credit, commitments to extend credit and guarantees of debt. These agreements could include the granting of extended payment terms that result in longer collection periods for accounts receivable and slower cash inflows from operations and/or could result in the deferral of revenue.

We execute letters of credit and bank guarantees in favor of certain landlords, customers and vendors to guarantee performance on contracts. Certain financial instruments require cash collateral, and these amounts are reported in Other Current Assets and Other Assets on the Consolidated Balance Sheets. As of December 31, 2017 and 2016, we had approximately \$1.5 million and \$1.6 million outstanding, respectively, of restricted cash.

### *Cash, Cash Equivalents, Short-Term Investments and Long-Term Investments*

Our cash and cash equivalents (which are highly-liquid investments with an original maturity of three months or less) are primarily held in demand deposit accounts and money market accounts. We hold short-term investments consisting of debt securities classified as available-for-sale, which are stated at estimated fair value. The debt securities consist primarily of commercial paper, certificates of deposits, short term corporate obligations and U.S. government agency financial instruments.

We hold cost method investments in private companies. These investments are recorded at \$10.1 million and \$6.8 million as of December 31, 2017 and 2016, respectively. See Note 6 *Investments* of Notes to the Consolidated Financial Statements for disclosures related to our investments.

We have two rabbi trusts that are used as funding vehicles for various deferred compensation plans that were available to certain current and former officers and key executives. We also have deferred retirement salary plans, which were limited to certain current or former officers of a business acquired in 2007. We hold investments to cover the liability.

ARRIS also funds its nonqualified defined benefit plan for certain executives in a rabbi trust.

### *Capital Expenditures*

Capital expenditures are made at a level designed to support the strategic and operating needs of the business. ARRIS's capital expenditures were \$78.1 million in 2017 as compared to \$66.8 million in 2016 and \$49.9 million in 2015. We had no significant commitments for capital expenditures at December 31, 2017. Management expects to invest approximately \$80.0 million to \$100.0 million in capital expenditures for 2018.

### *Deferred Income Taxes*

Deferred income tax assets represent amounts available to reduce income taxes payable on taxable income in future years. Such assets arise because of temporary differences between the financial reporting and tax bases of assets and liabilities, as well as from net operating loss and tax credit carryforwards. We evaluate the recoverability of these future tax deductions and credits by assessing the adequacy of future expected taxable income from all sources, including reversal of taxable temporary differences, forecasted operating earnings and available tax planning strategies. If we conclude that deferred tax assets are more-likely-than-not to not be realized, then we record a valuation allowance against those assets. We continually review the adequacy of the valuation allowances established against deferred tax assets. As part of that review, we regularly project taxable income based on book income projections by legal entity. Our ability to utilize our U.S. federal, state and foreign deferred tax assets is dependent upon our future taxable income by legal entity.

Net deferred tax assets of \$46.5 million (net of valuation allowances of \$91.7 million and deferred tax liabilities of \$333.0 million) as of December 31, 2017 decreased by \$28.7 million as compared to the prior year. Significant components of the change in net deferred tax asset balances include: 1) increase in the intangible deferred tax liability due to the impacts of the acquisition of Ruckus business; and 2) the benefit related to the remeasurement of certain deferred tax assets and liabilities due primarily to U.S. corporate tax reform.

*Defined Benefit Pension Plans*

ARRIS sponsors a qualified and a non-qualified non-contributory defined benefit pension plan that cover certain U.S. employees. As of January 1, 2000, we froze the qualified defined pension plan benefits for its participants.

No minimum funding contribution are required in 2017 under the our U.S. defined benefit plan. We made voluntary minimum funding contributions to our U.S. pension plan during 2016 and 2017. During 2017, \$1.4 million was contributed. During 2016, in an effort to reduce future premiums and administrative fees as well as to increase our funded status in connection with our U.S. pension obligation, we made a voluntary funding contribution of \$5.0 million.

In late 2017, we commenced the process of terminating our U.S. defined benefit pension plan. Ultimate plan termination is subject to regulatory approval and to prevailing market conditions and other considerations. In the event approvals are received and we proceed with effecting termination, settlement of the plan obligations is expected to occur in 2019. If the settlement occurs as expected in 2019, the plan’s deferred actuarial losses remaining in accumulated other comprehensive income (loss) at that time will be recognized as expense.

The U.S. pension plan benefit formulas generally provide for payments to retired employees based upon their length of service and compensation as defined in the plans. Our investment policy is to fund the qualified plan as required by the Employee Retirement Income Security Act of 1974 (“ERISA”) and to the extent that such contributions are tax deductible. For 2017, the plan assets were comprised of approximately 100% of cash equivalents. For 2016, the plan assets are comprised of approximately 30% equity securities, 2% debt securities, and 68% cash equivalents. For 2018, the plan’s current target allocations are 80% to 100% cash equivalents. Liabilities or amounts in excess of these funding levels are accrued and reported in the consolidated balance sheets. We have established a rabbi trust to fund the pension obligations of the Executive Chairman under his Supplemental Retirement Plan including the benefit under our non-qualified defined benefit plan. In addition, we have established a rabbi trust for certain executive officers and certain senior management personnel to fund the pension liability to those officers under the non-qualified plan.

The investment strategies of the plans place a high priority on benefit security. The plans invest conservatively so as not to expose assets to depreciation in adverse markets. The plans’ strategy also places a high priority on earning a rate of return greater than the annual inflation rate along with maintaining average market results. The plan has targeted asset diversification across different asset classes and markets to take advantage of economic environments and to also act as a risk minimizer by dampening the portfolio’s volatility.

The weighted-average actuarial assumptions used to determine the benefit obligations for the three years presented are set forth below:

|   | <u>2017</u> | <u>2016</u> | <u>2015</u> |
|---|-------------|-------------|-------------|
| Assumed discount rate for plan participants . . . . . | 3.45%       | 3.90%       | 4.15%       |

The weighted-average actuarial assumptions used to determine the net periodic benefit costs are set forth below:

|  | <u>2017</u> | <u>2016</u> | <u>2015</u> |
|--|-------------|-------------|-------------|
| Assumed discount rate plan participants . . . . .          | 3.9%        | 4.15%       | 3.75%       |
| Rate of compensation increase . . . . .                    | N/A         | N/A         | N/A         |
| Expected long-term rate of return on plan assets . . . . . | 5.00%       | 6.00%       | 6.00%       |

The expected long-term rate of return on assets is derived using the building block approach which includes assumptions for the long-term inflation rate, real return, and equity risk premiums.

No minimum funding contributions are required in 2018 for the U.S. pension plan.

ARRIS also provides a non-contributory defined benefit plan which cover employees in Taiwan. Any other benefit plans outside of the U.S. are not material to ARRIS either individually or in the aggregate.

Key assumptions used in the valuation of the Taiwan Plan are as follows:

|  | <u>2017</u> | <u>2016</u> | <u>2015</u> |
|--|-------------|-------------|-------------|
| Assumed discount rate for obligations . . . . .                | 1.10%       | 1.30%       | 1.70%       |
| Assumed discount rate for expense . . . . .                    | 1.30%       | 1.70%       | 1.90%       |
| Rate of compensation increase for indirect labor . . . . .     | 4.00%       | 4.00%       | 4.00%       |
| Rate of compensation increase for direct labor . . . . .       | 2.00%       | 2.00%       | 2.00%       |
| Expected long-term rate of return on plan assets (1) . . . . . | 1.40%       | 1.60%       | 2.00%       |

(1) Asset allocation is 100% in money market investments

The Company made funding contributions of \$1.2 million related to our non-U.S. pension plan in 2017. ARRIS estimates it will make funding contributions of \$1.2 million in 2018.

*Other Benefit Plans*

ARRIS has established defined contribution plans pursuant to the Internal Revenue Code Section 401(k) that cover all eligible U.S. employees. We contribute to these plans based upon the dollar amount of each participant's contribution. We made matching contributions to these plans of approximately \$16.5 million, \$16.4 million, and \$16.6 million in 2017, 2016 and 2015, respectively.

We have a deferred compensation plan that does not qualify under Section 401(k) of the Internal Revenue Code and is available to our key executives and certain other employees. Employee compensation deferrals and matching contributions are held in a rabbi trust. The total of net employee deferrals and matching contributions, which is reflected in other long-term liabilities, were \$5.7 million and \$4.2 million at December 31, 2017 and 2016, respectively. Total expenses included in continuing operations for the matching contributions were approximately \$0.3 million and \$0.2 million in 2017 and 2016, respectively.

We previously offered a deferred compensation arrangement that allowed certain employees to defer a portion of their earnings and defer the related income taxes. As of December 31, 2004, the plan was frozen and no further contributions are allowed. The deferred earnings are invested in a rabbi trust. The total of net employee deferral and matching contributions, which was reflected in other long-term liabilities, was \$3.1 million and \$3.0 million at December 31, 2017 and 2016, respectively.

We also have a deferred retirement salary plan, which was limited to certain current or former officers of a business acquired in 2007. The present value of the estimated future retirement benefit payments is being accrued over the estimated service period from the date of signed agreements with the employees. The accrued balance of this plan, the majority of which is included in other long-term liabilities, was \$1.5 million and \$1.6 million at December 31, 2017 and 2016, respectively. Total expense (income) included in continuing operations for the deferred retirement salary plan were approximately \$0.2 million and \$0.4 million for 2017 and 2016, respectively.

*Critical Accounting Policies and Estimates*

The accounting and financial reporting policies of ARRIS are in conformity with U.S. generally accepted accounting principles. The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Management has discussed the development and selection of the critical accounting estimates discussed below with the Audit Committee of the Board of Directors and the Audit Committee has reviewed the related disclosures.

*a) Revenue Recognition*

ARRIS generates revenue from varying activities, including the delivery of stand-alone equipment, custom design and installation services, and bundled sales arrangements inclusive of equipment, software and services.

The revenue from these activities is recognized in accordance with applicable accounting guidance and their related interpretations. Revenue is recognized when all the following criteria have been met:

- *When persuasive evidence of an arrangement exists.* Contracts and customer purchase orders are used to determine the existence of an arrangement. For professional services evidence that an agreement exists includes information documenting the scope of work to be performed, price, and customer acceptance provisions. These are contained in the signed Contract, Purchase Order, or other documentation that shows scope, price and customer acceptance provisions.
- *Delivery has occurred.* Shipping documents, proof of delivery and customer acceptance (when applicable) are used to verify delivery.
- *The fee is fixed or determinable.* Pricing is considered fixed or determinable at the execution of a customer arrangement, based on specific products and quantities to be delivered at specific prices. This determination includes a review of the payment terms associated with the transaction and whether the sales price is subject to refund or adjustment or future discounts.
- *Collectability is reasonably assured.* We assess the ability to collect from customers based on a number of factors that include information supplied by credit agencies, analyzing customer accounts, reviewing payment history and consulting bank references. Should a circumstance arise where a customer is deemed not creditworthy, all revenue related to the transaction will be deferred until such time that payment is received and all other criteria to allow us to recognize revenue have been met.

Revenue is deferred if any of the above revenue recognition criteria are not met as well as when certain circumstances exist for any of our products or services, including, but not limited to:

- When undelivered products or services that are essential to the functionality of the delivered product exist, revenue is deferred until such undelivered products or services are delivered.
- When required acceptance has not occurred.
- When trade-in rights are granted at the time of sale, that portion of the sale is deferred until the trade-in right is exercised or the right expires. In determining the deferral amount, management estimates the expected trade-in rate and future value of the product upon trade-in. These factors are periodically reviewed and updated by management, and the updates may result in either an increase or decrease in the deferral.

*Equipment* — We provide customers with equipment that can be placed within various stages of a broadband system that allows for the delivery of telephony, video and high-speed data as well as outside plant construction and maintenance equipment. For the Enterprise segment, equipment sales include products for wireless and wired connections to data networks. For equipment sales, revenue recognition is generally established when the products have been shipped, risk of loss has transferred, objective evidence exists that the product has been accepted, and no significant obligations remain relative to the transaction. Additionally, based on historical experience, ARRIS has established reliable estimates related to sales returns and other allowances for discounts. These estimates are recorded as a reduction to revenue at the time the revenue is initially recorded.

Our equipment deliverables typically include proprietary operating system software, which together deliver the essential functionality of our products. Therefore, our equipment deliverables are considered non-software elements and are not subject to industry-specific software revenue recognition guidance.

*Multiple Element Arrangements* — Certain customer transactions may include multiple deliverables based on the bundling of equipment, software and services. When a multiple element arrangement exists, the fee from the arrangement is allocated to the various deliverables, to the extent appropriate, so that the proper amount can be recognized as revenue as each element is delivered. Based on the composition of the arrangement, we analyze the provisions of the accounting guidance to determine the appropriate model to allocate revenue to the multiple elements. If the arrangement includes a combination of elements that fall within different applicable guidance,

ARRIS follows the provisions of the hierarchal literature to separate those elements and apply the relevant guidance to each.

To determine the estimated selling price in multiple-element arrangements, we first look to establish vendor specific objective evidence (“VSOE”) of the selling price using the prices charged for a deliverable when sold separately. If VSOE of the selling price cannot be established for a deliverable, we look to establish third-party evidence (“TPE”) of the selling price by evaluating the pricing of similar and interchangeable competitor products or services in stand-alone arrangements. However, as our products typically contain a significant element of proprietary technology and may offer substantially different features and functionality from our competitors, we have been unable to obtain comparable pricing information with respect to our competitors’ products. Therefore, we have not been able to obtain reliable evidence of TPE of the selling price. If neither VSOE nor TPE of the selling price can be established for a deliverable, we establish best estimate selling price (“BESP”) by reviewing historical transaction information and considering several other internal factors, including discounting and margin objectives. We regularly review estimated selling price of the product offerings and maintain internal controls over the establishment and updates of these estimates.

Our equipment deliverables typically include proprietary operating system software, which together deliver the essential functionality of our products. Therefore, our equipment deliverables are considered non-software elements and are not subject to industry-specific software revenue recognition guidance. For equipment, revenue recognition is generally established when the products have been shipped, risk of loss has transferred, objective evidence exists that the product has been accepted, and no significant obligations remain relative to the transaction.

For arrangements that fall within the software revenue recognition guidance, the fee is allocated to the various elements based on VSOE of fair value. If sufficient VSOE of fair value does not exist for the allocation of revenue to all the various elements in a multiple element arrangement, all revenue from the arrangement is deferred until the earlier of the point at which such sufficient VSOE of fair value is established or all elements within the arrangement are delivered. If VSOE of fair value exists for all undelivered elements, but does not exist for one or more delivered elements, the arrangement consideration is allocated to the various elements of the arrangement using the residual method of accounting. Under the residual method, the amount of the arrangement consideration allocated to the delivered elements is equal to the total arrangement consideration less the aggregate fair value of the undelivered elements. Using this method, any potential discount on the arrangement is allocated entirely to the delivered elements, which ensures that the amount of revenue recognized at any point in time is not overstated. Under the residual method, if VSOE of fair value exists for the undelivered element, generally PCS, the fair value of the undelivered element is deferred and recognized ratably over the term of the PCS contract, and the remaining portion of the arrangement is recognized as revenue upon delivery, which generally occurs upon delivery of the product or implementation of the system. Many of ARRIS’s products are sold in combination with customer support and maintenance services, which consist of software updates and product support. Software updates provide customers with rights to unspecified software updates that ARRIS chooses to develop and to maintenance releases and patches that we choose to release during the term of the support period. Product support services include telephone support, remote diagnostics, email and web access, access to on-site technical support personnel and repair or replacement of hardware in the event of damage or failure during the term of the support period. Maintenance and support service fees are recognized ratably under the straight-line method over the term of the contract, which is generally one year. We do not record receivables associated with maintenance revenues without a firm, non-cancelable order from the customer. VSOE of fair value is determined based on the price charged when the same element is sold separately and based on the prices at which our customers have renewed their customer support and maintenance. For elements that are not yet being sold separately, the price established by management, if it is probable that the price, once established, will not change before the separate introduction of the element into the marketplace is used to measure VSOE of fair value for that element.

*Software Sold Without Tangible Equipment* — While not significant, ARRIS does sell internally developed software as well as software developed by outside third parties that does not require significant production, mod-

ification or customization. For arrangements that contain only software and the related post-contract support, we recognize revenue in accordance with the applicable software revenue recognition guidance. If the arrangement includes multiple elements that are software only, then the software revenue recognition guidance is applied and the fee is allocated to the various elements based on VSOE of fair value. If sufficient VSOE of fair value does not exist for the allocation of revenue to all the various elements in a multiple element software arrangement, all revenue from the arrangement is deferred until the earlier of the point at which such sufficient VSOE of fair value is established or all elements within the arrangement are delivered. If VSOE of fair value exists for all undelivered elements, but does not exist for one or more delivered elements, the arrangement consideration is allocated to the various elements of the arrangement using the residual method of accounting. Under the residual method, the amount of the arrangement consideration allocated to the delivered elements is equal to the total arrangement consideration less the aggregate fair value of the undelivered elements. Under the residual method, if VSOE of fair value exists for the undelivered element, generally post contract support (“PCS”), the fair value of the undelivered element is deferred and recognized ratably over the term of the PCS contract, and the remaining portion of the arrangement is recognized as revenue upon delivery. If sufficient VSOE of fair value does not exist for PCS, revenue for the arrangement is recognized ratably over the term of support.

*Standalone Services* — Installation, training, and professional services are generally recognized as service revenue when performed or upon completion of the service when the final act is significant in relation to the overall service transaction. The key element for Professional Services in determining when service transaction revenue has been earned is determining the pattern of delivery or performance which determines the extent to which the earnings process is complete and the extent to which customers have received value from services provided. The delivery or performance conditions of our service transactions are typically evaluated under the proportional performance or completed performance model.

*Incentives* — Customer incentive programs that include consideration, primarily rebates/credits to be used against future product purchases and certain volume discounts, are recorded as a reduction of revenue when the shipment of the requisite equipment occurs.

*Value Added Resellers* — ARRIS typically employs the sell-in method of accounting for revenue when using a Value Added Reseller (“VAR”) as our channel to market. Because product returns are restricted, revenue under this method is generally recognized at the time of shipment to the VAR provided all criteria for recognition are met. There are occasions, based on facts and circumstances surrounding the VAR transaction, where ARRIS will employ the sell-through method of recognizing revenue and defer that revenue until payment occurs.

*Retail* — Some of our product is sold through retail channels, which may include provisions involving a right of return. Upon shipment of the product, we reduce revenue for an estimate of potential future product returns related to the current period product revenue. Management analyzes historical returns, channel inventory levels, and current economic trends related to our products when evaluating the adequacy of the allowance for sales returns. When applicable, revenue on shipments is reduced for estimated price protection and sales incentives that are deemed to be contra-revenue under the authoritative guidance for revenue recognition.

*b) Goodwill and Intangible Assets*

Intangible assets are classified into three categories: (1) goodwill (2) intangible assets with indefinite lives not subject to amortization and (3) intangible assets with definite lives subject to amortization. For intangible assets with definite lives, tests for impairment must be performed if conditions exist that indicate the carrying amount may not be recoverable. For intangible assets with indefinite lives and goodwill, tests for impairment must be performed at least annually or more frequently if events or circumstances indicate that assets might be impaired.

The following table presents the carrying amounts of intangible assets included in our consolidated balance sheet (in thousands):

| <u>December 31, 2017</u>                        | <u>Carrying Amount</u> | <u>Percentage of Total Assets</u> |
|---|------------------------|-----------------------------------|
| Goodwill . . . . .                              | \$2,278,512            | 30%                               |
| Indefinite-lived intangible assets . . . . .    | 54,100                 | —                                 |
| Definite-lived intangible assets, net . . . . . | <u>1,717,262</u>       | <u>23%</u>                        |
| Total . . . . .                                 | <u>\$4,049,874</u>     | <u>53%</u>                        |

Goodwill

We perform impairment tests of goodwill at our reporting unit level, which is at or one level below our operating segments. For purposes of impairment testing, our reporting units are based on our organizational structure, the financial information that is provided to and reviewed by segment management and aggregation criteria applicable to component businesses that are economically similar. Our operating segments are primarily based on the nature of the products and services offered, which is consistent with the way management runs our business. Our CPE and our Enterprise Networks operating segments are the same as the reporting unit. Our Network & Cloud operating segment is subdivided into three reporting units which are Network Infrastructure, Cloud and Services, and Cloud TV. Goodwill is assigned to the reporting unit or units that benefit from the synergies arising from each business combination.

We evaluate goodwill for impairment annually as of October 1st, or when an indicator of impairment exists. As of October 1, 2017, we early adopted Accounting Standards Update (“ASU”) 2017-04, Intangibles - Goodwill and Other (Topic 350) - Simplifying the Test for Goodwill Impairment (“ASU 2017-04”). ASU 2017-04 eliminated Step 2 of the goodwill impairment test in which an entity had to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities. The standard does not change the guidance on completing Step 1 of the goodwill impairment test. In accordance with the new standard, we compare the fair value of our reporting units with the carrying amount, including goodwill. We recognize an impairment charge for the amount by which the carrying amount exceeds a reporting unit’s fair value, as applicable.

Step 1 of the goodwill impairment test is to compare the fair value of a reporting unit to its carrying amount, including goodwill. We typically use a weighting of income approach using discounted cash flow models and a market approach to determine the fair value of a reporting unit. The assumptions used in these models are consistent with those we believe hypothetical marketplace participants would use. Under the income approach, we calculate the fair value of a reporting unit based on the present value of estimated future cash flows. The discounted cash flow analysis requires us to make various judgmental assumptions, including assumptions about future cash flows, growth rates and weighted average cost of capital (discount rate). The assumptions about future cash flows and growth rates are based on the current and long-term business plans of each reporting unit. Discount rate assumptions are based on an assessment of the risk inherent in the future cash flows of the respective reporting units. Under the market approach, we estimate the fair value based upon Market multiples of revenue and earnings derived from publicly traded companies with similar operating and investment characteristics as the reporting unit. The weighting of the fair value derived from the market approach ranges from 0% to 50% depending on the level of comparability of these publicly-traded companies to the reporting unit. When market comparable are not meaningful or not available, we may estimate the fair value of a reporting unit using only the income approach. We considered the relative strengths and weaknesses inherent in the valuation methodologies utilized in each approach and consulted with a third-party valuation specialist to assist in determining the appropriate weighting.

In order to assess the reasonableness of the calculated fair values of our reporting units, we also compare the sum of the reporting units’ fair values to our market capitalization and calculate an implied control premium (the excess of the sum of the reporting units’ fair values over the market capitalization). We evaluate the control premium by comparing it to the fair value estimates of the reporting unit. If the implied control premium is not

reasonable in light of the analysis, we will reevaluate the fair value estimates of the reporting unit by adjusting the discount rates and/or other assumptions.

We continue to have the option to perform the optional qualitative assessment of goodwill prior to completing the Step 1 process described above to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount.

Assumptions and estimates about future cash flows and discount rates are complex and often subjective. They are sensitive to changes in underlying assumptions and can be affected by a variety of factors, including external factors such as industry and economic trends, and internal factors such as changes in our business strategy and our internal forecasts. Our assessment includes significant estimates and assumptions including the timing and amount of future discounted cash flows, the discount rate and the perpetual growth rate used to calculate the terminal value.

Our discounted cash flow analysis included projected cash flows over a ten-year period. These forecasted cash flows took into consideration management's outlook for the future and were compared to historical performance to assess reasonableness. A discount rate was applied to the forecasted cash flows. The discount rate considered market and industry data, as well as the specific risk profile of the reporting unit. A terminal value was calculated, which estimates the value of annual cash flow to be received after the discrete forecast periods. The terminal value was based upon an exit value of annual cash flow after the discrete forecast period in year ten.

We assign corporate assets and liabilities to our reporting units to the extent that such assets or liabilities relate to the cash flows of the reporting unit and would be included in determining the reporting unit's fair value.

Examples of events or circumstances that could reasonably be expected to negatively affect the underlying key assumptions and ultimately impact the estimated fair value of our reporting units may include such items as the following:

- a prolonged decline in capital spending for constructing, rebuilding, maintaining, or upgrading broadband communications systems;
- rapid changes in technology occurring in the broadband communication markets which could lead to the entry of new competitors or increased competition from existing competitors that would adversely affect our sales and profitability;
- the concentration of business we receive from several key customers, the loss of which would have a material adverse effect on our business;
- continued consolidation of our customers base in the telecommunications industry could result in delays or reductions in purchases of our products and services, if the acquirer decided not to continue using us as a supplier;
- new products and markets currently under development may fail to realize anticipated benefits;
- changes in business strategies affecting future investments in businesses, products and technologies to complement or expand our business could result in adverse impacts to existing business and products;
- volatility in the capital (equity and debt) markets, resulting in a higher discount rate; and
- legal proceeding settlements and/or recoveries, and its effect on future cash flows.

As a result, there can be no assurance that the estimates and assumptions made for purposes of the annual goodwill impairment test will prove to be accurate predictions of the future. Although management believes the assumptions and estimates made are reasonable and appropriate, different assumptions and estimates could materially impact the reported financial results.



Impairment and Analysis

During the fourth quarter of 2017, we determined the carrying amount of our Cloud TV reporting unit associated with our ActiveVideo acquisition exceeded its fair value, and as such have recorded a partial goodwill impairment of \$51.2 million as of December 31, 2017, of which \$17.9 million is attributable to the non-controlling interest. The fair value of the reporting unit was impacted during the fourth quarter, by changes in management's expectations regarding the timing of attainment and growth for new customers, in correlation to the expense profile of the business. These changes resulted in a lower assessment of the future cash flows for the business. The impairment is included in impairment of goodwill and intangible assets on the Consolidated Statements of Income.

In addition, the Company will adopt new guidance on revenue recognition as of January 1, 2018. As a result of retrospective application of this guidance in our Cloud TV reporting unit, an additional goodwill impairment of approximately \$5 million to \$8 million is expected to be recognized in first quarter of 2018 resulting from the indirect effect of the change in accounting principle, effecting changes in the composition and carrying amount of the net assets.

We continue to evaluate the anticipated discounted cash flows from the Cloud TV reporting unit. If current long-term projections for this unit are not realized or materially decrease, we may be required to write-off all or a portion of the remaining \$30 million of goodwill and \$30 million of associated intangible assets.

Our CPE segment has significant goodwill as of October 1, 2017. The following table sets forth information regarding our CPE reporting unit as of October 1, 2017, including key assumptions (dollars in thousands):

|           | Key Assumptions  |                            | Fair Value Exceeds<br>Carrying Amount as of<br>October 1, 2017 | Goodwill as of October 1, 2017 |                            |
|-----------|------------------|----------------------------|--|--------------------------------|----------------------------|
|           | Discount<br>Rate | Terminal<br>Growth<br>Rate | Percentage   | Amount                         | Percent of<br>Total Assets |
| CPE ..... | 10%              | 0.5%                       | 34%  | \$1,391,582                    | 18%                        |

During 2017, our CPE gross margins declined due to higher memory pricing. Our projected cash flows reflect assumptions regarding modest improvement in the margin profile resulting from easing of these memory pricing pressures; and/or offsetting pricing increases over the next several years. Although management's assumptions are believed to be reasonable, there can be no assurance lower memory pricing and/or pricing increases, given the competitive landscape for some of our products, particularly in the CPE segment, will occur and could make it difficult to return to historical operating margin levels. Relatively small changes in certain key assumptions could result in this reporting unit failing Step 1 of the goodwill impairment test. Using the income approach, and holding other assumptions constant, the following table provides sensitivity analysis related to the impact of key assumptions on a standalone basis, on the resulting percentage change in fair value of our CPE reporting unit and corresponding percentage coverage under each scenario, as of October 1, 2017.

|  | Assuming hypothetical 10%<br>reduction in cash flows | Assuming hypothetical 1%<br>increase in discount rate | Assuming hypothetical 10%<br>reduction in cash flows and 1%<br>increase in discount rate |
|--|--|---|--|
| Percent reduction in fair value .....                        | (14%)  | (13%)   | (25%)  |
| Percent by which fair value<br>exceeds carrying amount ..... | 18%  | 19%   | 2%   |

There was no impairment of goodwill resulting from our annual impairment testing in 2016 and 2015.

Indefinite-lived intangible assets, net

We test intangible assets determined to have indefinite useful lives, including certain trademarks, in-process research and development and goodwill, for impairment annually, or more frequently if events or circumstances indicate that assets might be impaired. We use a variety of methodologies in conducting impairment assessments of indefinite-lived intangible assets, including, but not limited to, discounted cash flow models, which are based

on the assumptions we believe hypothetical marketplace participants would use. For indefinite-lived intangible assets, other than goodwill, if the carrying amount exceeds the fair value, an impairment charge is recognized in an amount equal to that excess. Acquired in-process research and development assets are initially recognized and measured at fair value and classified as indefinite-lived assets until the successful completion or abandonment of the associated research and development efforts. Accordingly, during the development period after acquisition, this asset is not amortized as charges to earnings. Completion of the associated research and development efforts would cause the indefinite-lived in-process research and development assets to become a definite-lived asset. As such, prior to commencing amortization the assets are tested for impairment.

We have the option to perform a qualitative assessment of indefinite-lived intangible assets, prior to completing the impairment test described above. The Company must assess whether it is more likely than not that the fair value of the intangible asset is less than its carrying amount. If the Company concludes that this is the case, it must perform the testing described above. Otherwise, the Company does not need to perform any further assessment.

Assumptions and estimates about future values and remaining useful lives of our acquired intangible assets are complex and subjective. They can be affected by a variety of factors, including external factors such as industry and economic trends and internal factors such as changes in our business strategy and our internal forecasts.

During the fourth quarter of 2017, the Company recorded a \$3.8 million partial impairment related to indefinite-lived tradenames acquired in our ActiveVideo acquisition and included as part of our Cloud TV reporting unit, of which \$1.3 million is attributable the noncontrolling interest. The impairment reflects changes resulting from the future projected cash flows of the business. The impairment is included in impairment of goodwill and intangible assets on the Consolidated Statements of Income.

In 2016, in-process research and development of \$2.2 million was written off related to projects for which development efforts were abandoned subsequent to the Pace combination. The write off related to the CPE segment and was included in Integration, acquisition, restructuring and other costs on the Consolidated Statements of Income.

There were no impairment charges related to indefinite-lived intangible assets in 2015.

Our ongoing consideration of all the factors described previously could result in additional impairment charges in the future, which could adversely affect our net income.

#### *Definite-lived intangible assets, net*

When facts and circumstances indicate that the carrying amount of definite-lived intangible assets may not be recoverable, management assesses the recoverability of the carrying amount by preparing estimates of cash flows. Examples of such circumstances include, but are not limited to, operating or cash flow losses from the use of such assets or changes in our intended uses of such assets. These estimated future cash flows are consistent with those we use in our internal planning. To test for recovery, we group assets (an "asset group") in a manner that represents the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. If the sum of the expected future cash flows (undiscounted and pre-tax based upon policy decision) is less than the carrying amount, we recognize an impairment loss. The impairment loss recognized is the amount by which the carrying amount of the asset or asset group exceeds the fair value. We use a variety of methodologies to determine the fair value of these assets, including discounted cash flow models, which are consistent with the assumptions we believe hypothetical marketplace participants would use.

There were no impairment charges related to definite-lived intangible assets during 2017, 2016 and 2015.

#### *c) Accounts Receivable and Allowance for Doubtful Accounts and Sales Returns*

Accounts receivable are stated at amounts owed by the customers, net of allowance for doubtful accounts, sales returns and allowances. We establish a reserve for doubtful accounts based upon our historical experience

and leading market indicators in collecting accounts receivable. A majority of our accounts receivable are from a few large cable system operators and telecommunication companies, either with investment rated debt outstanding or with substantial financial resources, and have favorable payment histories. If we were to have a collection problem with one of our major customers, it is possible the reserve will not be sufficient. We calculate our reserve for uncollectible accounts using a model that considers customer payment history, recent customer press releases, bankruptcy filings, if any, Dun & Bradstreet reports, and financial statement reviews. Our calculation is reviewed by management to assess whether there needs to be an adjustment to the reserve for uncollectible accounts. The reserve is established through a charge to the provision and represents amounts of current and past due customer receivable balances of which management deems a loss to be both probable and estimable. Accounts receivable are charged to the allowance when determined to be no longer collectible.

In the event that we are not able to predict changes in the financial condition of our customers, resulting in an unexpected problem with collectability of receivables and our actual bad debts differ from estimates, or we adjust estimates in future periods, our established allowances may be insufficient and we may be required to record additional allowances. Alternatively, if we provided more allowances than are ultimately required, we may reverse a portion of such provisions in future periods based on our actual collection experience. In the event we adjust our allowance estimates, it could materially affect our operating results and financial position.

We also establish a reserve for sales returns and allowances. The reserve is an estimate of the impact of potential returns based upon historic trends.

*d) Inventory Valuation*

Inventory is stated at the lower of cost or net realizable value. Net realizable value is defined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. Inventory cost is determined on a first-in, first-out basis. The cost of work-in-process and finished goods is comprised of material, labor and overhead.

We continuously evaluate future usage of product and where supply exceeds demand, we may establish a reserve. In reviewing inventory valuations, we also review for obsolete items. This evaluation requires us to estimate future usage, which, in an industry where rapid technological changes and significant variations in capital spending by system operators are prevalent, is difficult. As a result, to the extent that we have overestimated future usage of inventory, the value of that inventory on our financial statements may be overstated. When we believe that we have overestimated our future usage, we adjust for that overstatement through an increase in cost of sales in the period identified as the inventory is written down to its net realizable value. Inherent in our valuations are certain management judgments and estimates, including markdowns, shrinkage, manufacturing schedules, possible alternative uses and future sales forecasts, which can significantly impact ending inventory valuation and gross margin. The methodologies utilized by ARRIS in its application of the above methods are consistent for all periods presented.

We conduct physical inventory counts at all ARRIS locations, either annually or through ongoing cycle-counts, to confirm the existence of our inventory.

*e) Warranty*

We offer warranties of various lengths to our customers depending on product specifics and agreement terms with our customers. We provide, by a current charge to cost of sales in the period in which the related revenue is recognized, an estimate of future warranty obligations. The estimate is based upon historical experience. The embedded product base, failure rates, cost to repair and warranty periods are used as a basis for calculating the estimate. We also provide, via a charge to current cost of sales, estimated expected costs associated with non-recurring product failures. In the event of a significant non-recurring product failure, the amount of the reserve may not be sufficient. In the event that our historical experience of product failure rates and costs of correcting product failures change, our estimates relating to probable losses resulting from a significant non-recurring product failure changes, or to the extent that other non-recurring warranty claims occur in the future, we may be required to record additional warranty reserves. Alternatively, if we provided more reserves

than we needed, we may reverse a portion of such provisions in future periods. In the event we change our warranty reserve estimates, the resulting charge against future cost of sales or reversal of previously recorded charges may materially affect our operating results and financial position.

*f) Income Taxes*

Considerable judgment must be exercised in determining the proper amount of deferred income tax assets to record on the balance sheet and in concluding as to the correct amount of income tax liabilities relating to uncertain tax positions.

Deferred income tax assets must be evaluated quarterly and a valuation allowance should be established and maintained when it is more-likely-than-not that all or a portion of deferred income tax assets will not be realized. In determining the likelihood of realizing deferred income tax assets, management must consider all positive and negative evidence, such as the probability of future taxable income, tax planning, and the historical profitability of the entity in the jurisdiction where the asset has been recorded. Significant judgment must also be utilized by management in modeling the future taxable income of a legal entity in a particular jurisdiction. Whenever management subsequently concludes that it is more-likely-than-not that a deferred income tax asset will be realized, the valuation allowance must be partially or totally removed.

Uncertain tax positions occur, and a resulting income tax liability is recorded, when management concludes that an income tax position fails to achieve a more-likely-than-not recognition threshold. In evaluating whether an income tax position is uncertain, management must presume the income tax position will be examined by the relevant taxing authority that has full knowledge of all relevant information and management must consider the technical merits of an income tax position based on the statutes, legislative intent, regulations, rulings and case law specific to each income tax position. Uncertain income tax positions must be evaluated quarterly and, when they no longer fail to meet the more-likely-than-not recognition threshold, the related income tax liability must be derecognized.

On December 22, 2017, the 2017 Tax Cuts and Jobs Act (“the Act”) was enacted into law. The new legislation contains several key tax provisions that affected us, specifically for the year ended December 31, 2017, including a one-time mandatory transition tax on accumulated foreign earnings and a remeasurement of certain deferred tax assets and liabilities to reflect the reduced corporate income tax rate of 21% effective January 1, 2018. We are required to recognize the effect of the tax law changes in the period of enactment, such as determining the transition tax, remeasuring our U.S. deferred tax assets and liabilities as well as reassessing the realizability of our deferred tax assets. In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, *Income Tax Accounting Implications of the Tax Cuts and Jobs Act* (“SAB 118”), which allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. Since the Act was passed late in the fourth quarter of 2017, and ongoing guidance and accounting interpretation are expected over the next 12 months, we consider the accounting of the transition tax, deferred tax re-measurements, and other items to be incomplete due to the forthcoming guidance and our ongoing analysis of final year-end data and tax positions. We expect to complete our analysis within the measurement period in accordance with SAB 118.

### **Impact of Recently Issued Accounting Pronouncements**

Accounting pronouncements that have recently been issued but have not yet been implemented by us are described in Note 3 *Impact of Recently Issued Accounting Standards* of Notes to the Consolidated Financial Statements, which describes the potential impact that these pronouncements are expected to have on our financial position, results of operations and cash flows.

### **Forward-Looking Statements**

Certain information and statements contained in this Management’s Discussion and Analysis of Financial Condition and Results of Operations and other sections of this report, including statements using terms such as “may,” “expect,” “anticipate,” “intend,” “estimate,” “believe,” “plan,” “continue,” “could be,” or similar varia-

tions thereof, constitute forward-looking statements with respect to the financial condition, results of operations, and business of ARRIS, including statements that are based on current expectations, estimates, forecasts, and projections about the markets in which we operate and management's beliefs and assumptions regarding these markets. These and any other statements in this document that are not statements about historical facts also are "forward-looking statements." We caution investors that forward-looking statements made by us are not guarantees of future performance and that a variety of factors could cause our actual results to differ materially from the anticipated results or other expectations expressed in our forward-looking statements. Important factors that could cause results or events to differ from current expectations are described in the risk factors set forth in Item 1A, "Risk Factors." These factors are not intended to be an all-encompassing list of risks and uncertainties that may affect the operations, performance, development and results of our business, but instead are the risks that we currently perceive as potentially being material. In providing forward-looking statements, ARRIS expressly disclaims any obligation to update publicly or otherwise these statements, whether as a result of new information, future events or otherwise except to the extent required by law.

#### **Item 7A. *Quantitative and Qualitative Disclosures About Market Risk***

We are exposed to various market risks, including interest rates and foreign currency rates. The following discussion of our risk-management activities includes "forward-looking statements" that involve risks and uncertainties. Actual results could differ materially from those projected in the forward-looking statements.

A significant portion of our products are manufactured or assembled in Brazil, China, Mexico and Taiwan, and we have research and development centers outside the United States in Canada, China, France, India, Ireland, Israel, Singapore, Sweden, Taiwan and United Kingdom. Our sales into international markets have been and are expected in the future to be an important part of our business. These foreign operations are subject to the usual risks inherent in conducting business abroad, including risks with respect to currency exchange rates, economic and political destabilization, restrictive actions and taxation by foreign governments, nationalization, the laws and policies of the U.S. affecting trade, foreign investment and loans, and foreign tax laws.

We have certain international customers who are billed in their local currency, and we have certain predictable expenditures for international operations in local currency. Additionally, certain intercompany transactions are denominated in foreign currencies and subject to revaluation. Changes in the monetary exchange rates may adversely affect our results of operations and financial condition. To manage the volatility relating to these typical business exposures, we use a hedging strategy and may enter into various derivative transactions, when appropriate. We do not hold or issue derivative instruments for trading or other speculative purposes. The euro is the predominant currency of the customers who are billed in their local currency. Additionally, we face certain other working capital exposures related to both the euro and the British pound, and we are also subject to the revaluation of one of our long-term pension obligations denominated in the New Taiwan dollar. Taking into account the effects of foreign currency fluctuations of the euro, the British pound, the New Taiwan dollar, the Brazilian real, the South African rand, the Australian dollar and the Canadian dollar versus the U.S. dollar, a hypothetical 10% appreciation or depreciation in the value of the U.S. dollar against these foreign currencies from the prevailing market rates would result in a corresponding decrease or increase, respectively, of \$14.0 million in the underlying exposures as of December 31, 2017.

All indebtedness under our senior secured credit facilities bears interest at variable rates based on LIBOR plus an applicable spread. We entered into interest rate swap arrangements to convert a notional amount of \$1,075.0 million of our variable rate debt based on one-month LIBOR to a fixed rate. This objective of these swaps is to manage the variability of cash flows in the interest payments related to the portion of the variable rate debt designated as being hedged.

#### **Item 8. *Consolidated Financial Statements and Supplementary Data***

The report of our independent registered public accounting firm and consolidated financial statements and notes thereto for the Company are included in this Report and are listed in the Index to Consolidated Financial Statements.

**Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

Not Applicable

**Item 9A. *Controls and Procedures***

(a) *Evaluation of Disclosure Controls and Procedures.* Management, with the participation and supervision of our principal executive officer and principal financial officer evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 as of the end of the period covered by this report (the “Evaluation Date”). Based on that evaluation, our principal executive officer and principal financial officer concluded that, as of the Evaluation Date, our disclosure controls and procedures were effective as contemplated by the Act.

(b) *Changes in Internal Control over Financial Reporting.* Management, with the participation and supervision of our principal executive officer and principal financial officer evaluated the changes in our internal control over financial reporting that occurred during the most recent fiscal quarter. Based on that evaluation, management concluded that, there had been no change in our internal control over financial reporting during the most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. On December 1, 2017, we completed the acquisition of Ruckus Networks. As permitted by the Securities and Exchange Commission, management has elected to exclude the Ruckus Networks business from its assessment of internal controls over financial reporting as of December 31, 2017. Total assets of the Ruckus Networks business represented approximately 3% (excluding goodwill and intangible assets) of our consolidated total assets as of December 31, 2017, and net sales related to Ruckus Networks business represented less than 1% of our consolidated net sales for the fiscal year ended December 31, 2017.

## MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

ARRIS International plc's management is responsible for establishing and maintaining an adequate system of internal control over financial reporting as required by the Sarbanes-Oxley Act of 2002 and as defined in Exchange Act Rule 13a-15(f). A control system can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

Under management's supervision, an evaluation of the design and effectiveness of ARRIS International plc's internal control over financial reporting was conducted based on the framework in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (COSO). Based on this evaluation, management concluded that ARRIS International plc's internal control over financial reporting was effective as of December 31, 2017.

On December 1, 2017, we completed the acquisition of Brocade Communications Systems Inc.'s Ruckus Wireless® and ICX® Switch business ("Ruckus Networks") from Broadcom Limited. See Note 4 *Business Acquisitions* of Notes to the Consolidated Financial Statements for additional information. Total assets of the Ruckus Networks business represented approximately 3% (excluding goodwill and intangible assets) of our consolidated total assets as of December 31, 2017, and net sales related to Ruckus Networks business represented less than 1% of our consolidated net sales for the fiscal year ended December 31, 2017. As permitted by the Securities and Exchange Commission, management has elected to exclude the Ruckus Networks business from its assessment of internal controls over financial reporting as of December 31, 2017. The effectiveness of ARRIS International plc's internal control over financial reporting as of December 31, 2017 has been audited by Ernst & Young LLP, an independent registered public accounting firm retained as auditors of ARRIS International plc's financial statement, as stated in their report which is included herein.

/s/ BRUCE MCCLELLAND

---

Bruce W. McClelland  
Chief Executive Officer

/s/ DAVID B. POTTS

---

David B. Potts  
Executive Vice President, Chief Financial Officer  
and Chief Accounting Officer

March 1, 2018

## **Report of Independent Registered Public Accounting Firm**

To the Stockholders and the Board of Directors of ARRIS International plc

### **Opinion on Internal Control over Financial Reporting**

We have audited ARRIS International plc's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, ARRIS International plc (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

As indicated in the accompanying Management's Report on Internal Control Over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Ruckus Wireless and ICX Switch Business ("Ruckus Networks"), which are included in the 2017 consolidated financial statements of the Company and constituted approximately 3% of total assets as of December 31, 2017 and less than 1% of net sales for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of the Ruckus Networks.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, cash flows and stockholders' equity for each of the three years in the period ended December 31, 2017, and the related notes of the Company and our report dated March 1, 2018 expressed an unqualified opinion thereon.

### **Basis for Opinion**

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

### **Definition and Limitations of Internal Control Over Financial Reporting**

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.



Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Atlanta, Georgia  
March 1, 2018

## INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

|   | <u>Page</u> |
|---|-------------|
| Report of Independent Registered Public Accounting Firm .....   | 89          |
| Consolidated Balance Sheets at December 31, 2017 and 2016 .....   | 90          |
| Consolidated Statements of Income for the years ended December 31, 2017, 2016 and 2015 .....                  | 91          |
| Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, 2016 and<br>2015 ..... | 92          |
| Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015 .....              | 93          |
| Consolidated Statements of Stockholders' Equity for the years ended December 31, 2017, 2016 and<br>2015 ..... | 95          |
| Notes to the Consolidated Financial Statements .....  | 96          |

## **Report of Independent Registered Public Accounting Firm**

To the Stockholders and the Board of Directors of ARRIS International plc

### **Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of ARRIS International plc as of December 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, cash flows and stockholders' equity for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 1, 2018 expressed an unqualified opinion thereon.

### **Basis for opinion**

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1992.

Atlanta, Georgia  
March 1, 2018

**ARRIS INTERNATIONAL PLC**  
**CONSOLIDATED BALANCE SHEETS**

|  | <b>December 31,</b>                                   |             |
|--|---|-------------|
|  | <b>2017</b>   | <b>2016</b> |
|  | <b>(in thousands except share and per share data)</b> |             |
| <b>ASSETS</b>  |   |             |
| Current assets:  |   |             |
| Cash and cash equivalents  | \$ 487,573  | \$ 980,123  |
| Short-term investments, at fair value  | 23,874  | 115,553     |
| Total cash, cash equivalents and short-term investments  | 511,447   | 1,095,676   |
| Accounts receivable (net of allowances for doubtful accounts of \$10,230 in 2017 and \$15,253 in 2016)                                       | 1,218,089   | 1,359,430   |
| Other receivables  | 157,845   | 73,193      |
| Inventories (net of reserves of \$69,459 in 2017 and \$72,596 in 2016)   | 825,211   | 551,541     |
| Prepaid income taxes   | 28,351  | 51,476      |
| Prepays  | 26,644  | 21,163      |
| Other current assets   | 145,953   | 127,593     |
| Total current assets   | 2,913,540   | 3,280,072   |
| Property, plant and equipment (net of accumulated depreciation of \$367,954 in 2017 and \$319,473 in 2016)                                   | 372,467   | 353,377     |
| Goodwill   | 2,278,512   | 2,016,169   |
| Intangible assets (net of accumulated amortization of \$1,599,573 in 2017 and \$1,254,360 in 2016)   | 1,771,362   | 1,677,178   |
| Investments  | 71,082  | 72,932      |
| Deferred income taxes  | 115,436   | 298,757     |
| Other assets   | 101,858   | 59,877      |
| Total assets   | \$7,624,257   | \$7,758,362 |
| <b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>  |   |             |
| Current liabilities:   |   |             |
| Accounts payable   | \$1,206,656   | \$1,048,904 |
| Accrued compensation, benefits and related taxes   | 155,966   | 139,794     |
| Accrued warranty   | 44,507  | 49,618      |
| Deferred revenue   | 115,224   | 132,128     |
| Current portion of long-term debt and financing lease obligation   | 83,559  | 82,734      |
| Income taxes payable   | 6,244   | 23,133      |
| Other accrued liabilities  | 321,113   | 357,823     |
| Total current liabilities  | 1,933,269   | 1,834,134   |
| Long-term debt and financing lease obligation, net of current portion  | 2,116,244   | 2,180,009   |
| Accrued pension  | 42,637  | 52,652      |
| Noncurrent income taxes  | 144,665   | 123,344     |
| Deferred income taxes  | 68,888  | 223,529     |
| Other noncurrent liabilities   | 134,520   | 117,957     |
| Total liabilities  | 4,440,223   | 4,531,625   |
| Stockholders' equity:  |   |             |
| Ordinary shares, nominal value £0.01 per share, 185.2 million and 190.1 million shares issued and outstanding in 2017 and 2016, respectively | 2,768   | 2,831       |
| Capital in excess of par value   | 3,387,128   | 3,314,707   |
| Accumulated deficit  | (225,881)   | (132,013)   |
| Accumulated other comprehensive income   | 4,552   | 3,291       |
| Total ARRIS International plc stockholders' equity   | 3,168,567   | 3,188,816   |
| Stockholders' equity attributable to noncontrolling interest   | 15,467  | 37,921      |
| Total stockholders' equity   | 3,184,034   | 3,226,737   |
| Total liabilities and stockholders' equity   | \$7,624,257   | \$7,758,362 |

See accompanying notes to the consolidated financial statements.

**ARRIS INTERNATIONAL PLC**  
**CONSOLIDATED STATEMENTS OF INCOME**

|   | For the Years Ended December 31,      |                  |                  |
|---|---------------------------------------|------------------|------------------|
|   | 2017                                  | 2016             | 2015             |
|   | (in thousands, except per share data) |                  |                  |
| Net sales   | \$6,614,392                           | \$6,829,118      | \$4,798,332      |
| Cost of sales   | 4,948,153                             | 5,121,501        | 3,379,409        |
| Gross margin  | 1,666,239                             | 1,707,617        | 1,418,923        |
| Operating expenses:                                     |                                       |                  |                  |
| Selling, general, and administrative expenses           | 475,369                               | 454,190          | 417,085          |
| Research and development expenses                       | 539,094                               | 584,909          | 534,168          |
| Amortization of intangible assets                       | 375,407                               | 397,464          | 227,440          |
| Impairment of goodwill and intangible assets            | 55,000                                | 2,200            | —                |
| Integration, acquisition, restructuring and other costs | 98,357                                | 158,137          | 29,277           |
| Total operating expenses                                | 1,543,227                             | 1,596,900        | 1,207,970        |
| Operating income  | 123,012                               | 110,717          | 210,953          |
| Other expense (income):                                 |                                       |                  |                  |
| Interest expense  | 87,088                                | 79,817           | 70,936           |
| Loss on investments                                     | 11,066                                | 21,194           | 6,220            |
| Loss (gain) on foreign currency                         | 9,757                                 | (13,982)         | 20,761           |
| Interest income   | (7,975)                               | (4,395)          | (2,379)          |
| Other expense (income), net                             | 1,873                                 | 3,991            | 8,362            |
| Income before income taxes                              | 21,203                                | 24,092           | 107,053          |
| Income tax (benefit) expense                            | (44,921)                              | 15,131           | 22,594           |
| Consolidated net income                                 | 66,124                                | 8,961            | 84,459           |
| Net loss attributable to noncontrolling interest        | (25,903)                              | (9,139)          | (7,722)          |
| Net income attributable to ARRIS International plc.     | <u>\$ 92,027</u>                      | <u>\$ 18,100</u> | <u>\$ 92,181</u> |
| Net income per ordinary share <sup>(1)</sup> :          |                                       |                  |                  |
| Basic   | <u>\$ 0.49</u>                        | <u>\$ 0.09</u>   | <u>\$ 0.63</u>   |
| Diluted   | <u>\$ 0.49</u>                        | <u>\$ 0.09</u>   | <u>\$ 0.62</u>   |
| Weighted average ordinary shares:                       |                                       |                  |                  |
| Basic   | <u>187,133</u>                        | <u>190,701</u>   | <u>146,388</u>   |
| Diluted   | <u>189,616</u>                        | <u>192,185</u>   | <u>149,359</u>   |

(1) Calculated based on net income attributable to shareowners of ARRIS International plc.

See accompanying notes to the consolidated financial statements.

**ARRIS INTERNATIONAL PLC**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

|   | <b>For the Years Ended December 31,</b> |                 |                 |
|---|---|-----------------|-----------------|
|   | <u>2017</u>                             | <u>2016</u>     | <u>2015</u>     |
|   | (in thousands)                          |                 |                 |
| Consolidated net income . . . . .   | \$ 66,124                               | \$ 8,961        | \$84,459        |
| Available-for-sale securities:  |   |                 |                 |
| Unrealized gain (loss) on available-for-sale securities, net of tax of \$(288),<br>\$6 and \$37 in 2017, 2016 and 2015, respectively . . . . .          | 471                                     | (11)            | (64)            |
| Reclassification adjustments recognized in net income, net of tax of \$(33),<br>\$(9) and \$(100) in 2017, 2016 and 2015, respectively . . . . .        | <u>54</u>                               | <u>15</u>       | <u>172</u>      |
| Net change in available-for-sale . . . . .  | <u>525</u>                              | <u>4</u>        | <u>108</u>      |
| Derivative instruments:   |   |                 |                 |
| Unrealized gain (loss) on derivative instruments, net of tax of \$(1,797),<br>\$(472) and \$4,936 in 2017, 2016 and 2015, respectively . . . . .        | 3,790                                   | 1,631           | (8,319)         |
| Reclassification adjustments recognized in net income, net of tax of \$(535),<br>\$(1,691) and \$(2,791) in 2017, 2016 and 2015, respectively . . . . . | <u>1,128</u>                            | <u>5,821</u>    | <u>4,704</u>    |
| Net change in derivative instruments . . . . .  | <u>4,918</u>                            | <u>7,452</u>    | <u>(3,615)</u>  |
| Pension obligations:  |   |                 |                 |
| Unrealized (loss) gain on pension obligations, net of tax of \$1,391, \$1,425<br>and \$(1,082) in 2017, 2016 and 2015, respectively . . . . .           | (2,487)                                 | (2,934)         | 2,044           |
| Reclassification adjustments recognized in net income, net of tax of \$(170),<br>\$(155) and \$(498) in 2017, 2016 and 2015, respectively . . . . .     | <u>304</u>                              | <u>319</u>      | <u>942</u>      |
| Net change in pension obligations . . . . .   | <u>(2,183)</u>                          | <u>(2,615)</u>  | <u>2,986</u>    |
| Cumulative translation adjustments . . . . .  | <u>(2,050)</u>                          | <u>11,096</u>   | <u>(1,078)</u>  |
| Other comprehensive income (loss), net of tax . . . . .   | <u>1,210</u>                            | <u>15,937</u>   | <u>(1,599)</u>  |
| Comprehensive income . . . . .  | <u>67,334</u>                           | <u>24,898</u>   | <u>82,860</u>   |
| Comprehensive loss attributable to noncontrolling interest . . . . .  | <u>(25,954)</u>                         | <u>(9,127)</u>  | <u>(7,747)</u>  |
| Comprehensive income attributable to ARRIS International plc . . . . .  | <u>\$ 93,288</u>                        | <u>\$34,025</u> | <u>\$90,607</u> |

See accompanying notes to the consolidated financial statements.

**ARRIS INTERNATIONAL PLC**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

|  | Years Ended December 31, |           |           |
|--|--------------------------|-----------|-----------|
|  | 2017                     | 2016      | 2015      |
|  | (in thousands)           |           |           |
| Operating activities:  |                          |           |           |
| Consolidated net income  | \$ 66,124                | \$ 8,961  | \$ 84,459 |
| Depreciation   | 88,195                   | 90,577    | 71,780    |
| Amortization of acquired intangible assets   | 382,416                  | 404,475   | 231,590   |
| Amortization of deferred financing fees and debt discount                                    | 7,960                    | 7,705     | 9,646     |
| Deferred income taxes  | (74,465)                 | (148,418) | 5,418     |
| Foreign currency remeasurement of deferred taxes   | 9,360                    | (16,356)  | —         |
| Stock-based compensation expense   | 81,557                   | 60,049    | 64,218    |
| Impairment of goodwill and intangible assets   | 55,000                   | 2,200     | —         |
| Provision for non-cash warrants  | —                        | 30,159    | —         |
| Provision (recovery) for doubtful accounts   | (566)                    | 1,386     | 2,997     |
| Loss on disposal of property, plant & equipment and other                                    | 7,063                    | 8,706     | 7,776     |
| Loss on investments and other  | 11,066                   | 21,194    | 6,220     |
| Excess income tax benefits from stock-based compensation plans                               | —                        | (20,085)  | (3,997)   |
| Changes in operating assets and liabilities, net of effect of acquisitions and dispositions: |                          |           |           |
| Accounts receivable  | 175,930                  | (258,677) | (55,132)  |
| Other receivables  | (84,652)                 | (31,517)  | (6,017)   |
| Inventories  | (224,582)                | 282,644   | (6,685)   |
| Accounts payable and accrued liabilities   | 49,988                   | (178,086) | 15,065    |
| Prepays and other, net   | (16,557)                 | 97,578    | (83,466)  |
| Net cash provided by operating activities  | 533,837                  | 362,495   | 343,872   |
| Investing activities:  |                          |           |           |
| Purchases of investments   | (68,493)                 | (141,543) | (48,566)  |
| Sales of investments   | 165,301                  | 25,931    | 161,824   |
| Purchases of property, plant and equipment   | (78,072)                 | (66,760)  | (49,890)  |
| Purchases of intangible assets   | (6,422)                  | (5,526)   | (39,340)  |
| Proceeds from sale-leaseback transaction   | —                        | —         | 24,960    |
| Acquisition, net of cash acquired  | (760,802)                | (340,118) | (97,905)  |
| Other, net   | 826                      | 3,507     | 2,971     |
| Net cash used in investing activities  | (747,662)                | (524,509) | (45,946)  |

See accompanying notes to the consolidated financial statements.

**ARRIS INTERNATIONAL PLC**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)**

|   | Years Ended December 31, |                   |                  |
|---|--------------------------|-------------------|------------------|
|   | 2017                     | 2016              | 2015             |
|   | (in thousands)           |                   |                  |
| Financing activities:   |                          |                   |                  |
| Proceeds from issuance of shares, net . . . . .                                       | \$ 17,469                | \$ 12,885         | \$ 16,189        |
| Repurchase of shares . . . . .  | (196,965)                | (178,035)         | (24,999)         |
| Excess income tax benefits from stock-based compensation plans . . . .                | —                        | 20,085            | 3,997            |
| Repurchase of shares to satisfy employee minimum tax<br>withholdings . . . . .        | (26,573)                 | (17,925)          | (46,680)         |
| Proceeds from issuance of debt . . . . .  | 175,847                  | 800,000           | —                |
| Payment of debt obligations . . . . .   | (244,009)                | (319,750)         | (53,500)         |
| Payment of financing lease obligation . . . . .                                       | (777)                    | (758)             | (425)            |
| Proceeds from sale-leaseback financing transaction . . . . .                          | —                        | —                 | 58,729           |
| Payment for account receivable financing facility . . . . .                           | —                        | (23,546)          | —                |
| Payment for deferred financing fees and debt discount . . . . .                       | (5,961)                  | (2,304)           | (8,239)          |
| Contribution from noncontrolling interest . . . . .                                   | 3,500                    | —                 | 54,794           |
| Net cash (used in) provided by financing activities . . . . .                         | (277,469)                | 290,652           | (134)            |
| Effect of exchange rate changes on cash and cash equivalents . . . . .                | (1,256)                  | (12,097)          | —                |
| Net (decrease) increase in cash and cash equivalents . . . . .                        | (492,550)                | 116,541           | 297,792          |
| Cash and cash equivalents at beginning of year . . . . .                              | 980,123                  | 863,582           | 565,790          |
| Cash and cash equivalents at end of year . . . . .                                    | <u>\$ 487,573</u>        | <u>\$ 980,123</u> | <u>\$863,582</u> |
| Supplemental cash flow information:   |                          |                   |                  |
| Interest paid during the year . . . . .   | <u>\$ 80,791</u>         | <u>\$ 71,127</u>  | <u>\$ 60,798</u> |
| Income taxes paid during the year . . . . .   | <u>\$ 34,053</u>         | <u>\$ 111,524</u> | <u>\$ 39,065</u> |
| Non-cash investing and financing activities: debt assumed in<br>acquisition . . . . . | <u>\$ —</u>              | <u>\$ 263,795</u> | <u>\$ 15,000</u> |

See accompanying notes to the consolidated financial statements.



**ARRIS INTERNATIONAL PLC**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
(in thousands)

|  | Common Stock | Ordinary Shares | Capital in Excess of Par Value | Treasury Stock | Retained Earnings (Deficit) | Accumulated Other Comprehensive Income (Loss) | Total ARRIS International plc stockholders' equity | Non-controlling Interest | Total stockholders' equity |
|--|--------------|-----------------|--------------------------------|----------------|-----------------------------|---|--|--------------------------|----------------------------|
| Balance, January 1, 2015                                       | \$ 1,796     | \$ —            | \$1,739,700                    | \$(306,330)    | \$ 266,642                  | \$(11,047)                                    | \$1,690,761  | \$ —                     | \$1,690,761                |
| Net income (loss)  | —            | —               | —                              | —              | 92,181                      | —   | 92,181   | (7,722)                  | 84,459                     |
| Other comprehensive income (loss), net of tax                  | —            | —               | —                              | —              | —                           | (1,599)                                       | (1,599)  | (25)                     | (1,624)                    |
| Contribution from noncontrolling interest                      | —            | —               | —                              | —              | —                           | —   | —  | 54,794                   | 54,794                     |
| Compensation under stock award plans                           | —            | —               | 64,218                         | —              | —                           | —   | 64,218   | —                        | 64,218                     |
| Issuance of common stock and other, net                        | (6)          | —               | (30,572)                       | —              | —                           | —   | (30,578)   | —                        | (30,578)                   |
| Repurchase of common stock, net of issuances                   | —            | —               | —                              | (24,999)       | —                           | —   | (24,999)   | —                        | (24,999)                   |
| Income tax benefit related to exercise of stock options        | —            | —               | 3,930                          | —              | —                           | —   | 3,930  | —                        | 3,930                      |
| Balance, December 31, 2015                                     | \$ 1,790     | \$ —            | \$1,777,276                    | \$(331,329)    | \$ 358,823                  | \$(12,646)                                    | \$1,793,914  | \$ 47,047                | \$1,840,961                |
| Net income (loss)  | —            | —               | —                              | —              | 18,100                      | —   | 18,100   | (9,139)                  | 8,961                      |
| Other comprehensive income, net of tax                         | —            | —               | —                              | —              | —                           | 15,937  | 15,937   | 13                       | 15,950                     |
| Compensation under stock award plans                           | —            | —               | 60,049                         | —              | —                           | —   | 60,049   | —                        | 60,049                     |
| Effect of combination on ARRIS Group                           | (1,439)      | 2,173           | (734)                          | —              | —                           | —   | —  | —                        | —                          |
| Cancellation of treasury stock                                 | (351)        | —               | —                              | 331,329        | (330,978)                   | —   | —  | —                        | —                          |
| Issuance of ordinary shares for Pace combination               | —            | 703             | 1,433,987                      | —              | —                           | —   | 1,434,690  | —                        | 1,434,690                  |
| Issuance of ordinary shares and other, net                     | —            | 32              | (2,242)                        | —              | —                           | —   | (2,210)  | —                        | (2,210)                    |
| Provision for warrants   | —            | —               | 30,159                         | —              | —                           | —   | 30,159   | —                        | 30,159                     |
| Repurchase of ordinary shares, net                             | —            | (77)            | —                              | —              | (177,958)                   | —   | (178,035)  | —                        | (178,035)                  |
| Income tax effect related to vesting of restricted share units | —            | —               | 18,929                         | —              | —                           | —   | 18,929   | —                        | 18,929                     |
| Other  | —            | —               | (2,717)                        | —              | —                           | —   | (2,717)  | —                        | (2,717)                    |
| Balance, December 31, 2016                                     | \$ —         | \$2,831         | \$3,314,707                    | \$ —           | \$(132,013)                 | \$ 3,291                                      | \$3,188,816  | \$ 37,921                | \$3,226,737                |
| Net income (loss)  | —            | —               | —                              | —              | 92,027                      | —   | 92,027   | (25,903)                 | 66,124                     |
| Other comprehensive income, net of tax                         | —            | —               | —                              | —              | —                           | 1,261   | 1,261  | (51)                     | 1,210                      |
| Compensation under stock award plans                           | —            | —               | 81,557                         | —              | —                           | —   | 81,557   | —                        | 81,557                     |
| Contribution from noncontrolling interest                      | —            | —               | —                              | —              | —                           | —   | —  | 3,500                    | 3,500                      |
| Issuance of ordinary shares and other, net                     | —            | 33              | (9,136)                        | —              | —                           | —   | (9,103)  | —                        | (9,103)                    |
| Repurchase of ordinary shares, net                             | —            | (96)            | —                              | —              | (196,869)                   | —   | (196,965)  | —                        | (196,965)                  |
| Cumulative effect adjustment to opening balance <sup>(1)</sup> | —            | —               | —                              | —              | 10,974                      | —   | 10,974   | —                        | 10,974                     |
| Balance, December 31, 2017                                     | \$ —         | \$2,768         | \$3,387,128                    | \$ —           | \$(225,881)                 | \$ 4,552                                      | \$3,168,567  | \$ 15,467                | \$3,184,034                |

(1) Cumulative adjustment related to the adoption of accounting standards, see Note 3 *Impact of Recently Adopted Accounting Standards* of Notes to the Consolidated Financial Statements for additional information.

See accompanying notes to the consolidated financial statements.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

### Note 1. Organization and Basis of Presentation

On January 4, 2016, ARRIS Group, Inc. (“ARRIS Group”) completed its combination with Pace plc, a company incorporated in England and Wales (“Pace”). In connection with the Pace combination, (i) ARRIS International plc (the “Registrant”), a company incorporated in England and Wales, acquired all of the outstanding ordinary shares of Pace and (ii) a wholly-owned subsidiary of the Registrant was merged with and into ARRIS Group (the “Merger”), with ARRIS Group surviving the Merger as an indirect wholly-owned subsidiary of the Registrant. Under the terms of the Pace combination, (a) Pace shareholders received 132.5 pence in cash and 0.1455 ordinary shares of the Registrant for each Pace Share they held, and (b) ARRIS Group stockholders received one ordinary share of the Registrant for each share of ARRIS Group common stock they held. Following the Pace combination, ARRIS Group became an indirect wholly-owned subsidiary of the Registrant and Pace became a direct wholly-owned subsidiary of the Registrant. The ordinary shares of the Registrant trade on the NASDAQ under the symbol “ARRS.”

This Annual Report on Form 10-K is being filed by the Registrant on behalf of, and as successor, to ARRIS Group. The Registrant is deemed to be the successor to ARRIS Group pursuant to Rule 12g-3(a) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the ordinary shares of the Registrant are deemed to be registered under Section 12(b) of the Exchange Act.

ARRIS International plc (together with its consolidated subsidiaries and consolidated venture, except as the context otherwise indicates, “ARRIS” or the “Company”) is a global entertainment, communications, and networking technology and solutions provider, headquartered in Suwanee, Georgia. The Company operates in three business segments, Customer Premises Equipment, Network & Cloud, and Enterprise Networks (See Note 10 *Segment Information* of Notes to the Consolidated Financial Statements for additional details), specializing in enabling service providers including cable, telephone, and digital broadcast satellite operators and media programmers to deliver media, voice, IP data services, and Wi-Fi to their subscribers and enabling enterprises to experience constant, wireless and wired connectivity across complex and varied networking environments. ARRIS is a leader in set-tops, digital video and Internet Protocol Television distribution systems, broadband access infrastructure platforms, associated data and voice Customer Premises Equipment, and wired and wireless enterprise networking. The Company’s solutions are complemented by a broad array of services including technical support, repair and refurbishment, and systems design and integration.

The Company has evaluated subsequent events through the date that the financial statements were issued.

### Note 2. Summary of Significant Accounting Policies

#### (a) Consolidation

The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries and consolidated venture in which the Company owns more than 50% of the outstanding voting shares of the entity. Intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP), and our reporting currency is the United States Dollar (USD).

#### (b) Use of Estimates

The preparation of the consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

(c) *Reclassifications*

Certain prior year amounts in the financial statements and notes have been reclassified to conform to the fiscal year 2017 presentation.

(d) *Cash, Cash Equivalents, and Investments*

ARRIS's cash and cash equivalents (which are highly-liquid investments with a remaining maturity at the date of purchase of three months or less) are primarily held in demand deposit accounts and money market accounts. The Company holds investments consisting of mutual funds and debt securities classified as available-for-sale, which are stated at estimated fair value. The debt securities consist primarily of commercial paper, certificates of deposits, short term corporate obligations and U.S. government agency financial instruments. These investments are on deposit with major financial institutions.

The Company accounts for investments in companies in which it has significant influence, or ownership between 20% and 50% of the investee under the equity method of accounting. Under the equity method, the investment is originally recorded at cost and adjusted to recognize the Company's share of net earnings or losses, any basis difference of the investee, and dividends received.

Investments in which we do not exercise significant influence (generally less than a 20 percent ownership interest) are accounted for under the cost method.

The Company evaluates its investments for impairment whenever events or changes in circumstances indicate that the carrying amount of such investments may not be recoverable. An investment is written down to fair value if there is evidence of a loss in value which is other than temporary.

(e) *Accounts Receivable and Allowance for Doubtful Accounts and Sales Returns*

Accounts receivable are stated at amounts owed by the customers, net of allowance for doubtful accounts, sales returns and allowances. ARRIS establishes a reserve for doubtful accounts based upon the historical experience and leading market indicators in collecting accounts receivable. A majority of the accounts receivable are from a few large cable system operators and telecommunication companies, either with investment rated debt outstanding or with substantial financial resources, and have favorable payment histories. If ARRIS was to have a collection problem with one of its major customers, it is possible the reserve will not be sufficient. ARRIS calculates the reserve for uncollectible accounts using a model that considers customer payment history, recent customer press releases, bankruptcy filings, if any, Dun & Bradstreet reports, and financial statement reviews. The calculation is reviewed by management to assess whether there needs to be an adjustment to the reserve for uncollectible accounts. The reserve is established through a charge to the provision and represents amounts of current and past due customer receivable balances of which management deems a loss to be both probable and estimable. Accounts receivable are charged to the allowance when determined to be no longer collectible.

ARRIS also establishes a reserve for sales returns and allowances. The reserve is an estimate of the impact of potential returns based upon historic trends.

The following table represents a summary of the changes in the reserve for allowance for doubtful accounts, and sales returns and allowances for fiscal 2017, 2016 and 2015 (in thousands):

|   | <u>2017</u>     | <u>2016</u>     | <u>2015</u>    |
|---|-----------------|-----------------|----------------|
| Balance at beginning of fiscal year . . . . . | \$15,253        | \$ 9,975        | \$6,392        |
| (Credit) charges to expenses . . . . .        | (566)           | 1,386           | 2,997          |
| (Write-offs) recoveries, net . . . . .        | <u>(4,457)</u>  | <u>3,892</u>    | <u>586</u>     |
| Balance at end of fiscal year . . . . .       | <u>\$10,230</u> | <u>\$15,253</u> | <u>\$9,975</u> |

(f) *Inventories*

Inventories are stated at the lower of cost or net realizable value. Inventory cost is determined on a first-in, first-out basis. The cost of work-in-process and finished goods is comprised of material, labor, and overhead.

(g) *Revenue recognition*

ARRIS generates revenue from of varying activities, including the delivery of stand-alone equipment, custom design and installation services, and bundled sales arrangements inclusive of equipment, software and services. The revenue from these activities is recognized in accordance with applicable accounting guidance and their related interpretations.

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

- *When persuasive evidence of an arrangement exists.* Contracts and customer purchase orders are used to determine the existence of an arrangement. For professional services evidence that an agreement exists includes information documenting the scope of work to be performed, price, and customer acceptance. These are contained in the signed contract, purchase order, or other documentation that shows scope, price and customer acceptance.
- *Delivery has occurred.* Shipping documents, proof of delivery and customer acceptance (when applicable) are used to verify delivery.
- *The fee is fixed or determinable.* Pricing is considered fixed or determinable at the execution of a customer arrangement, based on specific products and quantities to be delivered at specific prices. This determination includes a review of the payment terms associated with the transaction and whether the sales price is subject to refund or adjustment or future discounts.
- *Collectability is reasonably assured.* The Company assesses the ability to collect from customers based on a number of factors that include information supplied by credit agencies, analyzing customer accounts, reviewing payment history and consulting bank references. Should a circumstance arise where a customer is deemed not creditworthy, all revenue related to the transaction will be deferred until such time that payment is received and all other criteria to allow the Company to recognize revenue have been met.

Revenue is deferred if any of the above revenue recognition criteria are not met as well as when certain circumstances exist for any of our products or services, including, but not limited to:

- When undelivered products or services that are essential to the functionality of the delivered product exist, revenue is deferred until such undelivered products or services are delivered.
- When required acceptance has not occurred.
- When trade-in rights are granted at the time of sale, that portion of the sale is deferred until the trade-in right is exercised or the right expires. In determining the deferral amount, management estimates the expected trade-in rate and future value of the product upon trade-in. These factors are periodically reviewed and updated by management, and the updates may result in either an increase or decrease in the deferral.

*Equipment* — The Company provides customers with equipment that can be placed within various stages of a broadband system that allows for the delivery of telephony, video and high-speed data as well as outside plant construction and maintenance equipment. For the Enterprise segment, equipment sales include products for wireless and wired connections to data networks. For equipment sales, revenue recognition is generally established when the products have been shipped, risk of loss has transferred, objective evidence exists that the product has been accepted, and no significant obligations remain relative to the transaction. Additionally, based on historical experience, ARRIS has established reliable estimates related to sales returns and other allowances for discounts. These estimates are recorded as a reduction to revenue at the time the revenue is initially recorded.

ARRIS's equipment deliverables typically include proprietary operating system software, which together deliver the essential functionality of its products. Therefore, ARRIS's equipment deliverables are considered non-software elements and are not subject to industry-specific software revenue recognition guidance.

*Multiple Element Arrangements* - Certain customer transactions may include multiple deliverables based on the bundling of equipment, software and services. When a multiple element arrangement exists, the fee from the arrangement is allocated to the various deliverables, to the extent appropriate, so that the proper amount can be recognized as revenue as each element is delivered. Based on the composition of the arrangement, the Company analyzes the provisions of the accounting guidance to determine the appropriate model to allocate revenue to the multiple elements. If the arrangement includes a combination of elements that fall within different applicable guidance, ARRIS follows the provisions of the hierarchal literature to separate those elements and apply the relevant guidance to each.

To determine the estimated selling price in multiple-element arrangements, the Company first looks to establish vendor specific objective evidence (“VSOE”) of the selling price using the prices charged for a deliverable when sold separately. If VSOE of the selling price cannot be established for a deliverable, the Company looks to establish third-party evidence (“TPE”) of the selling price by evaluating the pricing of similar and interchangeable competitor products or services in stand-alone arrangements. However, as ARRIS’s products typically contain a significant element of proprietary technology and may offer substantially different features and functionality from its competitors, ARRIS has been unable to obtain comparable pricing information with respect to its competitors’ products. Therefore, the Company has not been able to obtain reliable evidence of TPE of the selling price. If neither VSOE nor TPE of the selling price can be established for a deliverable, the Company establishes best estimate selling price (“BESP”) by reviewing historical transaction information and considering several other internal factors, including discounting and margin objectives. The Company regularly reviews estimated selling price of the product offerings and maintain internal controls over the establishment and updates of these estimates.

For arrangements that fall within the software revenue recognition guidance, the fee is allocated to the various elements based on VSOE of fair value. If sufficient VSOE of fair value does not exist for the allocation of revenue to all the various elements in a multiple element arrangement, all revenue from the arrangement is deferred until the earlier of the point at which such sufficient VSOE of fair value is established or all elements within the arrangement are delivered. If VSOE of fair value exists for all undelivered elements, but does not exist for one or more delivered elements, the arrangement consideration is allocated to the various elements of the arrangement using the residual method of accounting. Under the residual method, the amount of the arrangement consideration allocated to the delivered elements is equal to the total arrangement consideration less the aggregate fair value of the undelivered elements. Using this method, any potential discount on the arrangement is allocated entirely to the delivered elements, which ensures that the amount of revenue recognized at any point in time is not overstated. Under the residual method, if VSOE of fair value exists for the undelivered element, generally PCS, the fair value of the undelivered element is deferred and recognized ratably over the term of the PCS contract, and the remaining portion of the arrangement is recognized as revenue upon delivery, which generally occurs upon delivery of the product or implementation of the system. Many of ARRIS’s products are sold in combination with customer support and maintenance services, which consist of software updates and product support. Software updates provide customers with rights to unspecified software updates that ARRIS chooses to develop and to maintenance releases and patches that the Company chooses to release during the period of the support period. Product support services include telephone support, remote diagnostics, email and web access, access to on-site technical support personnel and repair or replacement of hardware in the event of damage or failure during the term of the support period. Maintenance and support service fees are recognized ratably under the straight-line method over the term of the contract, which is generally one year. The Company does not record receivables associated with maintenance revenues without a firm, non-cancelable order from the customer. VSOE of fair value is determined based on the price charged when the same element is sold separately and based on the prices at which our customers have renewed their customer support and maintenance. For elements that are not yet being sold separately, the price established by management, if it is probable that the price, once established, will not change before the separate introduction of the element into the marketplace is used to measure VSOE of fair value for that element.

*Software Sold Without Tangible Equipment* — While not significant, ARRIS does sell internally developed software as well as software developed by outside third parties that does not require significant production, modification or customization. For arrangements that contain only software and the related post-contract support, the Company recognizes revenue in accordance with the applicable software revenue recognition guidance. If the arrangement includes multiple elements that are software only, then the software revenue recognition guidance is applied and the fee is allocated to the various elements based on VSOE of fair value. If sufficient VSOE of fair value does not exist for the allocation of revenue to all the various elements in a multiple element software arrangement, all revenue from the arrangement is deferred until the earlier of the point at which such sufficient VSOE of fair value is established or all elements within the arrangement are delivered. If VSOE of fair value exists for all undelivered elements, but does not exist for one or more delivered elements, the arrangement consideration is allocated to the various elements of the arrangement using the residual method of accounting. Under the residual method, the amount of the arrangement consideration allocated to the delivered elements is equal to the total arrangement consideration less the aggregate fair value of the undelivered elements. Under the residual method, if VSOE of fair value exists for the undelivered element, generally post contract support (“PCS”), the fair value of the undelivered element is deferred and recognized ratably over the term of the PCS contract, and the remaining portion of the arrangement is recognized as revenue upon delivery. If sufficient VSOE of fair value does not exist for PCS, revenue for the arrangement is recognized ratably over the term of support.

*Standalone Services* — Installation, training, and professional services are generally recognized in service revenue when performed or upon completion of the service when the final act is significant in relation to the overall service transaction. The key element for Professional Services in determining when service transaction revenue has been earned is determining the pattern of delivery or performance which determines the extent to which the earnings process is complete and the extent to which customers have received value from services provided. The delivery or performance conditions of our service transactions are typically evaluated under the proportional performance or completed performance model.

*Incentives* — Customer incentive programs that include consideration, primarily rebates/credits to be used against future product purchases and certain volume discounts, are recorded as a reduction of revenue when the shipment of the requisite equipment occurs.

*Value Added Resellers* — ARRIS typically employs the sell-in method of accounting for revenue when using a Value Added Reseller (“VAR”) as our channel to market. Because product returns are restricted, revenue under this method is generally recognized at the time of shipment to the VAR provided all criteria for recognition are met. There are occasions, based on facts and circumstances surrounding the VAR transaction, where ARRIS will employ the sell-through method of recognizing revenue and defer that revenue until payment occurs.

*Retail* — Some of ARRIS’s product is sold through retail channels, which may include provisions involving a right of return. Upon shipment of the product, the Company reduces revenue for an estimate of potential future product returns related to the current period product revenue. Management analyzes historical returns, channel inventory levels, and current economic trends related to the Company’s products when evaluating the adequacy of the allowance for sales returns. When applicable, revenue on shipments is reduced for estimated price protection and sales incentives that are deemed to be contra-revenue under the authoritative guidance for revenue recognition.

(h) *Shipping and Handling Fees*

Shipping and handling costs for the years ended December 31, 2017, 2016, and 2015 were approximately \$12.6 million, \$4.3 million and \$5.6 million, respectively, and are classified in cost of sales.

(i) *Taxes Collected from Customers and Remitted to Governmental Authorities*

Taxes assessed by a government authority that are both imposed on and concurrent with specific revenue transactions between us and our customers are presented on a net basis in our Consolidated Statements of Income.

(j) *Depreciation of Property, Plant and Equipment*

The Company provides for depreciation of property, plant and equipment on the straight-line basis over estimated useful lives of 10 to 40 years for buildings and improvements, 2 to 10 years for machinery and equipment, and the shorter of the term of the lease or useful life for leasehold improvements. Included in depreciation expense is the amortization of landlord funded tenant improvements which amounted to \$12.1 million in 2017, \$6.6 million in 2016 and \$4.5 million in 2015. Depreciation expense, including amortization of capital leases, for the years ended December 31, 2017, 2016, and 2015 was approximately \$88.2 million, \$90.6 million, and \$71.8 million, respectively.

Certain events or changes in circumstances may indicate that the recoverability of the carrying amount of property, plant and equipment should be assessed, including, among others, a significant decrease in market value, a significant change in the business climate in a particular market, or a current period operating or cash flow loss combined with historical losses or projected future losses. To test for recovery, ARRIS groups assets (an "asset group") in a manner that represents the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. When such events or changes in circumstances are present, the Company estimates the future cash flows expected to result from the use of the asset or asset group and its eventual disposition. These estimated future cash flows are consistent with those used in internal planning. If the sum of the expected future cash flows (undiscounted and pre-tax based upon policy decision) is less than the carrying amount, the Company recognizes an impairment loss. The impairment loss recognized is the amount by which the carrying amount exceeds the fair value. A variety of methodologies are used to determine the fair value of property, plant and equipment, including appraisals and discounted cash flow models, which are consistent with the assumptions the Company believes hypothetical marketplace participants would use. See Note 12 *Property, Plant and Equipment* of Notes to the Consolidated Financial Statements for further information on property, plant and equipment.

(k) *Goodwill, and Other Intangible Assets*

Intangible assets are classified into three categories: (1) goodwill, (2) intangible assets with definite lives subject to amortization, and (3) intangible assets with indefinite lives not subject to amortization. The Company determines the useful lives of its identifiable intangible assets after considering the specific facts and circumstances related to each intangible asset. Factors the Company considers when determining useful lives include the contractual term of any agreement related to the asset, the historical performance of the asset, the Company's long-term strategy for using the asset, any laws or other local regulations which could impact the useful life of the asset, and other economic factors, including competition and specific market conditions. Intangible assets that are deemed to have definite lives are amortized, primarily on a straight-line basis, over their useful lives, generally ranging from 1 to 13 years. Certain intangible assets are being amortized using an accelerated method, as an accelerated method best approximates the distribution of cash flows generated by the intangible assets. See Note 5 *Goodwill and Other Intangible Assets* of Notes to the Consolidated Financial Statements for further information on goodwill and other intangible assets.

Goodwill

The Company performs impairment tests of goodwill at the reporting unit level, which is at or one level below the operating segments. The operating segments are primarily based on the nature of the products and services offered, which is consistent with the way management operates the business. The Customer Premises Equipment and Enterprise Networks operating segments are the same as the reporting unit. The Network &

Cloud operating segment is subdivided into three reporting units which are Network Infrastructure, Cloud Services, and Cloud TV. Goodwill is assigned to the reporting unit or units that benefit from the synergies arising from each business combination.

The Company evaluates goodwill for impairment annually as of October 1<sup>st</sup>, or when an indicator of impairment exists. As of October 1, 2017, we early adopted Accounting Standards Update (“ASU”) 2017-04, Intangibles - Goodwill and Other (Topic 350) - Simplifying the Test for Goodwill Impairment (“ASU 2017-04”). ASU 2017-04 eliminated Step 2 of the goodwill impairment test in which an entity had to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities. The standard does not change the guidance on completing Step 1 of the goodwill impairment test. In accordance with the new standard, we compare the fair value of our reporting units with the carrying amount, including goodwill. We recognize an impairment charge for the amount by which the carrying amount exceeds a reporting unit’s fair value, as applicable.

The Company typically uses a weighting of income approach using discounted cash flow models and a market approach to determine the fair value of a reporting unit. The assumptions used in these models are consistent with those the Company believes hypothetical marketplace participants would use.

The Company continues to have the option to perform the optional qualitative assessment of goodwill prior to completing the Step 1 process described above to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount.

During the fourth quarter of 2017, the Company determined the carrying amount of its Cloud TV reporting unit associated with our ActiveVideo acquisition exceeded its fair value, and as such have recorded a partial goodwill impairment of \$51.2 million as of December 31, 2017, of which \$17.9 million is attributable to non-controlling interest. There was no impairment of goodwill resulting from the Company’s annual impairment testing in 2016 and 2015.

#### Indefinite-lived intangible assets, net

The Company tests intangible assets determined to have indefinite useful lives, including certain trademarks and in-process research and development, for impairment annually, or more frequently if events or circumstances indicate that assets might be impaired. The Company performs these annual impairment reviews as of the first day of our fourth fiscal quarter (October 1). A variety of methodologies are used in conducting impairment assessments of indefinite-lived intangible assets, including, but not limited to, discounted cash flow models, which are based on the assumptions the Company believes hypothetical marketplace participants would use. For indefinite-lived intangible assets other than goodwill, if the carrying amount exceeds the fair value, an impairment charge is recognized in an amount equal to that excess. Acquired in-process research and development assets are initially recognized and measured at fair value and classified as indefinite-lived assets until the successful completion or abandonment of the associated research and development efforts. Accordingly, during the development period after acquisition, this asset is not amortized as charges to earnings. Completion of the associated research and development efforts cause the indefinite-lived in-process research and development assets to become a finite-lived asset. As such, prior to commencing amortization the assets is tested for impairment.

The Company has the option to perform a qualitative assessment of indefinite-lived intangible assets, prior to completing the impairment test described above. The Company must assess whether it is more likely than not that the fair value of the intangible asset is less than its carrying amount. If the Company concludes that this is the case, it must perform the testing described above. Otherwise, the Company does not need to perform any further assessment.

During the fourth quarter of 2017, the Company recorded a \$3.8 million partial impairment related to indefinite-lived tradenames acquired included as part of our Cloud TV reporting unit, of which \$1.3 million is attributable to noncontrolling interest.



During 2016, the Company wrote off \$2.2 million of in-process R&D related to projects for which development efforts were abandoned subsequent to the Pace combination.

There were no impairment charges related to intangible assets with indefinite-lives in 2015.

Definite-lived intangible assets, net

When facts and circumstances indicate that the carrying amount of definite-lived intangible assets may not be recoverable, management assesses the recoverability of the carrying amount by preparing estimates of future cash flows. These estimated future cash flows are consistent with those we use in our internal planning. To test for recovery, the Company groups assets (an “asset group”) in a manner that represents the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. If the sum of the expected future cash flows (undiscounted and pre-tax based upon policy decision) is less than the carrying amount, the Company recognizes an impairment loss. The impairment loss recognized is the amount by which the carrying amount of the asset or asset group exceeds the fair value. A variety of methodologies are used to determine the fair value of these assets, including discounted cash flow models, which are consistent with the assumptions the Company believes hypothetical marketplace participants would use.

There were no impairment charges related to definite-lived intangible assets during 2017, 2016 and 2015.

*(l) Advertising and Sales Promotion*

Advertising and sales promotion costs are expensed as incurred. Advertising and sales promotion expense was approximately \$17.5 million, \$19.6 million, and \$16.8 million for the years ended December 31, 2017, 2016 and 2015, respectively.

*(m) Research and Development*

Research and development (“R&D”) costs are expensed as incurred. The expenditures include compensation costs, materials, other direct expenses, and an allocation of information technology, telecommunications, and facilities costs.

*(n) Warranty*

ARRIS provides warranties of various lengths to customers based on the specific product and the terms of individual agreements. For further discussion, see Note 9 *Guarantees* of the Notes to the Consolidated Financial Statements for further discussion.

*(o) Income Taxes*

ARRIS uses the liability method of accounting for income taxes, which requires recognition of temporary differences between financial statement and income tax bases of assets and liabilities, measured by enacted tax rates.

If necessary, the measurement of deferred tax assets is reduced by the amount of any tax benefits that are not expected to be realized based on available evidence. ARRIS reports a liability for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in a tax return. The Company recognizes interest and penalties, if any, related to unrecognized tax benefits in income tax expense. See Note 18 *Income Taxes* of Notes to the Consolidated Financial Statements for further discussion.

*(p) Foreign Currency*

A significant portion of the Company’s products are manufactured or assembled in Brazil, China, Mexico and Taiwan, and we have research and development centers in Canada, China, France, India, Ireland, Israel, Singapore, Sweden, Taiwan and United Kingdom. Sales into international markets have been and are expected in

the future to be an important part of the Company's business. These foreign operations are subject to the usual risks inherent in conducting business abroad, including risks with respect to currency exchange rates, economic and political destabilization, restrictive actions and taxation by foreign governments, nationalization, the laws and policies of the United States affecting trade, foreign investment and loans, and foreign tax laws.

The financial position and results of operations of certain of the Company's international subsidiaries are measured using the local currency as the functional currency. Revenues and expenses of these subsidiaries are translated into U.S. dollars at average exchange rates prevailing during the period. Assets and liabilities of these subsidiaries are translated at the exchange rates as of the balance sheet date. Translation gains and losses are recorded in accumulated other comprehensive income.

ARRIS has certain international customers who are billed in their local currency and certain international operations that procure in U.S. dollars. ARRIS also has certain predictable expenditures for international operations in local currency. Additionally, certain intercompany transactions are denominated in foreign currencies and subject to revaluation. The Company enters into forward or currency option contracts based on a percentage of expected foreign currency exposures. The percentage can vary, based on the predictability of the exposures denominated in the foreign currency. See Note 8 *Derivative Instruments and Hedging Activities* of Notes to the Consolidated Financial Statements for further discussion. Foreign currency transaction gains and losses were recognized in earnings when incurred.

*(q) Stock-Based Compensation*

See Note 19 *Stock-Based Compensation* of Notes to the Consolidated Financial Statements for further discussion of the Company's significant accounting policies related to stock based compensation.

*(r) Concentrations of Credit Risk*

Financial instruments that potentially subject ARRIS to concentrations of credit risk consist principally of cash, cash equivalents and short-term investments, accounts receivable and derivatives. ARRIS places its temporary cash investments with high credit quality financial institutions. Concentrations with respect to accounts receivable occur as the Company sells primarily to large, well-established companies, including companies outside of the United States. The Company's credit policy generally does not require collateral from its customers. ARRIS closely monitors extensions of credit to other parties and, where necessary, utilizes common financial instruments to mitigate risk or requires cash on delivery terms. Overall financial strategies and the effect of using a hedge are reviewed periodically. As of December 31, 2017, two customers represented 19% and 14% of total accounts receivable. As of December 31, 2016, three customers represented 20%, 17% and 14% of total accounts receivable.

*(s) Fair Value*

The following methods and assumptions were used by the Company in estimating its fair value disclosures for financial instruments:

- Cash, cash equivalents, and short-term investments: The carrying amounts reported in the consolidated balance sheets for cash, cash equivalents, and short-term investments approximate their fair values.
- Accounts receivable and accounts payable: The carrying amounts reported in the balance sheet for accounts receivable and accounts payable approximate their fair values.
- Marketable securities: The fair values for trading and available-for-sale equity securities are based on quoted market prices or observable prices based on inputs not in active markets but corroborated by market data.
- Non-marketable securities: Non-marketable equity securities are subject to a periodic impairment review; however, there are no open-market valuations, and the impairment analysis requires significant

judgment. This analysis includes assessment of the investee's financial condition, the business outlook for its products and technology, its projected results and cash flow, recent rounds of financing, and the likelihood of obtaining subsequent rounds of financing.

- Senior secured credit facilities: Comprised of term loans and a revolving credit facility of which the outstanding principal amount approximates fair value
- Derivative instruments: The carrying amounts reported in the balance sheet for derivative financial instruments reflect their estimated fair values. The Company has designated interest rate derivatives as cash flow hedges and the objective is to manage the variability of cash flows in the interest payments related to the portion of the variable-rate debt designated as being hedged. The Company's foreign currency derivative instruments economically hedge certain risk but are not designated as hedges. The objective of these derivatives instruments is to add stability to foreign currency gains and losses recorded as other expense (income) and to manage its exposure to foreign currency movements.

(t) *Computer Software*

*Internal-use software*

The Company capitalizes costs associated with internally developed and/or purchased software systems for internal use that have reached the application development stage and meet recoverability tests. Capitalized costs include external direct costs of materials and services utilized in developing or obtaining internal-use software and payroll and payroll-related expenses for employees who are directly associated with and devote time to the internal-use software project. Capitalization of such costs begins when the preliminary project stage is complete and ceases no later than the point at which the project is substantially complete and ready for its intended purpose. These capitalized costs are amortized on a straight-line basis over periods of two to seven years, beginning when the asset is ready for its intended use. Capitalized costs are included in property, plant, and equipment on the consolidated balance sheets.

*External-use software*

Research and development costs are charged to expense as incurred. ARRIS generally has not capitalized any such development costs because the costs incurred between the attainment of technological feasibility for the related software product through the date when the product is available for general release to customers has been insignificant.

(u) *Comprehensive Income (Loss)*

The components of comprehensive income (loss) include net income (loss), unrealized gains (losses) on available-for-sale securities, unrealized gains (losses) on certain derivative instruments, change in pension liability, net of tax, if applicable and change in foreign currency translation adjustments.

(v) *Warrants*

The Company has outstanding warrants with certain customers to purchase ARRIS's ordinary shares. Vesting of the warrants is subject to certain purchase volume commitments by the customers. Under applicable accounting guidance, if the vesting of a tranche of the warrants is probable, the Company is required to mark-to-market the fair value of the warrant until it vests, and any increase in the fair value is treated as a reduction in revenues from sales to the customers. See Note 17 *Warrants* of Notes to the Consolidated Financial Statements for further discussion.

**Note 3. Impact of Recently Issued Accounting Standards**

*Adoption of new accounting standards* — In July 2015, the Financial Accounting Standards Board ("FASB") issued updated guidance related to the simplification of the measurement of inventory. This standard

update applies to inventory that is measured using first-in, first-out or average cost methods. The standard update requires entities to measure inventory at the lower of cost or net realizable value. Net realizable value is defined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. This standard update is effective for fiscal years beginning after December 15, 2016. ARRIS adopted this update as of January 1, 2017. The adoption of this guidance did not have any impact on the Company's consolidated financial position and results of operations.

In March 2016, the FASB issued guidance, Improvements to Employee Share-Based Payment Accounting, which simplifies the accounting for share-based payment transactions. The new guidance requires excess tax benefits and tax deficiencies to be recorded in the income statement. In addition, the new standard includes provisions that impact the classification of awards as either equity or liabilities and the classification of excess tax benefits on the cash flow statements. ARRIS adopted this guidance in the first quarter of 2017. Upon adoption, using the modified retrospective transition method, the Company recorded a cumulative-effect adjustment for previously unrecognized excess tax benefits of \$8.9 million, decreasing opening accumulated deficit. Applying the guidance prospectively, an income tax benefit of approximately (\$2.6) million was recognized for the year ended December 31, 2017. Also, as a result of the adoption of this guidance, the Company made an accounting policy election to continue to estimate the number of forfeitures expected to occur and has applied the amendments in this guidance relating to classification on the statement of cash flows prospectively, as such no prior periods have been adjusted. Following adoption, the primary impact on the Consolidated Financial Statements will be the recognition of excess tax benefits in the provision for income taxes rather than additional paid-in capital, which will likely result in increased volatility in the reported amounts of income tax expense and net income. The tax effects will be treated as discrete items in our interim financial statements.

In October 2016, the FASB issued new guidance for intra-entity transfer of assets other than inventory that requires companies to immediately recognize income tax effects of intercompany transactions in their income statements, eliminating the current exception that allows companies to defer the income tax effects of certain intercompany transactions. The new guidance will be effective for public business entities in fiscal years beginning after December 15, 2017. Early adoption is only permitted as of the beginning of an annual reporting period. ARRIS adopted this update as of January 1, 2017. Upon adoption, using the modified retrospective transition method, the Company recorded a cumulative-effect adjustment for previously recognized prepaid income taxes, decreasing opening accumulated deficit by \$2.0 million and increasing non-current deferred tax assets by \$4.5 million, and decreasing other current prepaid asset by \$2.5 million. Applying the guidance prospectively, an income tax expense of approximately \$8.0 million was recognized in the quarter ended March 31, 2017. Also as a result of the adoption of this guidance, any future inter-company sale transactions of assets other than inventory will result in either income tax expense or benefit in the period of the transaction.

In January 2017, the FASB issued an accounting standard update that removes Step two of the goodwill impairment test, which requires the assessment of fair value of individual assets and liabilities of a reporting unit to measure goodwill impairments. Goodwill impairment will now be measured as the amount by which a reporting unit's carrying amount exceeds its fair value. The accounting standard update is effective for the Company for its annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2020 on a prospective basis, and early adoption is permitted. ARRIS early adopted this update as of its annual impairment testing date on October 1, 2017. Upon adoption this guidance did not have any impact on the Company's consolidated financial position and results of operations. Subsequently during the quarter ended December 31, 2017, as a result of a change in strategy for our Cloud TV reporting unit associated with our ActiveVideo acquisition, the Company expects lower future projected cash flows for the business, and as such, the Company has recorded a partial impairment of \$51.2 million for the amount by which our Cloud TV reporting unit carrying amount exceeded its fair value of which \$17.9 million is attributable to noncontrolling interest.

*Accounting standards issued but not yet effective* — In May 2014, the FASB issued accounting standard update, Revenue from Contracts with Customers. The standard requires an entity to recognize revenue to depict the transfer of control of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, the standard requires

disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The FASB issued several amendments to the standard since its initial issuance, including delaying its effective date to reporting periods beginning after December 15, 2017, but permitting companies the option to adopt the standard one year earlier, as well as clarifications on identifying performance obligations and accounting for licenses of intellectual property, among others.

There are two permitted transition methods under the new standard, the full retrospective method or the modified retrospective method. Under the full retrospective method, the standard would be applied to each prior reporting period presented and the cumulative effect of applying the standard would be recognized at the earliest period shown on the face of the financial statements being presented. Under the modified retrospective method, the cumulative effect of applying the standard would be recognized at the date of the initial application of the standard and the effect of the prior periods would be calculated and shown through a cumulative effect change in retained earnings. ARRIS is adopting the standard using the modified retrospective method on January 1, 2018.

The Company has a cross-functional team that analyzed the impact of the standard on our revenue streams and contract portfolio to identify potential differences that would arise from applying the requirements of the new standard. To date, the Company has identified major revenue streams, performed an analysis of a sample of contracts to evaluate the impact of the standard, and are finalizing our contract analysis review and accounting policies and evaluating the new disclosure requirements. ARRIS is in the process of testing a new revenue recognition application, new business processes, and implementing new controls to support the adoption of the new standard.

While the Company continues to assess all potential impacts of adopting the new guidance, based on analysis completed to date, the Company has identified certain instances where the Company will recognize revenue earlier under the new standard. For example, ARRIS will recognize revenue earlier for certain software license contracts. Likewise, the Company will recognize revenue earlier for certain arrangements with Value Added Resellers (“VARs”) currently accounted for utilizing the sell-through method. The new standard also requires an allocation of the transaction price to contract performance obligations based on their relative standalone selling prices, which could impact the amount and timing of revenue recognition depending on when each performance obligation is satisfied. The new revenue standard is not expected to have a material impact on the amount and timing of revenue recognized in the Company’s consolidated financial statements. While the process to determine the adjustment at adoption and the related controls are still in process, the Company expects to recognize a cumulative effect adjustment of \$1.0 million to \$10.0 million in 2018 that will reduce the accumulated deficit. The Company is currently assessing the tax impact from adoption.

In February 2016, the FASB issued new guidance that will require lessees to recognize most leases on their balance sheets as a right-of-use asset with a corresponding lease liability, and lessors to recognize a net lease investment. Additional qualitative and quantitative disclosures will also be required. This standard is effective for interim and annual reporting periods beginning after December 15, 2018, although early adoption is permitted. The Company has established a project management team to analyze the impact of this standard by reviewing its current accounting policies and practices to identify potential impacts that would result from the application of this standard. The Company has determined changes are likely required to its business processes, systems and controls to effectively report leases and disclosure under the new standard.

In August 2016, the FASB issued amended guidance on the classification of certain cash receipts and payments in the statement of cash flows. The primary purpose of the amended guidance is to reduce the diversity in practice that has resulted from the lack of consistent principles on this topic. The amended guidance adds or clarifies guidance on eight cash flow issues, including debt prepayment or debt extinguishment costs, settlement of zero-coupon debt instruments or certain other debt instruments, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims, proceeds from the settlement of corporate-owned life insurance policies, distributions received from equity method investees, beneficial interests in securitization transactions and separately identifiable cash flows and application of the predominance principle. The guidance is effective for the Company beginning January 1, 2018 for both interim and annual reporting periods, with early adoption permitted. Entities must apply the guidance retrospectively to all periods presented

but may apply it prospectively from the earliest date practicable if retrospective application would be impracticable. The Company is currently assessing the potential impact of the adoption of this guidance on its Consolidated Financial Statements.

In November 2016, the FASB issued new guidance that requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The new guidance is effective for interim and annual periods beginning after December 15, 2017 and early adoption is permitted. The amendment should be adopted retrospectively. The Company is currently assessing the potential impact of the adoption of this guidance on its Consolidated Financial Statements.

In January 2017, the FASB issued an accounting standard update that clarifies the definition of a business to help companies evaluate whether acquisition or disposal transactions should be accounted for as asset groups or as businesses. The accounting standard update will be effective for the Company beginning in the first quarter of fiscal 2019 on a prospective basis. The impact of this accounting standard update will be facts and circumstances dependent, but the Company expects, that in some situations, transactions that were previously accounted for as business combinations or disposal transactions will be accounted for as asset purchases or asset sales under the accounting standard update.

In March 2017, the FASB issued an accounting standard update that requires entities to disaggregate the service cost component from the other components of net periodic benefit costs and present it with other current compensation costs for related employees in the income statement, and present the other components elsewhere in the income statement and outside of income from operations if that subtotal is presented. The amendments in this update also allow only the service cost component to be eligible for capitalization when applicable. The accounting standard update will be effective for the Company in the first quarter of fiscal 2018. Early adoption is permitted. See Note 20 *Employee Benefit Plans* of Notes to the Consolidated Financial Statements for the components of net periodic cost for 2017, 2016 and 2015.

In May 2017, the FASB issued an accounting standard which amends the scope of modification accounting for share-based payment arrangements. The standard provides guidance on the types of changes to the terms or conditions of share-based payment awards to which an entity would be required to apply modification accounting. The accounting standard will be applied prospectively to awards modified on or after the effective date. It will be effective for interim and annual periods beginning after December 15, 2017 (January 1, 2018 for the Company). Early adoption is permitted. The Company is currently assessing the potential impact of the adoption of this standard on its Consolidated Financial Statements.

In August 2017, the FASB issued an accounting standard which eliminates the requirement to separately measure and report hedge ineffectiveness and requires companies to recognize all elements of hedge accounting that impact earnings in the same income statement line item where the hedged item resides. The standard includes new alternatives for measuring the hedged item for fair value hedges of interest rate risk and eases the requirements for effectiveness testing, hedge documentation and applying the critical terms match method. Finally, the standard introduces new alternatives that permit companies to reduce the risk of material error if the shortcut method is misapplied. The accounting standard is effective beginning January 1, 2019 and is required to be applied prospectively. The Company is currently assessing the potential impact of the adoption of this standard on its Consolidated Financial Statements.

#### **Note 4. Business Acquisitions**

##### ***Acquisition of Ruckus Wireless and ICX Switch business***

On December 1, 2017, ARRIS completed the acquisition of Ruckus Wireless and ICX Switch business (“Ruckus Networks”). The total cash paid was approximately \$761.0 million (net of estimated adjustments for

working capital and noncash settlement of pre-existing payables and receivables) The purchase agreement provides for customary final adjustments and potential cash payments or receipts that are expected to occur in 2018.

With this acquisition, ARRIS expands its leadership in converged wired and wireless networking technologies beyond the home into the education, public venue, enterprise, hospitality, and multi-dwelling unit markets.

The preliminary estimated goodwill of \$318.0 million arising from the acquisition is attributable to the strategic opportunities and synergies that are expected to arise from the acquisition of Ruckus Networks and the workforce of the acquired business. Goodwill has been preliminarily assigned to our new Enterprise Networks reporting unit as of December 31, 2017. The Company will finalize the assignment during the measurement period. Goodwill is not expected to be deductible for income tax purposes.

The following table summarizes the fair value of consideration transferred for Ruckus Networks (in thousands):

|                                       |                  |
|---------------------------------------|------------------|
| Cash consideration                    | \$779,743        |
| Estimated working capital adjustments | (16,371)         |
| Non-cash consideration <sup>(1)</sup> | <u>(2,359)</u>   |
| Total consideration transferred       | <u>\$761,013</u> |

(1) Non-cash consideration represents \$2.4 million settlement of preexisting payables and receivables between Ruckus Networks and ARRIS.

Total consideration excludes \$61.5 million paid to Broadcom for the cash settlement of stock-based awards for which vesting was accelerated as contemplated in the purchase agreement. This was expensed in the fourth quarter of 2017.

The following is a summary of the estimated fair values of the net assets acquired (in thousands):

|   | <u>Amounts Recognized<br/>as of Acquisition<br/>Date</u> |
|---|--|
| Total estimated consideration transferred       | <u>\$761,013</u>   |
| Cash and cash equivalents                       | 18,958   |
| Accounts receivables                            | 32,940   |
| Inventories                                     | 48,897   |
| Prepays and other                               | 4,836  |
| Property, plant & equipment                     | 33,500   |
| Intangible assets                               | 472,500  |
| Other assets                                    | 39,528   |
| Accounts payable and accrued liabilities        | (17,216)   |
| Other current liabilities                       | (9,666)  |
| Deferred revenue                                | (47,718)   |
| Noncurrent deferred income tax liabilities, net | (92,233)   |
| Other noncurrent liabilities                    | <u>(41,347)</u>  |
| Net assets acquired                             | <u>442,979</u>   |
| Goodwill  | <u>\$318,034</u>   |

The acquisition was accounted for using the acquisition method of accounting, which requires, among other things, that the assets acquired and liabilities assumed be recognized at their acquisition date fair values, with any

excess of the consideration transferred over the estimated fair values of the identifiable net assets acquired recorded as goodwill. The accounting for the business combination is based on currently available information and is considered preliminary. The Company has not received a final valuation report from the independent valuation expert for acquired property, plant and equipment and intangible assets. In addition, the Company is still gathering information about income taxes and deferred income tax assets and liabilities, accounts receivables, inventories, deferred revenues, warranty obligations, other assets and accrued liabilities based on facts that existed as of the date of the acquisition. The final accounting for the business combination may differ materially from that presented in these unaudited consolidated financial statements.

The \$472.5 million of acquired intangible assets are as follows (in thousands):

|   | <u>Preliminary<br/>Estimated<br/>Fair value</u> | <u>Estimated Weighted<br/>Average Life (years)</u> |
|---|---|--|
| Technology and patents . . . . .                          | \$265,000                                       | 6.8  |
| Customer contracts and relationships . . . . .            | 100,000   | 7.0  |
| In-process research and development . . . . .             | 50,000  | indefinite   |
| Trademarks and tradenames . . . . .                       | 22,500  | 10.0   |
| Backlog . . . . .   | <u>35,000</u>                                   | 0.5  |
| Total estimated fair value of intangible assets . . . . . | <u>\$472,500</u>                                |  |

The fair value of trade accounts receivable is \$32.9 million with the gross contractual amount being \$33.8 million. The Company expects \$0.9 million to be uncollectible.

The Company incurred acquisition related costs of \$74.5 million during 2017, of which \$61.5 million relates to the cash settlement of equity awards held by transferring employees. This amount was expensed by the Company as incurred and is included in the Consolidated Statement of Operations in the line item titled "Integration, acquisition, restructuring and other costs".

The Ruckus Networks business contributed revenues of approximately \$45.7 million to our consolidated results from the date of acquisition through December 31, 2017.

***Acquisition of Pace***

On January 4, 2016, ARRIS completed its acquisition of Pace for approximately \$2,074 million, including \$638.8 million in cash and issuance of 47.7 million ordinary shares of ARRIS International plc (formerly ARRIS International Limited) and \$0.3 million of non-cash consideration.

The Company completed the accounting for the business combination during the fourth quarter of 2016.



## Note 5. Goodwill and Intangible Assets

The changes in the carrying amount of goodwill for the three years ended December 31, 2017 are as follows (in thousands):

|   | CPE                | N & C             | Enterprise       | Total              |
|---|--------------------|-------------------|------------------|--------------------|
| Goodwill . . . . .                          | 682,582            | 710,037           | —                | \$1,392,619        |
| Accumulated impairment losses . . . . .     | —                  | (378,656)         | —                | (378,656)          |
| Balance as of December 31, 2015 . . . . .   | <u>\$ 682,582</u>  | <u>\$ 331,381</u> | <u>\$ —</u>      | <u>\$1,013,963</u> |
| <i>Changes in year 2016:</i>                |                    |                   |                  |                    |
| Goodwill acquired (disposed), net . . . . . | 698,106            | 291,331           | —                | 989,437            |
| Currency translation . . . . .              | 10,483             | (60)              | —                | 10,423             |
| Other . . . . .                             | —                  | 2,346             | —                | 2,346              |
| Balance as of December 31, 2016 . . . . .   | <u>\$1,391,171</u> | <u>\$ 624,998</u> | <u>\$ —</u>      | <u>\$2,016,169</u> |
| Goodwill . . . . .                          | 1,391,171          | 1,003,654         | —                | 2,394,825          |
| Accumulated impairment losses . . . . .     | —                  | (378,656)         | —                | (378,656)          |
| Balance as of December 31, 2016 . . . . .   | <u>\$1,391,171</u> | <u>\$ 624,998</u> | <u>\$ —</u>      | <u>\$2,016,169</u> |
| <i>Changes in year 2017:</i>                |                    |                   |                  |                    |
| Goodwill acquired, net . . . . .            | —                  | —                 | 318,034          | 318,034            |
| Impairment . . . . .                        | —                  | (51,200)          | —                | (51,200)           |
| Other . . . . .                             | (4,491)            | —                 | —                | (4,491)            |
| Balance as of December 31, 2017 . . . . .   | <u>\$1,386,680</u> | <u>\$ 573,798</u> | <u>\$318,034</u> | <u>\$2,278,512</u> |
| Goodwill . . . . .                          | 1,386,680          | 1,003,654         | 318,034          | 2,708,368          |
| Accumulated impairment losses . . . . .     | —                  | (429,856)         | —                | (429,856)          |
| Balance as of December 31, 2017 . . . . .   | <u>\$1,386,680</u> | <u>\$ 573,798</u> | <u>\$318,034</u> | <u>\$2,278,512</u> |

During 2017, the Company recorded preliminary estimated goodwill of \$318.0 million related to the Ruckus Network acquisition. In addition, during the quarter ended December 31, 2017, as a result of a change in strategy for our Cloud TV reporting unit associated with our Active Video acquisition, the Company expects lower future projected cash flows for the business, and as such, the Company has recorded a partial impairment of \$51.2 million for the amount by which the Cloud TV reporting unit carrying amount exceeded its fair value of which \$17.9 million is attributable to noncontrolling interest. The partial impairment was included in impairment of goodwill and intangible assets on the Consolidated Statements of Income.

During 2016, the Company recorded \$989.5 million of goodwill related to the Pace combination, and disposed of \$(0.1) million of goodwill related to a business divestiture.

### *Intangible Assets*

The gross carrying amount and accumulated amortization of the Company's intangible assets as of December 31, 2017 and December 31, 2016 are as follows (in thousands):

|  | December 31, 2017  |                          |                    | December 31, 2016  |                          |                    |
|--|--------------------|--------------------------|--------------------|--------------------|--------------------------|--------------------|
|  | Gross Amount       | Accumulated Amortization | Net Book Value     | Gross Amount       | Accumulated Amortization | Net Book Value     |
| <u>Definite-lived intangible assets:</u>       |                    |                          |                    |                    |                          |                    |
| Customer relationships .....                   | \$1,672,470        | \$ 780,655               | \$ 891,815         | \$1,572,947        | \$ 624,719               | \$ 948,228         |
| Developed technology, patents & licenses ..... | 1,521,893          | 771,200                  | 750,693            | 1,248,719          | 571,808                  | 676,911            |
| Trademarks, trade and domain names .....       | 87,472             | 41,885                   | 45,587             | 83,472             | 41,433                   | 42,039             |
| Backlog .....                                  | 35,000             | 5,833                    | 29,167             | 16,400             | 16,400                   | —                  |
| Sub-total .....                                | <u>\$3,316,835</u> | <u>\$1,599,573</u>       | <u>\$1,717,262</u> | <u>\$2,921,538</u> | <u>\$1,254,360</u>       | <u>\$1,667,178</u> |
| <u>Indefinite-lived intangible assets:</u>     |                    |                          |                    |                    |                          |                    |
| Trademarks and trade names .....               | —                  | —                        | —                  | 5,900              | —                        | 5,900              |
| In-process research and development .....      | 54,100             | —                        | 54,100             | 4,100              | —                        | 4,100              |
| Sub-total .....                                | <u>54,100</u>      | <u>—</u>                 | <u>54,100</u>      | <u>10,000</u>      | <u>—</u>                 | <u>10,000</u>      |
| Total .....                                    | <u>\$3,370,935</u> | <u>\$1,599,573</u>       | <u>\$1,771,362</u> | <u>\$2,931,538</u> | <u>\$1,254,360</u>       | <u>\$1,677,178</u> |

During 2017, the Company recorded \$472.5 million of intangible assets (other than goodwill) associated with the Ruckus Networks acquisition, see Note 4 Business Acquisitions of Notes to the Consolidated Financial Statements for further discussion. Due to lower projected cashflows of its Cloud TV reporting unit, the Company recorded a \$3.8 million partial impairment of indefinite-lived trademarks and tradenames, determined using a "relief from royalty income" approach. The partial impairment was included in impairment of goodwill and intangible assets on the Consolidated Statements of Income. The remaining carrying amount was reclassified as a definite-lived intangible asset. Certain fully amortized intangible assets have been eliminated from both the gross and accumulated amortization amounts.

During 2016, the Company recorded \$1,258.7 million of intangible assets (other than goodwill) associated with the Pace combination, along with \$5.4 million related to acquired technology licenses and \$8.3 million for foreign currency translation. In addition, in-process research and development of \$2.2 million was written off related to projects for which development efforts were abandoned subsequent to the Pace combination. The write off related to the Company's CPE segment and was included in impairment of goodwill and intangible assets on the Consolidated Statements of Income.

Amortization expense is reported in the Consolidated Statements of Income within cost of goods sold and operating expenses. The following table presents the amortization of intangible assets (in thousands):

|  | Years Ended December 31, |                  |                  |
|--|--------------------------|------------------|------------------|
|  | 2017                     | 2016             | 2015             |
| Cost of sales .....                              | \$ 3,174                 | \$ 2,963         | \$ 670           |
| Selling, general & administrative expense .....  | 3,835                    | 4,048            | 3,480            |
| Amortization of acquired intangible assets ..... | <u>375,407</u>           | <u>397,464</u>   | <u>227,440</u>   |
| Total .....                                      | <u>\$382,416</u>         | <u>\$404,475</u> | <u>\$231,590</u> |

The estimated total amortization expense for finite-lived intangibles for each of the next five fiscal years is as follows (in thousands):

|            |           |
|------------|-----------|
| 2018       | \$402,005 |
| 2019       | 326,807   |
| 2020       | 315,077   |
| 2021       | 180,290   |
| 2022       | 146,499   |
| Thereafter | 344,484   |

#### Note 6. Investments

ARRIS's investments consisted of the following (in thousands):

|  | As of December 31,<br>2017 | As of December 31,<br>2016 |
|--|----------------------------|----------------------------|
| Current Assets:                        |                            |                            |
| Available-for-sale securities          | \$23,874                   | \$115,553                  |
| Noncurrent Assets:                     |                            |                            |
| Available-for-sale securities          | 5,718                      | 15,391                     |
| Equity method investments              | 22,021                     | 22,688                     |
| Cost method investments                | 10,092                     | 6,841                      |
| Other investments                      | <u>33,251</u>              | <u>28,012</u>              |
| Total classified as non-current assets | <u>71,082</u>              | <u>72,932</u>              |
| Total                                  | <u>\$94,956</u>            | <u>\$188,485</u>           |

*Available-for-sale securities* — ARRIS's investments in debt and marketable equity securities are categorized as available-for-sale and are carried at fair value. Realized gains and losses on available-for-sale securities are included in net income. Unrealized gains and losses on available-for-sale securities are included in our Consolidated Balance Sheet as a component of accumulated other comprehensive income (loss).

The amortized costs and fair value of available-for-sale securities were as follows (in thousands):

|                                       | December 31, 2017  |                              |                               |                 | December 31, 2016  |                              |                               |                  |
|---------------------------------------|--------------------|------------------------------|-------------------------------|-----------------|--------------------|------------------------------|-------------------------------|------------------|
|                                       | Amortized<br>Costs | Gross<br>Unrealized<br>Gains | Gross<br>Unrealized<br>Losses | Fair<br>Value   | Amortized<br>Costs | Gross<br>Unrealized<br>Gains | Gross<br>Unrealized<br>Losses | Fair<br>Value    |
| Certificates of deposit<br>(non-U.S.) | \$12,809           | \$ —                         | \$ —                          | \$12,809        | \$ 87,372          | \$ —                         | \$ —                          | \$ 87,372        |
| Corporate bonds                       | 11,003             | 86                           | (24)                          | 11,065          | 34,175             | 35                           | (77)                          | 34,133           |
| Short-term bond fund                  | —                  | —                            | —                             | —               | 5,046              | 69                           | (69)                          | 5,046            |
| Corporate obligations                 | 13                 | —                            | —                             | 13              | 3                  | —                            | —                             | 3                |
| Money markets                         | 38                 | —                            | —                             | 38              | 54                 | —                            | —                             | 54               |
| Mutual funds                          | 65                 | 14                           | —                             | 79              | 94                 | 28                           | (21)                          | 101              |
| Other investments                     | <u>4,941</u>       | <u>744</u>                   | <u>(97)</u>                   | <u>5,588</u>    | <u>4,192</u>       | <u>530</u>                   | <u>(487)</u>                  | <u>4,235</u>     |
| Total                                 | <u>\$28,869</u>    | <u>\$844</u>                 | <u>\$(121)</u>                | <u>\$29,592</u> | <u>\$130,936</u>   | <u>\$662</u>                 | <u>\$(654)</u>                | <u>\$130,944</u> |

The following table represents the breakdown of the available-for-sale investments with gross realized losses and the duration that those losses had been unrealized (in thousands):

|                                    | December 31, 2017   |                   |                   |                   |            |                   |
|------------------------------------|---------------------|-------------------|-------------------|-------------------|------------|-------------------|
|                                    | Less than 12 months |                   | 12 months or more |                   | Total      |                   |
|                                    | Fair Value          | Unrealized Losses | Fair Value        | Unrealized Losses | Fair Value | Unrealized Losses |
| Certificates of deposit (non-U.S.) | \$12,809            | \$ —              | \$—               | \$—               | \$12,809   | \$ —              |
| Corporate bonds                    | 11,065              | (24)              | —                 | —                 | 11,065     | (24)              |
| Corporate obligations              | 13                  | —                 | —                 | —                 | 13         | —                 |
| Money markets                      | 38                  | —                 | —                 | —                 | 38         | —                 |
| Mutual funds                       | 79                  | —                 | —                 | —                 | 79         | —                 |
| Other investments                  | 5,588               | (97)              | —                 | —                 | 5,588      | (97)              |
| Total                              | \$29,592            | \$(121)           | \$—               | \$—               | \$29,592   | \$(121)           |

|                                    | December 31, 2016   |                   |                   |                   |            |                   |
|------------------------------------|---------------------|-------------------|-------------------|-------------------|------------|-------------------|
|                                    | Less than 12 months |                   | 12 months or more |                   | Total      |                   |
|                                    | Fair Value          | Unrealized Losses | Fair Value        | Unrealized Losses | Fair Value | Unrealized Losses |
| Certificates of deposit (non-U.S.) | \$ 87,372           | \$ —              | \$—               | \$—               | \$ 87,372  | \$ —              |
| Corporate bonds                    | 34,133              | (77)              | —                 | —                 | 34,133     | (77)              |
| Short-term bond fund               | 5,046               | (69)              | —                 | —                 | 5,046      | (69)              |
| Corporate obligations              | 3                   | —                 | —                 | —                 | 3          | —                 |
| Money markets                      | 54                  | —                 | —                 | —                 | 54         | —                 |
| Mutual funds                       | 101                 | (21)              | —                 | —                 | 101        | (21)              |
| Other investments                  | 4,235               | (487)             | —                 | —                 | 4,235      | (487)             |
| Total                              | \$130,944           | \$(654)           | \$—               | \$—               | \$130,944  | \$(654)           |

As of December 31, 2017, for fixed income securities that were in unrealized loss positions, the Company has determined that (i) it does not have the intent to sell any of these investments, and (ii) it is not more likely than not that it will be required to sell any of these investments before recovery of the entire amortized cost basis.

The sale and/or maturity of available-for-sale securities resulted in the following activity (in thousands):

|                     | Years Ended December 31, |          |           |
|---------------------|--------------------------|----------|-----------|
|                     | 2017                     | 2016     | 2015      |
| Proceeds from sales | \$165,301                | \$25,932 | \$157,965 |
| Gross gains         | 16                       | 33       | 305       |
| Gross losses        | —                        | —        | (452)     |

The contractual maturities of the Company's available-for-sale securities as of December 31, 2017 are shown below. Actual maturities may differ from contractual maturities because the issuers of the securities may have the right to prepay obligations without prepayment penalties (in thousands):

|  | December 31, 2017     |                   |
|--|-----------------------|-------------------|
|  | <u>Amortized Cost</u> | <u>Fair Value</u> |
| Within 1 year . . . . .                  | \$23,812              | \$23,874          |
| After 1 year through 5 years . . . . .   | —                     | —                 |
| After 5 years through 10 years . . . . . | —                     | —                 |
| After 10 years . . . . .                 | <u>5,057</u>          | <u>5,718</u>      |
| Total . . . . .                          | <u>\$28,869</u>       | <u>\$29,592</u>   |

*Equity method investments* — ARRIS owns certain investments in limited liability companies and partnerships that are accounted for using the equity method as the Company has significant influence over operating and financial policies of the investee companies. These investments are recorded at \$22.0 million and \$22.7 million as of December 31, 2017 and 2016, respectively.

The following table summarizes the ownership structure and ownership percentage of the non-consolidated investments as of December 31, 2017, accounted for using the equity method.

| <u>Name of Investee</u>                                    | <u>Ownership Structure</u>    | <u>% Ownership</u> |
|--|-------------------------------|--------------------|
| MPEG LA . . . . .  | Limited Liability Company     | 8.4%               |
| Music Choice . . . . .                                     | Limited Liability Partnership | 18.2%              |
| Conditional Access Licensing (“CAL”) . . . . .             | Limited Liability Company     | 49.0%              |
| Combined Conditional Access Development (“CCAD”) . . . . . | Limited Liability Company     | 50.0%              |

ARRIS owns investments in two limited liability corporations whereby the investees were determined to be variable interest entities and ARRIS is not the primary beneficiary, as ARRIS does not have the power to direct the activities of the investee that most significantly impact its economic performance. The limited liability corporations are a licensing and a research and development company. The purpose of the limited liability corporations is to develop, deploy, license, support, and to gain market acceptance for certain technologies that reside in a cable plant or in a cable device. Subject to agreement on annual statements of work, the Company has provided to one of the ventures, engineering services per year approximating 20% to 30% of the approved venture budget. During 2017, the Company made funding contributions to the investment of \$15.6 million. No further funding is planned for 2018 and beyond.

*Cost method investments* — ARRIS holds cost method investments in certain private companies. Due to the fact the investments are in private companies, the Company is exempt from estimating the fair value on an interim and annual basis. It is impractical to estimate the fair value since the quoted market price is not available. Furthermore, the cost of obtaining an independent valuation appears excessive considering the materiality of the investments to the Company. However, ARRIS is required to estimate the fair value if there has been an identifiable event or change in circumstance that may have a significant adverse effect on the fair value of the investment.

*Other investments* — ARRIS holds investments in certain life insurance contracts. The Company determined the fair value to be the amount that could be realized under the insurance contract as of each reporting period. The changes in the fair value of these contracts are included in net income.

*Other-Than-Temporary Investment Impairments* — ARRIS evaluates its investments for any other-than-temporary impairment on a quarterly basis considering all available evidence, including changes in general market conditions, specific industry and individual entity data, the financial condition and the near-term prospects of the entity issuing the security, and the Company's ability and intent to hold the investment until recovery.

For the year ended December 31, 2017, ARRIS concluded that one private company had indicators of impairment, as the cost basis exceeded the fair value of the investment, resulting in other-than-temporary impairment charge of \$2.8 million. For the year ended December 31, 2016, the Company concluded that two private companies had indicators of impairment, as the cost basis exceeded the fair value of the investments, resulting in other-than-temporary impairment charges of \$12.3 million. These charges are reflected in the Consolidated Statements of Income.

Classification of securities as current or non-current is dependent upon management's intended holding period, the security's maturity date and liquidity consideration based on market conditions. If management intends to hold the securities for longer than one year as of the balance sheet date, they are classified as non-current.

#### **Note 7. Fair Value Measurements**

Fair value is based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. U.S GAAP establishes a fair value hierarchy that is based on the extent and level of judgment used to estimate the fair value of assets and liabilities. In order to increase consistency and comparability in fair value measurements, the FASB has established a fair value hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three broad levels. An asset or liability's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the measurement of its fair value. The three levels of input defined by U.S. GAAP are as follows:

Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities.

Level 2: Observable prices that are based on inputs not quoted on active markets, but corroborated by market data.

Level 3: Unobservable inputs are used when little or no market data is available.

The following table presents the Company's investment assets (excluding equity and cost method investments) and derivatives measured at fair value on a recurring basis as of December 31, 2017 and 2016 (in thousands):

|   | December 31, 2017 |          |         |          |
|---|-------------------|----------|---------|----------|
|   | Level 1           | Level 2  | Level 3 | Total    |
| Certificates of deposit (foreign) . . . . .                 | \$ —              | \$12,809 | \$—     | \$12,809 |
| Corporate bonds . . . . .                                   | —                 | 11,065   | —       | 11,065   |
| Corporate obligations . . . . .                             | —                 | 13       | —       | 13       |
| Money markets . . . . .                                     | 38                | —        | —       | 38       |
| Mutual funds . . . . .                                      | 79                | —        | —       | 79       |
| Other investments . . . . .                                 | —                 | 5,588    | —       | 5,588    |
| Interest rate derivatives — asset derivatives . . . . .     | —                 | 10,156   | —       | 10,156   |
| Interest rate derivatives — liability derivatives . . . . . | —                 | (4,024)  | —       | (4,024)  |
| Foreign currency contracts — asset position . . . . .       | —                 | 405      | —       | 405      |
| Foreign currency contracts — liability position . . . . .   | —                 | (8,802)  | —       | (8,802)  |

|   | December 31, 2016 |          |         |          |
|---|-------------------|----------|---------|----------|
|   | Level 1           | Level 2  | Level 3 | Total    |
| Certificates of deposit (foreign) . . . . .                 | \$ —              | \$87,372 | \$—     | \$87,372 |
| Corporate bonds . . . . .                                   | —                 | 34,133   | —       | 34,133   |
| Short-term bond fund . . . . .                              | 5,046             | —        | —       | 5,046    |
| Corporate obligations . . . . .                             | —                 | 3        | —       | 3        |
| Money markets . . . . .                                     | 54                | —        | —       | 54       |
| Mutual funds . . . . .                                      | 101               | —        | —       | 101      |
| Other investments . . . . .                                 | —                 | 4,235    | —       | 4,235    |
| Interest rate derivatives — asset derivatives . . . . .     | —                 | 7,860    | —       | 7,860    |
| Interest rate derivatives — liability derivatives . . . . . | —                 | (9,006)  | —       | (9,006)  |
| Foreign currency contracts — asset position . . . . .       | —                 | 7,369    | —       | 7,369    |
| Foreign currency contracts — liability position . . . . .   | —                 | (3,671)  | —       | (3,671)  |

All of the Company's short-term and long-term investments at December 31, 2017 are classified within Level 1 or Level 2 of the fair value hierarchy as they are valued using quoted market prices, market prices for similar securities, or alternative pricing sources with reasonable levels of price transparency. The types of instruments valued based on quoted market prices in active markets include the Company's investment in money market funds, mutual funds and municipal bonds. Such instruments are generally classified within Level 1 of the fair value hierarchy. The types of instruments valued based on other observable inputs include corporate obligations and bonds, commercial paper and certificates of deposit. Such instruments are classified within Level 2 of the fair value hierarchy.

In addition to the financial instruments included in the above table, certain nonfinancial assets and liabilities are to be measured at fair value on a nonrecurring basis in accordance with applicable authoritative guidance. This includes items such as nonfinancial assets and liabilities initially measured at fair value in a business combination (but not measured at fair value in subsequent periods) and nonfinancial long-lived asset groups measured at fair value for an impairment assessment. In general, nonfinancial assets including goodwill, other intangible assets and property and equipment are measured at fair value when there is an indication of impairment and are recorded at fair value only when any impairment is recognized. During the fourth quarter of 2017, the Company recorded partial impairments of goodwill and indefinite-lived tradenames of \$51.2 million and \$3.8 million, respectively, acquired in the ActiveVideo acquisition and included as part of the Cloud TV reporting unit, of which \$19.3 million is attributable to the noncontrolling interest. See Note 5 *Goodwill and Intangible Assets* of Notes to the Consolidated Financial Statements for further discussion.

The Company believes the principal amount of the debt as of December 31, 2017 approximated the fair value because of interest-bearing rates that are adjusted periodically, analysis of recent market conditions, prevailing interest rates, and other Company specific factors. The Company has classified the debt as a Level 2 item within the fair value hierarchy.

## **Note 8. Derivative Instruments and Hedging Activities**

### *Overview*

ARRIS is exposed to financial market risk, primarily related to foreign currency and interest rates. These exposures are actively monitored by management. To manage the volatility relating to certain of these exposures, the Company enters into a variety of derivative financial instruments. Management's objective is to reduce, where it is deemed appropriate to do so, fluctuations in earnings and cash flows associated with changes in foreign currency and interest rates. ARRIS's policies and practices are to use derivative financial instruments only to the extent necessary to manage exposures. ARRIS does not hold or issue derivative financial instruments for trading or speculative purposes.

The Company records all derivatives on the balance sheet at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative, whether the Company has elected to designate a derivative in a hedging relationship and apply hedge accounting and whether the hedging relationship has satisfied the criteria necessary to apply hedge accounting. Derivatives designated and qualifying as a hedge of the exposure to changes in the fair value of an asset, liability, or firm commitment attributable to a particular risk, such as interest rate risk, are considered fair value hedges. Derivatives designated and qualifying as a hedge of the exposure to variability in expected future cash flows, or other types of forecasted transactions, are considered cash flow hedges. Derivatives also may be designated as hedges of the foreign currency exposure of a net investment in a foreign operation. Hedge accounting generally provides for the matching of the timing of gain or loss recognition on the hedging instrument with the recognition of the changes in the fair value of the hedged asset or liability that are attributable to the hedged risk in a fair value hedge or the earnings effect of the hedged forecasted transactions in a cash flow hedge. The Company may enter into derivative contracts that are intended to economically hedge certain of its risk, even though hedge accounting does not apply or the Company elects not to apply hedge accounting. In accordance with the FASB's fair value measurement guidance, the Company made an accounting policy election to measure the credit risk of its derivative financial instruments that are subject to master netting agreements on a net basis by counterparty portfolio.

### **Cash flow hedges of interest rate risk**

The Company's senior secured credit facilities, which are comprised of (i) a "Term Loan A Facility", (ii) a "Term Loan A-1 Facility", (iii) a "Term Loan B-3 Facility", and (iv) a "Revolving Credit Facility", have variable interest rates based on LIBOR. (See Note 15 *Indebtedness* for additional details.) As a result of exposure to interest rate movements, during 2015, the Company entered into various interest rate swap arrangements, which effectively converted \$625.0 million of its variable-rate debt based on one-month LIBOR to an aggregate fixed rate of 2.25% plus a leverage-based margin. During 2016, due to additional exposure from the Term Loan A-1 Facility, the Company added additional interest rate swap arrangements which effectively converted \$450.0 million of the Company's variable-rate debt based on one-month LIBOR to an aggregate fixed rate of 0.98% plus a leverage-based margin. Total notional amount of the swaps as of December 31, 2017 was \$1,075.0 million and each swap matures on March 31, 2020. ARRIS has designated these swaps as cash flow hedges, and the objective of these hedges is to manage the variability of cash flows in the interest payments related to the portion of the variable-rate debt designated as being hedged.

The Company's objectives in using interest rate derivatives are to add stability to interest expense and to manage its exposure to interest rate movements. To accomplish this objective, the Company uses interest rate swaps as part of its interest rate risk management strategy. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed-rate payments over the life of the agreements without exchange of the underlying notional amount.



The effective portion of changes in the fair value of derivatives designated and that qualify as cash flow hedges is recorded in Accumulated Other Comprehensive Income and is subsequently reclassified into earnings in the period that the hedged forecasted transaction affects earnings. During 2017, such derivatives were used to hedge the variable cash flows associated with debt. The ineffective portion of the change in fair value of the derivatives is recognized directly in earnings. During the years ended December 31, 2017, 2016 and 2015 no expense has been recorded related to hedge ineffectiveness by the Company.

Amounts reported in accumulated other comprehensive income related to derivatives will be reclassified to interest expense as interest payments are made on the Company's variable-rate debt. Over the next 12 months, the Company estimates that an additional \$0.5 million may be reclassified as a decrease to interest expense.

The table below presents the impact of the Company's derivative financial instruments had on Consolidated Statement of Operations (in thousands):

|   | Location of Gain(Loss) Reclassified from AOCI into Income | Years Ended December 31, |         |            |
|---|---|--------------------------|---------|------------|
|   |   | 2017                     | 2016    | 2015       |
| Gain (loss) Recognized in OCI on Derivatives (Effective Portion) .....          | Interest expense  | \$5,587                  | \$2,103 | \$(13,256) |
| Amounts Reclassified from Accumulated OCI into Income (Effective Portion) ..... | Interest expense  | 1,663                    | 7,512   | 7,495      |

The following table indicates the location on the Consolidated Balance Sheets in which the Company's derivative assets and liabilities designated as hedging instruments have been recognized and the related fair values of those derivatives (in thousands):

|   | Balance Sheet Location       | December 31, 2017 | December 31, 2016 |
|---|------------------------------|-------------------|-------------------|
| Interest rate derivatives — asset derivatives .....     | Other current assets         | 3,590             | 222               |
| Interest rate derivatives — asset derivatives .....     | Other assets                 | 6,566             | 8,043             |
| Interest rate derivatives — liability derivatives ..... | Other accrued liabilities    | (3,053)           | (2,989)           |
| Interest rate derivatives — liability derivatives ..... | Other noncurrent liabilities | (971)             | (6,421)           |

### Credit-risk-related contingent features

Each of ARRIS's agreements with its derivative counterparties that contain a provision where the Company could be declared in default on its derivative obligations if repayment of the underlying indebtedness is accelerated by the lender due to the Company's default on the indebtedness. As of December 31, 2017, the fair value of derivatives in a net asset position, which includes accrued interest but excludes any adjustment for non-performance risk, related to these agreements was \$6.1 million. As of December 31, 2017, the Company has not posted any collateral related to these agreements nor has it required any of its counterparties to post collateral related to these or any other agreements.

### Non-designated hedges of foreign currency risk

The Company has U.S. dollar functional currency subsidiaries that bill certain international customers in their local currency and foreign functional currency entities that procure in U.S. dollars. ARRIS also has certain predictable expenditures for international operations in local currency. Additionally, certain intercompany transactions are denominated in foreign currencies and subject to revaluation. To mitigate the volatility related to fluctuations in the foreign exchange rates for certain exposures, ARRIS has entered into various foreign currency contracts. As of December 31, 2017, the Company had forward contracts with notional amounts totaling

70 million euros which mature throughout 2018, forward contracts with a total notional amount of 50 million Australian dollars which mature throughout 2018, forward contracts with notional amounts totaling 65 million Canadian dollars which mature throughout 2018, forward contracts with notional amounts totaling 70.0 million British pounds which mature throughout 2018, forward contracts with notional amounts totaling 656.9 million South African rand which mature throughout 2018 and 2019.

The Company's objectives in using foreign currency derivatives are to add stability to foreign currency gains and losses recorded as other expense (income) and to manage its exposure to foreign currency movements. To accomplish this objective, the Company uses foreign currency option and foreign currency forward contracts as part of its foreign currency risk management strategy. The Company's foreign currency derivative instruments economically hedge certain risk but are not designated as hedges, and accordingly, all changes in the fair value of the instruments are recognized as a loss (gain) on foreign currency in the Consolidated Statements of Income. The maximum time frame for ARRIS's derivatives is currently 15 months.

The following table indicates the location on the Consolidated Balance Sheets in which the Company's derivative assets and liabilities not designated as hedging instruments have been recognized and the related fair values of those derivatives (in thousands):

|   | <u>Balance Sheet Location</u> | <u>December 31, 2017</u> | <u>December 31, 2016</u> |
|---|-------------------------------|--------------------------|--------------------------|
| Foreign exchange contracts —<br>asset derivatives . . . . .     | Other current assets          | \$ 405                   | \$ 7,369                 |
| Foreign exchange contracts —<br>liability derivatives . . . . . | Other accrued liabilities     | (8,202)                  | (3,671)                  |
| Foreign exchange contracts —<br>liability derivatives . . . . . | Other noncurrent liabilities  | (600)                    | —                        |

The change in the fair values of ARRIS's derivatives not designated as hedging instruments recorded in the Consolidated Statements of Income were as follows (in thousands):

|                                      | <u>Statement of Operations Location</u> | <u>2017</u> | <u>2016</u> | <u>2015</u> |
|--------------------------------------|---|-------------|-------------|-------------|
| Foreign exchange contracts . . . . . | Loss on foreign currency                | \$25,339    | \$5,909     | \$7,597     |

**Note 9. Guarantees**

*Warranty*

ARRIS provides warranties of various lengths to customers based on the specific product and the terms of individual agreements. The Company provides for the estimated cost of product warranties based on historical trends, the embedded base of product in the field, failure rates, and repair costs at the time revenue is recognized. Expenses related to product defects and unusual product warranty problems are recorded in the period that the problem is identified. While the Company engages in extensive product quality programs and processes, including actively monitoring and evaluating the quality of its suppliers, the estimated warranty obligation could be affected by changes in ongoing product failure rates, material usage and service delivery costs incurred in correcting a product failure, as well as specific product failures outside of ARRIS's baseline experience. If actual product failure rates, material usage or service delivery costs differ from estimates, revisions (which could be material) would be recorded against the warranty liability.

The Company offers extended warranties and support service agreements on certain products. Revenue from these agreements is deferred at the time of the sale and recognized on a straight-line basis over the contract period. Costs of services performed under these types of contracts are charged to expense as incurred, which approximates the timing of the revenue stream.

Information regarding the changes in ARRIS’s aggregate product warranty liabilities for the years ending December 31, 2017 and 2016 were as follows (in thousands):

|   | <u>2017</u>      | <u>2016</u>      |
|---|------------------|------------------|
| Beginning balance . . . . .   | \$ 88,187        | \$ 49,027        |
| Warranty reserve at acquisition . . . . .                                   | 1,700            | 43,723           |
| Accruals related to warranties (including changes in assumptions) . . . . . | 36,379           | 51,947           |
| Settlements made (in cash or in kind) . . . . .                             | <u>(50,177)</u>  | <u>(56,510)</u>  |
| Ending balance . . . . .  | <u>\$ 76,089</u> | <u>\$ 88,187</u> |

**Note 10. Segment Information**

The “management approach” has been used to present the following segment information. This approach is based upon the way the management of the Company organizes segments for making operating decisions and assessing performance. Financial information is reported on the basis that it is used internally by the chief operating decision maker (“CODM”) for evaluating segment performance and deciding how to allocate resources to segments. The Company’s chief executive officer has been identified as the CODM.

The CODM manages the Company under three segments:

- **Customer Premises Equipment (“CPE”)** — The CPE segment’s product solutions include set-tops, gateways, and subscriber premises equipment that enable service providers to offer voice, video and high-speed data services to residential and business subscribers.
- **Network & Cloud (“N&C”)** — The N&C segment’s product solutions include cable modem termination system, video infrastructure, distribution and transmission equipment and cloud solutions that enable facility-based service providers to construct a state-of-the-art residential and metro distribution network. The portfolio also includes a full suite of global services that offer technical support, professional services and system integration offerings to enable solutions sales of ARRIS’s end-to-end product portfolio.
- **Enterprise Networks (“Enterprise”)** — The Enterprise Networks segment focuses on enabling constant, wireless and wired connectivity across complex and varied networking environments. It offers dedicated engineering, sales and marketing resources to serve customers across a spectrum of verticals—including hospitality, education, smart cities, government, venues, service providers and more.

These operating segments are determined based on the nature of the products and services offered. The measures that are used to assess the reportable segment’s operating performance are sales and direct contribution. Direct contribution is defined as gross margin less direct operating expense. The “Corporate and Unallocated Costs” category of expenses include corporate sales and marketing, home office general and administrative expenses, annual bonus and equity compensation. “Corporate and Unallocated Costs” also includes corporate sales and marketing for the CPE and N&C segments. Marketing and sales expenses related to the Enterprise segment are considered a direct operating expense for that segment and are not included in the “Corporate and Unallocated Costs.” These expenses are not included in the measure of segment direct contribution and as such are reported as “Corporate and Unallocated Costs” and are included in the reconciliation to income (loss) before income taxes. A measure of assets is not applicable, as segment assets are not regularly reviewed by the CODM for evaluating performance or allocating resources.

The tables below present information about the Company's reportable segments (in thousands):

|   | <u>2017</u>      | <u>2016</u>      | <u>2015</u>       |
|---|------------------|------------------|-------------------|
| <i>Net sales to external customers:</i>                 |                  |                  |                   |
| CPE .....   | \$4,475,670      | \$4,747,445      | \$3,136,585       |
| N&C .....   | 2,094,113        | 2,111,708        | 1,661,594         |
| Enterprise .....  | 45,749           | —                | —                 |
| Other .....   | (1,140)          | (30,035)         | 153               |
| Total .....   | <u>6,614,392</u> | <u>6,829,118</u> | <u>4,798,332</u>  |
| <i>Direct contribution:</i>                             |                  |                  |                   |
| CPE .....   | 497,986          | 684,744          | 548,840           |
| N&C .....   | 806,355          | 681,608          | 487,166           |
| Enterprise .....  | 6,094            | —                | —                 |
| Segment total .....                                     | <u>1,310,435</u> | <u>1,366,352</u> | <u>1,036,006</u>  |
| Corporate and unallocated costs .....                   | (658,659)        | (697,834)        | (568,336)         |
| Amortization of intangible assets .....                 | (375,407)        | (397,464)        | (227,440)         |
| Impairment of goodwill and intangible assets .....      | (55,000)         | (2,200)          | —                 |
| Integration, acquisition, restructuring and other ..... | (98,357)         | (158,137)        | (29,277)          |
| Operating income .....                                  | <u>123,012</u>   | <u>110,717</u>   | <u>210,953</u>    |
| Interest expense .....                                  | 87,088           | 79,817           | 70,936            |
| Loss on investments .....                               | 11,066           | 21,194           | 6,220             |
| Loss (gain) on foreign currency .....                   | 9,757            | (13,982)         | 20,761            |
| Interest income .....                                   | (7,975)          | (4,395)          | (2,379)           |
| Other expense (income), net .....                       | 1,873            | 3,991            | 8,362             |
| Income before income taxes .....                        | <u>\$ 21,203</u> | <u>\$ 24,092</u> | <u>\$ 107,053</u> |

For the years ended December 31, 2017, 2016 and 2015, the compositions of our corporate and unallocated costs that are reflected in the consolidated statement of operations were as follows (in thousands):

|  | <u>2017</u>      | <u>2016</u>      | <u>2015</u>      |
|--|------------------|------------------|------------------|
| <i>Corporate and unallocated costs:</i>            |                  |                  |                  |
| Cost of sales .....                                | \$ 90,791        | \$150,588        | \$ 56,311        |
| Selling, general and administrative expenses ..... | 389,753          | 375,747          | 349,993          |
| Research and development expenses .....            | 178,115          | 171,499          | 162,032          |
| Total .....  | <u>\$658,659</u> | <u>\$697,834</u> | <u>\$568,336</u> |

The following table summarizes the Company's net intangible assets and goodwill by reportable segment as of December 31, 2017 and 2016 (in thousands):

|                              | <u>CPE</u>  | <u>N&amp;C</u> | <u>Enterprise</u> | <u>Total</u> |
|------------------------------|-------------|----------------|-------------------|--------------|
| <u>December 31, 2017</u>     |             |                |                   |              |
| Goodwill .....               | \$1,386,680 | \$573,798      | \$318,034         | \$2,278,512  |
| Intangible assets, net ..... | 807,314     | 501,998        | 462,050           | 1,771,362    |
| <u>December 31, 2016</u>     |             |                |                   |              |
| Goodwill .....               | \$1,391,171 | \$624,998      | \$ —              | \$2,016,169  |
| Intangible assets, net ..... | 1,064,692   | 612,486        | —                 | 1,677,178    |

The following table summarizes the Company's revenues by products and services as of December 31, 2017, 2016 and 2015 (in thousands):

|                             | <u>2017</u>               | <u>2016</u>               | <u>2015</u>               |
|-----------------------------|---------------------------|---------------------------|---------------------------|
| <i>CPE:</i>                 |                           |                           |                           |
| Broadband CPE .....         | \$1,808,600               | \$1,683,491               | \$1,452,164               |
| Video CPE .....             | <u>2,667,070</u>          | <u>3,063,954</u>          | <u>1,684,421</u>          |
| Sub-total .....             | <u>4,475,670</u>          | <u>4,747,445</u>          | <u>3,136,585</u>          |
| <i>Network &amp; Cloud:</i> |                           |                           |                           |
| Networks .....              | 1,747,936                 | 1,789,097                 | 1,390,283                 |
| Software and services ..... | <u>346,177</u>            | <u>322,611</u>            | <u>271,311</u>            |
| Sub-total .....             | <u>2,094,113</u>          | <u>2,111,708</u>          | <u>1,661,594</u>          |
| <i>Enterprise Networks:</i> |                           |                           |                           |
| Enterprise Networks .....   | 45,749                    | —                         | —                         |
| <i>Other:</i>               |                           |                           |                           |
| Other .....                 | <u>(1,140)</u>            | <u>(30,035)</u>           | <u>153</u>                |
| Total net sales .....       | <u><u>\$6,614,392</u></u> | <u><u>\$6,829,118</u></u> | <u><u>\$4,798,332</u></u> |

The Company's two largest customers (including their affiliates, as applicable) are Charter and Comcast. Over the past year, certain customers' beneficial ownership may have changed as a result of mergers and acquisitions. Therefore, the revenue for ARRIS's customers for prior periods has been adjusted to include the affiliates under common control. A summary of sales to these customers for 2017, 2016 and 2015 is set forth below (in thousands, except percentages):

|                              | <u>Years ended December 31,</u> |                            |             |
|------------------------------|---------------------------------|----------------------------|-------------|
|                              | <u>2017</u>                     | <u>2016</u>                | <u>2015</u> |
| Charter and affiliates ..... | \$ 985,237                      | \$1,064,408 <sup>(1)</sup> | \$ 960,497  |
| % of sales .....             | 14.9%                           | 15.6%                      | 20.0%       |
| Comcast and affiliates ..... | \$1,479,415                     | \$1,637,519 <sup>(1)</sup> | \$1,007,376 |
| % of sales .....             | 22.4%                           | 24.0%                      | 21.0%       |

(1) Revenues were reduced \$30.2 million in 2016, as a result of warrants held by Charter and Comcast that are intended to incent additional purchases from them. (see Note 17 *Warrants* for additional information).

ARRIS sells its products primarily in the United States. The Company's international revenue is generated from Asia Pacific, Canada, Europe and Latin America. Sales to customers outside of United States were approx-

imately 34.2%, 28.1% and 28.8% of total sales for the years ended December 31, 2017, 2016 and 2015, respectively. International sales for the years ended December 31, 2017, 2016 and 2015 were as follows (in thousands):

|                               | <b>For the Years Ended December 31,</b> |                           |                           |
|-------------------------------|---|---------------------------|---------------------------|
|                               | <u>2017</u>                             | <u>2016</u>               | <u>2015</u>               |
| Domestic — U.S. ....          | \$4,351,843                             | \$4,909,698               | \$3,418,583               |
| International                 |   |                           |                           |
| Americas, excluding U.S. .... | 1,080,456                               | 982,769                   | 880,581                   |
| Asia Pacific ....             | 374,772                                 | 291,504                   | 142,893                   |
| EMEA ....                     | <u>807,321</u>                          | <u>645,147</u>            | <u>356,275</u>            |
| Total international ....      | <u>\$2,262,549</u>                      | <u>\$1,919,420</u>        | <u>\$1,379,749</u>        |
| Total sales ....              | <u><u>\$6,614,392</u></u>               | <u><u>\$6,829,118</u></u> | <u><u>\$4,798,332</u></u> |

The following table summarizes plant and equipment assets by geographic region as of December 31, 2017 and 2016 (in thousands):

|   | <b>For the Years Ended<br/>December 31,</b> |                         |
|---|---|-------------------------|
|   | <u>2017</u>                                 | <u>2016</u>             |
| Domestic — U.S. ....                            | \$250,866                                   | \$220,397               |
| International                                   |   |                         |
| Americas, excluding U.S. ....                   | 12,746                                      | 12,838                  |
| Asia Pacific ....                               | 85,236                                      | 81,655                  |
| EMEA ....                                       | <u>23,619</u>                               | <u>38,487</u>           |
| Total international ....                        | <u>\$121,601</u>                            | <u>\$132,980</u>        |
| Total property, plant and equipment assets .... | <u><u>\$372,467</u></u>                     | <u><u>\$353,377</u></u> |

#### **Note 11. Inventories**

The components of inventory are as follows, net of reserves (in thousands):

|                             | <b>December 31,</b>     |                         |
|-----------------------------|-------------------------|-------------------------|
|                             | <u>2017</u>             | <u>2016</u>             |
| Raw material ....           | \$149,328               | \$ 86,243               |
| Work in process ....        | 5,416                   | 3,877                   |
| Finished goods ....         | <u>670,467</u>          | <u>461,421</u>          |
| Total inventories, net .... | <u><u>\$825,211</u></u> | <u><u>\$551,541</u></u> |

## Note 12. Property, Plant and Equipment

Property, plant and equipment, at cost, consisted of the following (in thousands):

|  | December 31,      |                   |
|--|-------------------|-------------------|
|  | 2017              | 2016              |
| Land .....                                     | \$ 68,562         | \$ 68,562         |
| Buildings and leasehold improvements .....     | 205,534           | 163,333           |
| Machinery and equipment .....                  | 466,325           | 440,955           |
|  | <u>740,421</u>    | <u>672,850</u>    |
| Less: Accumulated depreciation .....           | (367,954)         | (319,473)         |
| Total property, plant and equipment, net ..... | <u>\$ 372,467</u> | <u>\$ 353,377</u> |

## Note 13. Restructuring, Acquisition and Integration

### *Restructuring*

The following table represents a summary of and changes to the restructuring accrual, which is primarily composed of accrued severance and other employee costs and contractual obligations that related to excess leased facilities (in thousands):

|                                    | Employee<br>severance &<br>termination<br>benefits | Contractual<br>obligations<br>and other | Write-off<br>of property,<br>plant and<br>equipment | Total            |
|------------------------------------|--|---|---|------------------|
| Balance at December 31, 2015 ..... | \$ 3   | \$ 87                                   | \$ —  | \$ 90            |
| Restructuring charges .....        | 92,246   | 3,379                                   | 716   | 96,341           |
| Cash payments / adjustments .....  | (64,363)   | (1,223)                                 | —   | (65,586)         |
| Non-cash expense .....             | —  | —                                       | (716)   | (716)            |
| Balance at December 31, 2016 ..... | <u>\$ 27,886</u>                                   | <u>\$ 2,243</u>                         | <u>\$ —</u>   | <u>\$ 30,129</u> |
| Restructuring charges .....        | 13,346   | 5,742                                   | 1,842   | 20,930           |
| Cash payments / adjustments .....  | (35,955)   | (4,683)                                 | —   | (40,638)         |
| Non-cash expense .....             | (898)  | —                                       | (1,842)   | (2,740)          |
| Balance at December 31, 2017 ..... | <u>\$ 4,379</u>                                    | <u>\$ 3,302</u>                         | <u>\$ —</u>   | <u>\$ 7,681</u>  |

**Employee severance and termination benefits** — In 2017, ARRIS recorded restructuring charges of \$13.3 million related to severance and employee termination benefits for 195 employees. This initiative affected all segments. The liability for the plan is expected to be paid by the first half of 2018.

In first quarter of 2016, ARRIS completed its acquisition of Pace. ARRIS initiated restructuring plans as a result of the acquisition that focused on the rationalization of personnel, facilities and systems across the ARRIS organization. The cost recorded during 2016 was approximately \$96.3 million. The 2016 restructuring plan affected approximately 1,545 positions across the Company. The liability for the plan is expected to be settled by the first half of 2018.

The amount is included in the Consolidated Statement of Operations in the line item titled “Integration, acquisition, restructuring and other costs”.

**Contractual obligations** — ARRIS has restructuring accruals representing contractual obligations that relate to excess leased facilities. A liability for such costs is recognized and measured initially at fair value on the cease-use date based on remaining lease rentals, adjusted for the effects of any prepaid or deferred items recog-

nized, reduced by the estimated sublease rentals that could be reasonably obtained even if it is not the intent to sublease. The fair value of these liabilities is based on a net present value model using a credit-adjusted risk-free rate. The liability will be paid out over the remainder of the leased properties' terms, which continue through 2021. Actual sublease terms may differ from the estimates originally made by the Company. Any future changes in the estimates or in the actual sublease income could require future adjustments to the liabilities, which would impact net income in the period the adjustment is recorded. During 2017, the Company exited three facilities and recorded a charge of \$5.7 million.

**Write-off of property, plant and equipment** — As part of the restructuring plan initiated as a result of the Pace combination, the Company recorded a restructuring charge of \$1.8 million related to the write-off of property, plant and equipment associated with a closure of a facility. This restructuring plan was related to the Corporate segment.

**Acquisition**

Acquisition expenses were approximately \$74.5 million, \$29.0 million and \$25.8 million for the years ended December 31, 2017, 2016 and 2015, respectively. These expenses in 2017 primarily related to the acquisition of Ruckus Networks and include \$61.5 million relates to the cash settlement of stock-based awards held by transferring employees, as well as banker and other fees.

**Integration**

Integration expenses were approximately \$2.9 million, \$24.2 million and \$1.6 million for the years ended December 31, 2017, 2016 and 2015, respectively. The expense was related to outside services and other integration related activities following the Pace combination.

**Note 14. Lease Financing Obligation**

**Sale-leaseback of San Diego Office Complex:**

In 2015, the Company sold its San Diego office complex consisting of land and buildings with a net book value of \$71.0 million, for total consideration of \$85.5 million. The Company concurrently entered into a leaseback arrangement for two buildings on the San Diego campus (“Building 1” and “Building 2”) with an initial leaseback term of ten years for Building 1 and a maximum term of one year for Building 2. The Company determined that the sale-leaseback of Building 1 did not qualify for sale-leaseback accounting due to continuing involvement that will exist for the 10-year lease term. Accordingly, the carrying amount of Building 1 will remain on the Company’s balance sheet and will be depreciated over its remaining useful life with the proceeds reflected as a financing obligation.

The Company concluded that Building 2 qualified for sale-leaseback accounting with the subsequent leaseback classified as an operating lease. A loss of \$5.3 million was recorded in Other expense (income), net on the Consolidated Statements of Income at the closing of the transaction in 2015.

At December 31, 2017, the minimum lease payments required on the financing obligation were as follows (in thousands):

|                                    |                 |
|------------------------------------|-----------------|
| 2018 .....                         | \$ 4,260        |
| 2019 .....                         | 4,388           |
| 2020 .....                         | 4,520           |
| 2021 .....                         | 4,655           |
| 2022 .....                         | 4,795           |
| Thereafter through 2025 .....      | <u>11,307</u>   |
| Total minimum lease payments ..... | <u>\$33,925</u> |



**Note 15. Indebtedness**

The following is a summary of indebtedness and lease financing obligations as of December 31, 2017 and 2016 (in thousands):

|  | <u>As of December 31, 2017</u> | <u>As of December 31, 2016</u> |
|--|--------------------------------|--------------------------------|
| Current liabilities:                                       |                                |                                |
| Term A loan .....  | \$ 19,550                      | \$ 49,500                      |
| Term A-1 loan .....  | 62,500                         | 40,000                         |
| Term B-3 loan .....  | 5,450                          | —                              |
| Lease finance obligation .....                             | <u>870</u>                     | <u>775</u>                     |
| Current obligations .....                                  | 88,370                         | 90,275                         |
| Current deferred financing fees and debt discount ..       | <u>(4,811)</u>                 | <u>(7,541)</u>                 |
|  | 83,559                         | 82,734                         |
| Noncurrent liabilities:                                    |                                |                                |
| Term A loan .....  | 366,562                        | 866,250                        |
| Term A-1 loan .....  | 1,171,875                      | 730,000                        |
| Term B loan .....  | —                              | 543,812                        |
| Term B-3 loan .....  | 535,463                        | —                              |
| Revolver .....   | —                              | —                              |
| Lease finance obligation .....                             | <u>61,032</u>                  | <u>57,902</u>                  |
| Noncurrent obligations .....                               | 2,134,932                      | 2,197,964                      |
| Noncurrent deferred financing fees and debt discount ..... | <u>(18,688)</u>                | <u>(17,955)</u>                |
|  | <u>2,116,244</u>               | <u>2,180,009</u>               |
| Total .....  | <u><u>\$2,199,803</u></u>      | <u><u>\$2,262,743</u></u>      |

**Senior Secured Credit Facilities**

On December 20, 2017, the Company entered into a Fourth Amendment (the “Fourth Amendment”) to its Amended and Restated Credit Facility dated June 18, 2015, as previously amended on December 14, 2015, April 26, 2017, and October 17, 2017 (the “Credit Agreement”). The Fourth Amendment provided for a new Term B Loan facility in the principal amount of \$542.3 million, the proceeds of which (along with cash on hand) were used to repay in full the existing Term B Loan facility. Under the terms of the Fourth Amendment, the maturity date of the new Term B Loan facility remains April 26, 2024, but the new Term B Loan facility has an interest rate of LIBOR (as defined in the Credit Agreement) plus a percentage ranging from 2.00% to 2.25% for Eurocurrency Loans (as defined in the Credit Agreement) or the prime rate (as determined in accordance with the Credit Agreement) plus a percentage ranging from 1.00% to 1.25% for Base Rate Loans (as defined in the Credit Agreement), in either case depending on ARRIS’s consolidated net leverage ratio. The Fourth Amendment also increased to \$500 million the amount of cash that can be used to offset indebtedness in the calculation of the consolidated net leverage ratio for purposes of determining the applicable interest rate. All other material terms of the Credit Agreement remained unchanged.

On October 17, 2017, the Company entered into the Third Amendment and Consent (the “Third Amendment”) to the Credit Agreement. Pursuant to the Third Amendment, ARRIS (i) incurred “Refinancing Term A Loans” of \$391 million, (ii) incurred “Refinancing Term A-1 Loans” of \$1,250 million, and (iii) obtained a “Refinancing Revolving Credit Facility” of \$500 million, the proceeds of which were used to refinance in full the existing Term A Loans, the existing Term A-1 Loans and the existing Revolving Credit Loans outstanding under the Credit Agreement immediately prior to the effectiveness of the Third Amendment. The existing Term B Loans were not refinanced and remain outstanding.

The Third Amendment extended the maturity date of the Term A Loans and the Revolving Credit Facility to October 17, 2022. Pursuant to the Third Amendment, the Company is subject to a minimum consolidated interest coverage ratio test, which is unchanged from the Credit Agreement. In addition, the Company is subject to a maximum consolidated net leverage ratio test of not more than 4.0:1.0, subject to a step-down to 3.75:1.00 commencing with the fiscal quarter ending March 31, 2019. The amount of unrestricted cash used to offset indebtedness in the calculation of the consolidated net leverage ratio was also increased from \$200 million to \$500 million. The interest rates under the Third Amendment were not changed.

On April 26, 2017, ARRIS entered into a Second Amendment (the “Second Amendment”) to the Credit Agreement. The Second Amendment provided for a new Term B Loan facility in the principal amount of \$545 million, the proceeds of which (along with cash on hand) were used to repay the existing Term B Loan facility. Under the terms of the Second Amendment, the new Term B-2 Loan has a maturity date of April 2024 and an interest rate of LIBOR plus a percentage ranging from 2.25% to 2.50% for Eurocurrency Rate Loans (as defined in the Credit Agreement), or the prime rate plus a percentage ranging from 1.25% to 1.50% for Base Rate Loans (as defined in the Credit Agreement), in either case depending on the Company’s consolidated net leverage ratio.

In connection with the Amendments in 2017, the Company paid and capitalized approximately \$1.4 million of financing fees and \$4.5 million of original issuance discount. In addition, the Company expensed approximately \$4.5 million of debt issuance costs and wrote off approximately \$1.3 million of existing debt issuance costs associated with certain lenders who were not party to the credit facility, which were included as interest expense in the Consolidated Statements of Income for the year ended December 31, 2017.

Interest rates on borrowings under the senior secured credit facilities are set forth in the table below.

|  | <u>Rate</u>    | <u>As of December 31, 2017</u> |
|--|----------------|--------------------------------|
| Term Loan A . . . . .                              | LIBOR + 1.75 % | 3.32%                          |
| Term Loan A-1 . . . . .                            | LIBOR + 1.75 % | 3.32%                          |
| Term Loan B-3 . . . . .                            | LIBOR + 2.25 % | 3.82%                          |
| Revolving Credit Facility <sup>(1)</sup> . . . . . | LIBOR + 1.75 % | Not Applicable                 |

(1) Includes unused commitment fee of 0.30% and letter of credit fee of 1.75% not reflected in interest rate above.

The Credit Agreement provides for adjustments to the interest rates paid on the Term Loan A, Term Loan A-1, Term Loan B-3 and Revolving Credit Facility based upon the achievement of certain leverage ratios.

Borrowings under the senior secured credit facilities are secured by first priority liens on substantially all of the assets of ARRIS and certain of its present and future subsidiaries who are or become parties to, or guarantors under, the Credit Agreement governing the senior secured credit facilities. The Credit Agreement provides terms for mandatory prepayments and optional prepayments and commitment reductions. The Credit Agreement also includes events of default, which are customary for facilities of this type (with customary grace periods, as applicable), including provisions under which, upon the occurrence of an event of default, all amounts outstanding under the credit facilities may be accelerated. The Credit Agreement contains usual and customary limitations on indebtedness, liens, restricted payments, acquisitions and asset sales in the form of affirmative, negative and financial covenants, which are customary for financings of this type, including the maintenance of a minimum interest coverage ratio and a maximum leverage ratio. As of December 31, 2017, ARRIS was in compliance with all covenants under the Credit Agreement.

During 2017, the Company made mandatory payments of approximately \$91.7 million related to the senior secured credit facilities.

### ***Account Receivable Financing Program***

In connection with the Pace combination on January 4, 2016, ARRIS assumed an accounts receivable financing program which was entered into by Pace on June 30, 2015. Under this program, the Company assigned trade receivables on a revolving basis of up to \$50 million to the lender and the lender advances 95% of the receivable value to the Company. The remaining 5% is remitted to ARRIS upon receipt of cash from the customer.

The accounts receivable financing program was accounted for as secured borrowings and amounts outstanding were included in the current portion of long-term debt on the consolidated balance sheet. The Company paid certain transaction fees and interest of 1.23% on the outstanding balance in connection with this program.

As of December 31, 2016, there is no outstanding balance under this program and the program was terminated as of June 30, 2017.

### ***Other***

As of December 31, 2017, the scheduled maturities of the contractual debt obligations are as follows (in thousands):

|                  |           |
|------------------|-----------|
| 2018 .....       | \$ 87,500 |
| 2019 .....       | 87,500    |
| 2020 .....       | 87,500    |
| 2021 .....       | 87,500    |
| 2022 .....       | 1,297,737 |
| Thereafter ..... | 513,663   |

### **Note 16. Earnings Per Share**

The following is a reconciliation of the numerators and denominators of the basic and diluted earnings per share computations for the periods indicated (in thousands, except per share data):

|  | <b>For the Years Ended December 31,</b> |                  |                  |
|--|---|------------------|------------------|
|  | <b>2017</b>                             | <b>2016</b>      | <b>2015</b>      |
| Basic:   |   |                  |                  |
| Net income attributable to ARRIS International plc. .... | <u>\$ 92,027</u>                        | <u>\$ 18,100</u> | <u>\$ 92,181</u> |
| Weighted average shares outstanding .....                | <u>187,133</u>                          | <u>190,701</u>   | <u>146,388</u>   |
| Basic earnings per share .....                           | <u>\$ 0.49</u>                          | <u>\$ 0.09</u>   | <u>\$ 0.63</u>   |
| Diluted:   |   |                  |                  |
| Net income attributable to ARRIS International plc. .... | <u>\$ 92,027</u>                        | <u>\$ 18,100</u> | <u>\$ 92,181</u> |
| Weighted average shares outstanding .....                | <u>187,133</u>                          | <u>190,701</u>   | <u>146,388</u>   |
| Net effect of dilutive shares .....                      | <u>2,483</u>                            | <u>1,484</u>     | <u>2,971</u>     |
| Total .....  | <u>189,616</u>                          | <u>192,185</u>   | <u>149,359</u>   |
| Diluted earnings per share .....                         | <u>\$ 0.49</u>                          | <u>\$ 0.09</u>   | <u>\$ 0.62</u>   |

Potential dilutive shares include stock options, unvested restricted and performance awards and warrants.

For the year ended December 31, 2017, 2016 and 2015, approximately 1.1 million, 0.9 thousand and 6.8 million of the equity-based awards, respectively, were excluded from the computation of diluted earnings per share because their effect would have been anti-dilutive. These exclusions are made if the exercise price of these equity-based awards is in excess of the average market price of the shares for the period, or if the Company has net losses, both of which have an anti-dilutive effect.

During the twelve months ended December 31, 2017, the Company issued 2.6 million shares of its ordinary shares related to the vesting of restricted stock units, as compared to 2.3 million shares for the twelve months ended December 31, 2016.

The warrants have a dilutive effect in those periods in which the average market price of the shares exceeds the current effective exercise price (under the treasury stock method), and are not subject to performance conditions. During the fourth quarter of 2016, approximately 2.2 million warrants vested based on the amount of purchases of products and services by the customer from the Company. There was no vesting in 2017. The dilutive effect of these vested shares was immaterial.

In connection with the Pace combination in 2016, ARRIS issued approximately 47.7 million ordinary shares as part of the purchase consideration. The fair value of the 47.7 million shares issued, \$1,434.7 million, was determined based on the conversion of each of Pace's shares and equity awards outstanding at a conversion rate of 0.1455 with a value of \$30.08 at January 4, 2016, which represents the opening price of the Company's shares at the date of Pace combination.

The Company has not paid cash dividends on its stock since its inception. Any future determination to pay dividends will be at the discretion of the Board of Directors and will be dependent on then-existing conditions, including the Company's financial condition, results of operations, capital requirements, contractual and legal restrictions, business prospects and other factors that the Board considers relevant. The Credit Agreement contains restrictions on the Company's ability to pay dividends on its ordinary shares.

#### **Note 17. Warrants**

During 2016, the Company entered into two separate Warrant and Registration Rights Agreements (the "Warrants") with certain customers pursuant to which those customers may purchase up to 14.0 million of ARRIS's ordinary shares, (subject to adjustment in accordance with the terms of the Warrants, the "Shares").

The Warrants will vest in tranches based on the amount of purchases of products and services by the customer from the Company. At December 31, 2017, approximately 2.2 million Warrants were vested and outstanding, with a weighted average exercise price of \$24.56, which vested based on the amount of purchases of products and services by the customers from the Company in 2016.

The ordinary shares issuable under our outstanding Warrant program with a customer, based on achieving certain purchase levels in 2018, are between 1.0 million and 2.5 million at an exercise price for the warrants of \$26.14.

For Warrants, other than those issuable in 2018, the exercise price per Share was established based upon the average volume-weighted price of ARRIS's ordinary shares on NASDAQ for the 10-day trading period preceding the date of the Warrants.

For Warrants issuable in 2018, the exercise price was set based on the volume-weighted price for the 10-day trading period preceding January 1, 2018.

The Warrants provide for net Share settlement that, if elected by the holders, will reduce the number of Shares issued upon exercise to reflect net settlement of the exercise price. Customers' may also request cash settlement of the Warrants upon exercise in lieu of issuing Shares, however, such cash election is at the discretion of ARRIS. The Warrants will expire by September 30, 2023.

The Warrants provide for certain adjustments that may be made to the exercise price and the number of Shares issuable upon exercise due to customary anti-dilution provisions based on future corporate events. In addition, in connection with any consolidation, merger or similar extraordinary event involving the Company, the Warrants will be deemed to represent the right to receive, upon exercise, the same consideration received by the holders of the Company's ordinary shares in connection with such transaction. Upon a change of control of ARRIS or if ARRIS materially breaches its applicable agreements with customers (and such breach is not cured pursuant to the terms of the agreements), the Warrants will immediately vest for the minimum threshold of Shares that would otherwise be issuable.

ARRIS has also agreed, if requested by the holders, to register the Shares issuable upon exercise of the Warrants under the Securities Act of 1933, as amended (the “Securities Act”) and has also granted “piggyback” registration rights in the event ARRIS files a registration statement with the U.S. Securities and Exchange Commission under the Securities Act covering its equity securities, subject to the terms and conditions included in the Warrants.

Because the Warrants contain performance criteria, which includes aggregate purchase levels and product mix, under which customers must achieve for the Warrants to vest, as detailed above, the final measurement date for the Warrants is the date on which the Warrants vest. Prior to the final measurement, when achievement of the performance criteria has been deemed probable, the estimated fair value of Warrants is being recorded as a reduction to net sales based on the projected number of Warrants expected to vest, the proportion of purchases by customers and its affiliates within the period relative to the aggregate purchase levels required for the Warrants to vest and the then-current fair value of the related Warrants. To the extent that projections change in the future as to the number of Warrants that will vest, as well as changes in the fair market value of the Warrants, a cumulative catch-up adjustment will be recorded in the period in which the estimates change.

The fair value of the Warrants is determined using the Black-Scholes option pricing model. The assumptions utilized in the Black-Scholes model include the risk-free interest rate, expected volatility, and expected life in years. The risk-free interest rate over the expected life is equal to the prevailing U.S. Treasury note rate over the same period. Expected volatility is determined utilizing historical volatility over a period of time equal to the expected life of the warrant. Expected life is equal to the remaining contractual term of the warrant. The dividend yield is assumed to be zero since we have not historically declared dividends and do not have any plans to declare dividends in the future.

For the year ended December 31, 2017 and 2016, ARRIS recorded zero and \$30.2 million, respectively, as a reduction to net sales in connection with Warrants. This transaction is considered an equity contract, and is classified as such.

**Note 18. Income Taxes**

Income (loss) before income taxes (in thousands):

|                     | <u>Years Ended December 31,</u> |                  |                  |
|---------------------|---------------------------------|------------------|------------------|
|                     | <u>2017</u>                     | <u>2016</u>      | <u>2015</u>      |
| U.K. ....           | \$ (64,177)                     | \$ (36,300)      | \$ (5,321)       |
| U.S. ....           | (159,951)                       | (149,605)        | 47,063           |
| Other Foreign ..... | 245,331                         | 209,997          | 65,311           |
|                     | <u>\$ 21,203</u>                | <u>\$ 24,092</u> | <u>\$107,053</u> |

Income tax expense (benefit) consisted of the following (in thousands):

|                                    | Years Ended December 31, |                  |                  |
|------------------------------------|--------------------------|------------------|------------------|
|                                    | 2017                     | 2016             | 2015             |
| Current — U.K. ....                | \$ 667                   | \$ 81,822        | \$ 559           |
| U.S. ....                          | 3,530                    | 47,025           | 2,141            |
| Other Foreign ....                 | 25,347                   | 31,552           | 14,476           |
|                                    | <u>29,544</u>            | <u>160,399</u>   | <u>17,176</u>    |
| Deferred — U.K. ....               | (22,254)                 | (23,177)         | (30)             |
| U.S. ....                          | (49,671)                 | (105,735)        | 5,119            |
| Other Foreign ....                 | (2,540)                  | (16,356)         | 329              |
|                                    | <u>(74,465)</u>          | <u>(145,268)</u> | <u>5,418</u>     |
| Income tax expense (benefit) ..... | <u>\$ (44,921)</u>       | <u>\$ 15,131</u> | <u>\$ 22,594</u> |

A reconciliation of the U.K. statutory income tax rate of 19.25% for 2017 and 20.00% for 2016 and the U.S. federal statutory income tax rate of 35.00% for 2015 and the effective income tax rates is as follows:

|  | Years Ended December 31, |              |              |
|--|--------------------------|--------------|--------------|
|  | 2017                     | 2016         | 2015         |
| Statutory income tax rate .....                  | 19.25%                   | 20.00%       | 35.00%       |
| Effects of:                                      |                          |              |              |
| State income taxes, net of federal benefit ..... | 11.0                     | (16.6)       | 5.2          |
| Acquired deferred tax assets .....               | —                        | —            | 5.8          |
| U.S. domestic manufacturing deduction .....      | (0.9)                    | (12.0)       | —            |
| Facilitative transaction costs .....             | 54.2                     | 22.0         | —            |
| Research and development tax credits .....       | (119.7)                  | (90.6)       | (25.1)       |
| Withholding taxes (U.K. entities) .....          | 12.4                     | 245.5        | —            |
| U.K. stamp duty .....                            | —                        | 9.4          | —            |
| Subpart F income .....                           | —                        | 4.0          | 4.8          |
| Changes in valuation allowance .....             | 35.1                     | 6.0          | (26.6)       |
| Foreign tax credits .....                        | 29.5                     | (14.0)       | (20.7)       |
| Non-deductible officer compensation .....        | 4.9                      | —            | 5.3          |
| Non-U.S. tax rate differential .....             | —                        | —            | (5.0)        |
| Non-U.K. tax rate differential .....             | 26.1                     | (50.9)       | —            |
| Benefit of other foreign tax regimes .....       | (170.6)                  | (135.4)      | —            |
| Recapture of dual consolidated losses .....      | —                        | —            | 1.1          |
| Taiwan gain .....                                | —                        | —            | 34.3         |
| Change in tax rate .....                         | (105.0)                  | —            | —            |
| Uncertain tax positions .....                    | (13.1)                   | 88.9         | (1.7)        |
| Other, net .....                                 | 5.0                      | (13.5)       | 8.7          |
|  | <u>(211.85)%</u>         | <u>62.8%</u> | <u>21.1%</u> |

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the “Act”) was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, a one-time transition tax

on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017, a new alternative U.S. tax on certain Base Erosion Anti-Avoidance (BEAT) payments from a U.S. company to any foreign related party, a new U.S. tax on certain off-shore earnings referred to as Global Intangible Low-Taxed Income (GILTI), additional limitations on certain executive compensation, and limitations on interest deductions.

The Company was required to recognize the effect of the tax law changes in the period of enactment, such as determining the transition tax, remeasuring its U.S. deferred tax assets and liabilities as well as reassessing the realizability of its deferred tax assets. The Company has calculated its best estimate of the impact of the Act in its year end income tax provision in accordance with its understanding of the Act and guidance available as of the date of this filing and as a result has recorded (\$22.5) million as an income tax benefit in the fourth quarter of 2017, the period in which the legislation was enacted. The provisional amount related to the remeasurement of certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future was (\$22.3) million. The provisional amount related to the one-time transition tax on the mandatory deemed repatriation of foreign earnings was (\$0.2) million based on cumulative foreign earnings of \$32.4 million.

On December 22, 2017, Staff Accounting Bulletin No. 118 (“SAB 118”) was issued to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Act. SAB 118 allows us to record these provisional amounts during a measurement period not to extend beyond one year of the enactment date. In accordance with SAB 118, the Company has determined that the (\$22.3) million of the deferred tax benefit recorded in connection with the remeasurement of certain deferred tax assets and liabilities and the (\$0.2) million of current tax benefit recorded in connection with the transition tax on the mandatory deemed repatriation of foreign earnings was a provisional amount and a reasonable estimate at December 31, 2017. Since the Act was passed late in the fourth quarter of 2017, and ongoing guidance and accounting interpretation are expected over the next 12 months, we consider the accounting for the transition tax, deferred tax re-measurements, and other items to be incomplete due to additional work necessary to (1) do a more detailed analysis of historical foreign earnings as well as potential correlative adjustments; (2) determine re-measurement of any changes to deferred tax assets and liabilities associated with any acquisition accounting adjustments for fair value adjustments made within the acquisition accounting measurement period; (3) assess any forthcoming guidance; and (4) finalize our ongoing analysis of final year-end data and tax positions. Any subsequent adjustment to these amounts will be recorded to tax expense in the quarter of 2018 when the analysis is complete. We expect to complete our analysis within the measurement period in accordance with SAB 118.

Deferred income taxes reflect the net tax effects of temporary differences between carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of ARRIS' net deferred income tax assets (liabilities) were as follows (in thousands):

|  | December 31,     |                  |
|--|------------------|------------------|
|  | 2017             | 2016             |
| Deferred income tax assets                 |                  |                  |
| Inventory costs                            | \$ 29,453        | \$ 63,756        |
| Property, plant and equipment              | —                | 2,789            |
| Accrued employee benefits                  | 34,472           | 41,246           |
| Accrued operating expenses                 | 24,904           | 42,544           |
| Reserves                                   | 16,434           | 26,731           |
| Investments                                | 8,796            | 667              |
| Loss carryforwards                         | 91,832           | 67,645           |
| Research and development and other credits | 164,841          | 118,113          |
| Capitalized research and development       | 83,224           | 177,594          |
| Other                                      | 17,379           | 50,171           |
| Total deferred income tax assets           | <u>471,335</u>   | <u>591,256</u>   |
| Deferred income tax liabilities:           |                  |                  |
| Property, plant and equipment              | (571)            | —                |
| Other liabilities                          | (7,190)          | (6,656)          |
| Goodwill and intangible assets             | (325,283)        | (451,600)        |
| Total deferred income tax liabilities      | <u>(333,044)</u> | <u>(458,256)</u> |
| Net deferred income tax assets             | 138,291          | 133,000          |
| Valuation allowance                        | (91,743)         | (57,772)         |
| Net deferred income tax assets             | <u>\$ 46,548</u> | <u>\$ 75,228</u> |

Significant attributes of ARRIS's deferred tax assets related to loss carryforwards and tax credits were as follows: (in thousands):

|   | 2017             | 2016             | Expiration            |
|---|------------------|------------------|-----------------------|
| Net operating loss carryforwards ("NOL"): |                  |                  |                       |
| U.S. federal <sup>(1)</sup>               | \$ 27,405        | \$ 30,009        | 2018 - 2037           |
| Georgia                                   | 15,948           | 4,737            | 2018 - 2037           |
| Pennsylvania                              | 17,687           | 13,899           | 2018 - 2037           |
| Other U.S. states                         | 12,236           | 4,495            | 2018 - 2037           |
| Non-U.S.                                  | 18,556           | 14,505           | Varies <sup>(2)</sup> |
| Total tax effected loss carryforward      | <u>\$ 91,832</u> | <u>\$ 67,645</u> |                       |
| Tax credit carryforwards:                 |                  |                  |                       |
| U.S. federal R&D                          | \$103,581        | \$ 84,711        | 2018 - 2037           |
| Other U.S. federal                        | 5,742            | 3,075            | 2027                  |
| California R&D                            | 34,208           | 13,782           | Indefinite            |
| Other U.S. states R&D                     | 21,310           | 16,545           | 2018 - 2037           |
| Total credit carryforward                 | <u>\$164,841</u> | <u>\$118,113</u> |                       |



- (1) Gross of tax effect U.S. Federal operating loss carryforwards are \$130.5 million for the year ended December 31, 2017 and \$85.7 million for the year ended December 31, 2016.
- (2) Canadian NOLs expire within 16 years and all other material foreign NOLs have an indefinite carryforward life.

ARRIS' ability to use U.S. federal, state, and other foreign net operating loss carryforwards to reduce future taxable income, or to use U.S. federal and state research and development tax credit and other carryforwards to reduce future income tax liabilities, is subject to the ability to generate sufficient taxable income of an appropriate characterization in the appropriate taxing jurisdictions. In some instance the utilization is also subject to restrictions attributable to change of ownership during prior tax years, as defined by appropriate law in the relevant taxing jurisdiction. These limitations, as noted above, prevent the Company from utilizing certain deferred tax assets and were considered in establishing our valuation allowances.

Significant components of ARRIS's valuation allowance were as follows (in thousands):

|                          | <u>2017</u>        | <u>2016</u>        |
|--------------------------|--------------------|--------------------|
| U.S. federal R&D .....   | \$ (8,578)         | \$ (8,064)         |
| Other U.S. federal ..... | (4,241)            | (16,792)           |
| Georgia NOL .....        | (15,008)           | (3,464)            |
| Pennsylvania NOL .....   | (10,068)           | (6,596)            |
| Other state NOL .....    | (8,988)            | (3,265)            |
| California R&D .....     | (18,773)           | —                  |
| Other state R&D .....    | (15,606)           | (10,438)           |
| Non-U.S. NOL .....       | <u>(10,481)</u>    | <u>(9,153)</u>     |
| Ending balance .....     | <u>\$ (91,743)</u> | <u>\$ (57,772)</u> |

A roll-forward analysis of our deferred tax asset valuation allowances is as follows (in thousands):

|                         | <u>For the Period ended December 31,</u> |                  |                  |
|-------------------------|--|------------------|------------------|
|                         | <u>2017</u>                              | <u>2016</u>      | <u>2015</u>      |
| Beginning balance ..... | \$ 57,772                                | \$ 87,788        | \$118,629        |
| Additions .....         | 52,680                                   | 17,973           | 3,312            |
| Reductions .....        | <u>(18,709)</u>                          | <u>(47,989)</u>  | <u>(34,153)</u>  |
| Ending balance .....    | <u>\$ 91,743</u>                         | <u>\$ 57,772</u> | <u>\$ 87,788</u> |

As of December 31, 2017, the Company did not provide additional income taxes or other non-U.K. withholding taxes on approximately \$18.6 million of unremitted earnings from its U.S. foreign subsidiaries directly or indirectly owned by U.S. shareholders, as such earnings are intended to be reinvested indefinitely outside of the U.S. Accordingly, should earnings of non-U.K. subsidiaries be distributed in the form of dividends (or otherwise), ARRIS may be subject to additional taxable income (in various jurisdictions) and non-U.K. withholding taxes. Determination of the amount of unrecognized tax liabilities related to these indefinitely reinvested and undistributed non-U.K. earnings is not practicable because of the complexities associated with this hypothetical calculation. Furthermore, the Company does not assert indefinite reinvestment on its earnings of foreign subsidiaries that are not directly or indirectly owned by a U.S. shareholder, and have recorded a deferred tax liability of \$2.7 million associated with the unremitted earnings of those subsidiaries.

In accordance with the Tax Cuts and Jobs Act of 2017 and Staff Accounting Bulletin No. 118 ("SAB 118"), the Company provided a provisional estimate for U.S. Federal income taxes of \$(0.2) million relating to certain unremitted earnings of non-U.S. subsidiaries owned by U.S. entities. With respect to impacts relating to U.S. state income taxes and non-U.S. withholding taxes, as well as the Company's determination with respect to its indefinite reinvestment assertion relating to investments in non-U.S. subsidiaries owned by the U.S., we consider

our accounting to be incomplete due to forthcoming guidance and our ongoing analysis of final year-end data and tax positions. We expect to complete our analysis with the measurement period in accordance with SAB 118.

Tabular Reconciliation of Unrecognized Tax Benefits (in thousands):

|   | <u>For the Period ended December 31,</u> |                  |                 |
|---|--|------------------|-----------------|
|   | <u>2017</u>                              | <u>2016</u>      | <u>2015</u>     |
| Beginning balance . . . . .   | \$128,053                                | \$ 49,919        | \$48,019        |
| Gross increases — tax positions in prior period . .                                       | 6,783                                    | 8,068            | 1,599           |
| Gross decreases — tax positions in prior period . .                                       | (21,409)                                 | (5,700)          | (2,185)         |
| Gross increases — current-period tax positions . . .                                      | 24,551                                   | 27,774           | 9,578           |
| Increases from acquired businesses . . . . .  | 39,420                                   | 60,796           | —               |
| Changes related to foreign currency translation<br>adjustment and remeasurement . . . . . | 1,545                                    | (1,087)          | —               |
| Decreases relating to settlements with taxing<br>authorities and other . . . . .          | (686)                                    | (3,933)          | (6,689)         |
| Decreases due to lapse of statute of limitations . . .                                    | (4,032)                                  | (7,784)          | (403)           |
| Ending balance . . . . .  | <u>\$174,225</u>                         | <u>\$128,053</u> | <u>\$49,919</u> |

The Company and its subsidiaries file income tax returns in the U.S. and U.K. jurisdictions, and various state and other foreign jurisdictions. As of December 31, 2017, the Company and its subsidiaries were under income tax audit in various jurisdictions including the United Kingdom, the United States, Hong Kong and various states and other foreign countries. ARRIS does not anticipate audit adjustments in excess of its current accrual for uncertain tax positions.

Liabilities related to uncertain tax positions inclusive of interest and penalties were \$178.2 million and \$137.2 million at December 31, 2017 and 2016, respectively. These liabilities at December 31, 2017 and 2016 were reduced by \$29.6 million and \$28.4 million, respectively, for offsetting benefits from the corresponding effects of potential transfer pricing adjustments, state income taxes and other unrecognized tax benefits. These offsetting benefits are recorded in other non-current assets and noncurrent deferred income taxes. The net result of \$148.6 million and \$108.7 million at December 31, 2017 and 2016, respectively, if recognized and released, would favorably affect tax expense.

Included in the net result of \$148.6 million as of December 31, 2017, is \$37.9 million of net acquired uncertain tax positions. This amount is fully indemnified and offset by a corresponding indemnification asset recorded in other non-current assets.

The Company reported approximately \$4.0 million and \$9.2 million, respectively, of interest and penalty accrual related to the anticipated payment of these potential tax liabilities as of December 31, 2017 and 2016. The Company classifies interest and penalties recognized on the liability for uncertain tax positions as income tax expense.

Based on information currently available, the Company anticipates that over the next twelve-month period, statutes of limitations may close and audit settlements will occur relating to existing unrecognized tax benefits of approximately \$15.6 million primarily arising from U.S. federal and state tax related items.

**Note 19. Stock-Based Compensation**

ARRIS grants stock awards under its 2016 Stock Incentive Plan (“SIP”). Upon approval of the 2016 SIP, all shares available for grant under the Company’s other existing stock incentive plans were no longer available. The Board of Directors approved the SIP and the prior plans to facilitate the retention and continued motivation of key employees, consultants and directors, and to align more closely their interests with those of the Company and its stockholders.

Awards under the SIP may be in the form of stock options, stock grants, stock units, restricted stock, stock appreciation rights, performance shares and units, and dividend equivalent rights. A total of 31,215,000 shares of

the Company's shares may be issued pursuant to the SIP. The SIP has been designed to allow for flexibility in the form of awards; however, awards denominated in ordinary shares other than stock options and stock appreciation rights will be counted against the SIP limit as 1.87 shares for every one share covered by such an award. The vesting requirements for issuance under the SIP may vary; however, awards generally are required to have a minimum three-year vesting period or term.

#### Restricted Stock (Non-Performance) Units

ARRIS grants restricted stock units to certain employees and its non-employee directors. The Company records a fixed compensation expense equal to the fair market value of the underlying shares of restricted stock unit granted on a straight-line basis over the requisite services period for the restricted shares. The Company applies an estimated forfeiture rate based upon historical rates. The fair value is the market price of the underlying ordinary shares on the date of grant.

In connection with the Pace combination, ARRIS accelerated the vesting of the time-based restricted shares that otherwise were scheduled to vest in 2016 for all of its executive officers and additional acceleration of time-based restricted shares for two executives that reached retirement age eligibility that otherwise would vest in 2017, 2018 and 2019.

The following table summarizes ARRIS's unvested restricted stock unit (excluding performance-related) transactions during the year ending December 31, 2017:

|                                     | <u>Ordinary Shares</u> | <u>Weighted Average Grant Date Fair Value</u> |
|-------------------------------------|------------------------|---|
| Unvested at December 31, 2016 ..... | 6,495,049              | \$24.04                                       |
| Granted .....                       | 3,793,925              | 27.54   |
| Vested .....                        | (2,571,398)            | 22.98   |
| Forfeited .....                     | <u>(357,232)</u>       | 24.77   |
| Unvested at December 31, 2017 ..... | <u>7,360,344</u>       | 26.18   |

#### Restricted Shares Units — Subject to Comparative Market Performance

ARRIS grants to certain employees restricted shares units, in which the number of shares to be issued is dependent upon the Company's total shareholder return as compared to the shareholder return of the NASDAQ composite over a three-year period. The number of shares which could potentially be issued ranges from zero to 200% of the target award. For the awards granted in 2015, the three-year measurement period ended on December 31, 2017. The Company's total shareholder return underperformed the NASDAQ composite over the three-year period, therefore resulted in zero achievement of the target award. The remaining grants outstanding that are subject to market performance are 672,530 shares at target; at 200% performance 1,345,060 would be issued. Compensation expense is recognized on a straight-line basis over the three-year measurement period and is based upon the fair market value of the shares expected to vest. The fair value of the restricted share units is estimated on the date of grant using a Monte Carlo Simulation model.

|                                   | <u>Market Performance Shares</u> | <u>Weighted Average Grant Date Fair Value</u> |
|-----------------------------------|----------------------------------|---|
| Unvested at December 31, 2016 ... | 1,640,410                        | \$29.52                                       |
| Granted .....                     | 524,350                          | 24.13   |
| Vested .....                      | (211,689)                        | 41.12   |
| Performance adjustment .....      | <u>(608,011)</u>                 | 35.85   |
| Unvested at December 31, 2017 ... | <u>1,345,060</u>                 | 22.73   |

The total fair value of restricted share units, including both non-performance and performance-related shares, that vested during 2017, 2016 and 2015 was \$76.1 million, \$52.3 million and \$118.3 million, respectively.

#### Employee Stock Purchase Plan (“ESPP”)

ARRIS offers an ESPP to certain employees. The plan complies with Section 423 of the U.S. Internal Revenue Code, which provides that employees will not be immediately taxed on the difference between the market price of the stock and a discounted purchase price if it meets certain requirements. Participants can request that up to 10% of their base compensation be applied toward the purchase of ARRIS ordinary shares under ARRIS’s ESPP. Purchases by any one participant are limited to \$25,000 (based upon the fair market value) in any one year. The exercise price is the lower of 85% of the fair market value of the ARRIS ordinary shares on either the first day of the purchase period or the last day of the purchase period. A plan provision which allows for the more favorable of two exercise prices is commonly referred to as a “look-back” feature. Any discount offered in excess of five percent generally will be considered compensatory and appropriately is recognized as compensation expense. Additionally, any ESPP offering a look-back feature is considered compensatory. ARRIS uses the Black-Scholes option valuation model to value shares issued under the ESPP. The valuation is comprised of two components; the 15% discount of a share of ordinary shares and 85% of a six-month option held (related to the look-back feature). The weighted average assumptions used to estimate the fair value of purchase rights granted under the ESPP for 2017, 2016 and 2015, were as follows: risk-free interest rates of 1.2%, 0.5% and 0.1%, respectively; a dividend yield of 0%; volatility factor of the expected market price of ARRIS’s stock of 0.28, 0.37, and 0.41, respectively; and a weighted average expected life of 0.5 year for each. The Company recorded stock compensation expense related to the ESPP of approximately \$4.8 million, \$4.6 million and \$5.1 million for the years ended December 31, 2017, 2016 and 2015, respectively.

#### Unrecognized Compensation Cost

As of December 31, 2017, there was approximately \$152.2 million of total unrecognized compensation cost related to unvested share-based awards granted under the Company’s incentive plans. This compensation cost is expected to be recognized over a weighted-average period of 2.8 years.

#### **Note 20. Employee Benefit Plans**

The Company sponsors a qualified and a non-qualified non-contributory defined benefit pension plan that covers certain U.S. and non-U.S. employees. As of January 1, 2000, the Company froze the U.S. qualified defined pension plan benefits for its participants. These participants elected to enroll in ARRIS’s enhanced 401(k) plan.

The U.S. pension plan benefit formulas generally provide for payments to retired employees based upon their length of service and compensation as defined in the plans. ARRIS’s investment policy is to fund the qualified plan as required by the Employee Retirement Income Security Act of 1974 (“ERISA”) and to the extent that such contributions are tax deductible.

ARRIS also provides a non-contributory defined benefit plan which cover employees in Taiwan. Any other benefit plans outside of the U.S. are not material to ARRIS either individually or in the aggregate.

No minimum funding contributions are required in 2017 under the Company’s U.S. defined benefit plan. For the year ended December 31, 2017, the Company made a voluntary minimum funding contribution of \$1.4 million to its U.S. defined benefit plan. The Company also made funding contributions of \$1.2 million related to our non-U.S. pension plan in 2017.

During 2016, in an effort to reduce future premiums and administrative fees as well as to increase our funded status in connection with our U.S. pension obligation, we made a voluntary funding contribution of \$5.0 million. The Company also made funding contributions of \$10.9 million related to our non-U.S. pension plan in 2016.

The Company has established a rabbi trust to fund the pension obligations of the Executive Chairman under his Supplemental Retirement Plan including the benefit under the Company’s non-qualified defined benefit plan.

In addition, the Company has established a rabbi trust for certain executive officers to fund the Company's pension liability to those officers under the non-qualified plan.

In late 2017, the Company commenced the process of terminating our U.S. defined benefit pension plan. Ultimate plan termination is subject to regulatory approval and to prevailing market conditions and other considerations. In the event approvals are received and the Company proceeds with effecting termination, settlement of the plan obligations is expected to occur in 2019. If the settlement occurs as expected in 2019, the plan's deferred actuarial losses remaining in accumulated other comprehensive income (loss) at that time will be recognized as expense.

The following table summarizes the change in projected benefit obligations, fair value of plan assets and the funded status of pension plan for the years ended December 31, 2017 and 2016 (in thousands):

|   | <u>U.S. Pension Plans</u> |                   | <u>Non-U.S. Pension Plans</u> |                   |
|---|---------------------------|-------------------|-------------------------------|-------------------|
|   | <u>2017</u>               | <u>2016</u>       | <u>2017</u>                   | <u>2016</u>       |
| Change in Projected Benefit Obligation:                 |                           |                   |                               |                   |
| Projected benefit obligation at beginning of year       | \$ 45,270                 | \$ 42,999         | \$ 35,706                     | \$ 36,372         |
| Service cost  | —                         | —                 | 664                           | 703               |
| Interest cost   | 1,733                     | 1,751             | 486                           | 614               |
| Actuarial loss  | 3,868                     | 2,024             | 121                           | 81                |
| Benefit payments  | (1,651)                   | (1,504)           | —                             | (1,041)           |
| Settlements   | —                         | —                 | (1,596)                       | (1,626)           |
| Foreign currency  | —                         | —                 | 2,755                         | 603               |
| Projected benefit obligation at end of year             | <u>\$ 49,220</u>          | <u>\$ 45,270</u>  | <u>\$ 38,136</u>              | <u>\$ 35,706</u>  |
| Change in Plan Assets:                                  |                           |                   |                               |                   |
| Fair value of plan assets at beginning of year          | \$ 18,510                 | \$ 13,516         | \$ 19,011                     | \$ 9,232          |
| Actual return on plan assets                            | 949                       | 751               | 183                           | 131               |
| Company contributions                                   | 1,856                     | 5,747             | 1,259                         | 11,120            |
| Expenses and benefits paid from plan assets             | (1,651)                   | (1,504)           | —                             | —                 |
| Settlements   | —                         | —                 | (1,596)                       | (1,626)           |
| Foreign currency  | —                         | —                 | 1,467                         | 154               |
| Fair value of plan assets at end of year <sup>(1)</sup> | <u>\$ 19,664</u>          | <u>\$ 18,510</u>  | <u>\$ 20,324</u>              | <u>\$ 19,011</u>  |
| Funded Status:  |                           |                   |                               |                   |
| Funded status of plan                                   | \$(29,557)                | \$(26,760)        | \$(17,812)                    | \$(16,695)        |
| Unrecognized actuarial loss (gain)                      | 13,981                    | 10,720            | (1,857)                       | (2,038)           |
| Net amount recognized                                   | <u>\$(15,576)</u>         | <u>\$(16,040)</u> | <u>\$(19,669)</u>             | <u>\$(18,733)</u> |

- (1) In addition to the U.S. pension plan assets, ARRIS has established two rabbi trusts to further fund the pension obligations of the Executive Chairman and certain executive officers of \$25.4 million as of December 31, 2017 and \$21.2 million as of December 31, 2016, and are included in Investments on the Consolidated Balance Sheets.

Amounts recognized in the statement of financial position consist of (in thousands):

|   | U.S. Pension Plans |                   | Non-U.S. Pension Plans |                   |
|---|--------------------|-------------------|------------------------|-------------------|
|   | 2017               | 2016              | 2017                   | 2016              |
| Current liabilities                               | \$(17,670)         | \$ (399)          | \$ —                   | \$ —              |
| Noncurrent liabilities                            | (11,887)           | (26,361)          | (17,812)               | (16,695)          |
| Accumulated other comprehensive loss (income) (1) | 13,981             | 10,720            | (1,857)                | (2,038)           |
| Total   | <u>\$(15,576)</u>  | <u>\$(16,040)</u> | <u>\$(19,669)</u>      | <u>\$(18,733)</u> |

- (1) The accumulated other comprehensive income on the Consolidated Balance Sheets as of December 31, 2017 and 2016 is presented net of income tax.

Other changes in plan assets and benefit obligations recognized in other comprehensive income (loss) are as follows (in thousands):

|   | U.S. Pension Plans |                |                  | Non-U.S. Pension Plans |                |               |
|---|--------------------|----------------|------------------|------------------------|----------------|---------------|
|   | 2017               | 2016           | 2015             | 2017                   | 2016           | 2015          |
| Net (gain) loss                                       | \$3,814            | \$2,068        | \$(3,203)        | \$261                  | \$ 225         | \$ 813        |
| Amortization of net gain (loss)                       | (552)              | (544)          | (834)            | 78                     | 248            | (529)         |
| Adjustments   | —                  | —              | —                | —                      | 1,849          | —             |
| Foreign currency                                      | —                  | —              | —                | —                      | 31             | —             |
| Total recognized in other (loss) comprehensive income | <u>\$3,262</u>     | <u>\$1,524</u> | <u>\$(4,037)</u> | <u>\$339</u>           | <u>\$2,353</u> | <u>\$ 284</u> |

Information for defined benefit plans with accumulated benefit obligations or projected benefit obligation in excess of plan assets as of December 31, 2017 and 2016 is as follows (in thousands):

|  | U.S. Pension Plans |          |      | Non-U.S. Pension Plans |          |
|--|--------------------|----------|------|------------------------|----------|
|  | 2017               | 2016     | 2015 | 2017                   | 2016     |
| Accumulated benefit obligation in excess of plan assets: |                    |          |      |                        |          |
| Accumulated benefit obligation                           | \$49,220           | \$45,270 |      | \$29,741               | \$27,551 |
| Fair value of plan assets                                | 19,664             | 18,510   |      | 20,324                 | 19,011   |
| Projected benefit obligation in excess of plan assets:   |                    |          |      |                        |          |
| Projected benefit obligation                             | 49,220             | \$45,270 |      | 38,136                 | 35,706   |
| Fair value of plan assets                                | 19,664             | 18,510   |      | 20,324                 | 19,011   |

Net periodic pension cost for 2017, 2016 and 2015 for pension and supplemental benefit plans includes the following components (in thousands):

|   | U.S. Pension Plans |                |                | Non-U.S. Pension Plans |                  |                |
|---|--------------------|----------------|----------------|------------------------|------------------|----------------|
|   | 2017               | 2016           | 2015           | 2017                   | 2016             | 2015           |
| Service cost  | \$ —               | \$ —           | \$ —           | \$ 664                 | \$ 703           | \$ 738         |
| Interest cost   | 1,733              | 1,751          | 1,716          | 486                    | 614              | 661            |
| Return on assets (expected)                             | (895)              | (795)          | (839)          | (323)                  | (275)            | (176)          |
| Amortization of net actuarial loss(gain) <sup>(1)</sup> | 552                | 544            | 834            | (78)                   | (70)             | 529            |
| Settlement charge                                       | —                  | —              | —              | —                      | (178)            | —              |
| Adjustments   | —                  | —              | —              | —                      | (1,849)          | —              |
| Foreign currency  | —                  | —              | —              | —                      | (31)             | —              |
| Net periodic pension cost                               | <u>\$1,390</u>     | <u>\$1,500</u> | <u>\$1,711</u> | <u>\$ 749</u>          | <u>\$(1,086)</u> | <u>\$1,752</u> |

- (1) ARRIS uses the allowable 10% corridor approach to determine the amount of gains/losses subject to amortization in pension cost. Gains/losses are amortized on a straight-line basis over the average future service of members expected to receive benefits

Estimated amounts to be amortized from accumulated other comprehensive income (loss) into net periodic benefit costs in the year ending December 31, 2018 based on December 31, 2017 plan measurements are \$1.0 million, consisting primarily of amortization of the net actuarial loss in the U.S. pension plans.

The assumptions used to determine the benefit obligations as of December 31, 2017 and 2016 are as set forth below (in percentage):

|   | <u>U.S. Pension Plans</u> |             |             | <u>Non-U.S. Pension Plans</u> |             |             |
|---|---------------------------|-------------|-------------|-------------------------------|-------------|-------------|
|   | <u>2017</u>               | <u>2016</u> | <u>2015</u> | <u>2017</u>                   | <u>2016</u> | <u>2015</u> |
| <i>Weighted-average assumptions used to determine benefit obligations:</i>        |                           |             |             |                               |             |             |
| Discount rate .....   | 3.45%                     | 3.90%       | 4.15%       | 1.10%                         | 1.30%       | 1.70%       |
| Rate of compensation increase .....   | N/A                       | N/A         | N/A         | N/A                           | N/A         | N/A         |
| <i>Weighted-average assumptions used to determine net periodic benefit costs:</i> |                           |             |             |                               |             |             |
| Discount rate .....   | 3.90%                     | 4.15%       | 3.75%       | 1.30%                         | 1.70%       | 1.90%       |
| Expected long-term rate of return on plan assets .....                            | 5.00%                     | 6.00%       | 6.00%       | 1.40%                         | 1.60%       | 2.00%       |
| Rate of compensation increase (1) .....   | N/A                       | N/A         | N/A         | 3.00%                         | 3.00%       | 3.00%       |

- (1) Represent an average rate for the non-U.S. pension plans. Rate of compensation increase is 4.00% for indirect labor and 2.00% for direct labor for 2017, 2016 and 2015.

The expected long-term rate of return on assets is derived using the building block approach which includes assumptions for the long-term inflation rate, real return, and equity risk premiums.

No minimum funding contributions are required for 2018 for the U.S. Pension plan, however the Company may make a voluntary contribution. The Company estimates it will make funding contributions of \$1.2 million in 2018 for the non-U.S. plan.

As of December 31, 2017, the expected benefit payments related to the Company's defined benefit pension plans during the next ten years are as follows (in thousands):

|                   | <u>U.S. Pension Plans</u> | <u>Non-U.S. Pension Plans</u> |
|-------------------|---------------------------|-------------------------------|
| 2018 .....        | \$18,890                  | \$ 2,840                      |
| 2019 .....        | 1,770                     | 2,122                         |
| 2020 .....        | 1,820                     | 2,169                         |
| 2021 .....        | 1,920                     | 2,273                         |
| 2022 .....        | 1,920                     | 1,905                         |
| 2023 — 2027 ..... | 10,200                    | 10,737                        |

The investment strategies of the plans place a high priority on benefit security. The plans invest conservatively so as not to expose assets to depreciation in adverse markets. The plans' strategy also places a high priority on earning a rate of return greater than the annual inflation rate along with maintaining average market results. The plan has targeted asset diversification across different asset classes and markets to take advantage of economic environments and to also act as a risk minimizer by dampening the portfolio's volatility. The following table summarizes the weighted average pension asset allocations as December 31, 2017 and 2016:

|                           | U.S. Pension Plans |           |        |      |
|---------------------------|--------------------|-----------|--------|------|
|                           | Target             |           | Actual |      |
|                           | 2017               | 2016      | 2017   | 2016 |
| Equity securities         | —                  | 30% - 40% | —      | 30%  |
| Debt securities           | —                  | 0% - 5%   | —      | 2%   |
| Cash and cash equivalents | 80% - 100%         | 60% - 70% | 100%   | 68%  |

Asset allocation for the non-U.S. pension assets is 100% in money market investments.

The following table summarizes the Company's U.S. pension plan assets by category and by level (as described in Note 7 *Fair Value Measurements* of the Notes to the Consolidated Financial Statements) as of December 31, 2017 and 2016 (in thousands):

|  | December 31, 2017 |          |         |          |
|--|-------------------|----------|---------|----------|
|  | Level 1           | Level 2  | Level 3 | Total    |
| Cash and cash equivalents <sup>(1)</sup> | \$19,662          | \$ 2     | \$—     | \$19,664 |
| Total                                    | \$19,662          | \$ 2     | \$—     | \$19,664 |
|  |                   |          |         |          |
|  | December 31, 2016 |          |         |          |
|  | Level 1           | Level 2  | Level 3 | Total    |
| Cash and cash equivalents <sup>(1)</sup> | \$ —              | \$12,723 | \$—     | \$12,723 |
| Equity securities <sup>(2)</sup> :       |                   |          |         |          |
| U.S. large cap                           | 1,123             | —        | —       | 1,123    |
| U.S. mid cap                             | 1,118             | —        | —       | 1,118    |
| U.S. small cap                           | 1,118             | —        | —       | 1,118    |
| International                            | 1,685             | —        | —       | 1,685    |
| Fixed income securities <sup>(3)</sup> : | 743               | —        | —       | 743      |
| Total                                    | \$ 5,787          | \$12,723 | \$—     | \$18,510 |

- (1) Cash and cash equivalents, which are used to pay benefits and administrative expenses, are held in money market and stable value fund.
- (2) Equity securities consist of mutual funds and the underlying investments are indexes. Investments in mutual funds are valued at the net asset value per share multiplied by the number of shares held.
- (3) Fixed income securities consist of bonds securities in mutual funds, and are valued at the net asset value per share multiplied by the number of shares held.

#### **Other Benefit Plans**

ARRIS has established defined contribution plans pursuant to the Internal Revenue Code Section 401(k) that cover all eligible U.S. employees. ARRIS contributes to these plans based upon the dollar amount of each participant's contribution. ARRIS made matching contributions to these plans of approximately \$16.5 million, \$16.4 million and \$16.6 million in 2017, 2016 and 2015, respectively.

The Company has a deferred compensation plan that does not qualify under Section 401(k) of the Internal Revenue Code, and is available to key executives of the Company and certain other employees. Employee com-



pensation deferrals and matching contributions are held in a rabbi trust. The total of net employee deferrals and matching contributions, which is reflected in other long-term liabilities, was \$5.7 million and \$4.2 million at December 31, 2017 and 2016, respectively. Total expenses included in continuing operations for the matching contributions were approximately \$0.3 million and \$0.2 million in 2017 and 2016, respectively.

The Company previously offered a deferred compensation arrangement, which allowed certain employees to defer a portion of their earnings and defer the related income taxes. As of December 31, 2004, the plan was frozen and no further contributions are allowed. The deferred earnings are invested in a rabbi trust. The total of net employee deferral and matching contributions, which is reflected in other long-term liabilities, was \$3.1 million and \$3.0 million at December 31, 2017 and 2016, respectively.

The Company also has a deferred retirement salary plan, which was limited to certain current or former officers. The present value of the estimated future retirement benefit payments is being accrued over the estimated service period from the date of signed agreements with the employees. The accrued balance of this plan, the majority of which is included in other long-term liabilities, were \$1.5 million and \$1.6 million at December 31, 2017 and 2016, respectively. Total expenses (income) included in continuing operations for the deferred retirement salary plan were approximately \$0.2 million and \$0.4 million for 2017 and 2016, respectively.

#### Note 21. Accumulated Other Comprehensive Income (Loss)

The following table summarizes the changes in accumulated other comprehensive income (loss) by component, net of taxes, for the year ended December 31, 2017 and 2016 (in thousands):

|   | <u>Available-for<br/>sale securities</u> | <u>Derivative<br/>instruments</u> | <u>Pension<br/>obligations</u> | <u>Cumulative<br/>translation<br/>adjustments</u> | <u>Total</u>    |
|---|--|-----------------------------------|--------------------------------|---|-----------------|
| Balance as of December 31, 2015 .....   | \$133                                    | \$(6,781)                         | \$(4,195)                      | \$(1,803)   | \$(12,646)      |
| Other comprehensive (loss) income before reclassifications .....              | (11)                                     | 1,631                             | (2,934)                        | 11,096  | 9,782           |
| Amounts reclassified from accumulated other comprehensive income (loss) ..... | <u>15</u>                                | <u>5,821</u>                      | <u>319</u>                     | <u>—</u>  | <u>6,155</u>    |
| Net current-period other comprehensive income (loss) .....                    | <u>4</u>                                 | <u>7,452</u>                      | <u>(2,615)</u>                 | <u>11,096</u>                                     | <u>15,937</u>   |
| Balance as of December 31, 2016 .....   | <u>\$137</u>                             | <u>\$ 671</u>                     | <u>\$(6,810)</u>               | <u>\$ 9,293</u>                                   | <u>\$ 3,291</u> |
| Other comprehensive (loss) income before reclassifications .....              | 471                                      | 3,790                             | (2,487)                        | (2,050)   | (276)           |
| Amounts reclassified from accumulated other comprehensive income (loss) ..... | <u>54</u>                                | <u>1,128</u>                      | <u>304</u>                     | <u>—</u>  | <u>1,486</u>    |
| Net current-period other comprehensive income (loss) .....                    | <u>525</u>                               | <u>4,918</u>                      | <u>(2,183)</u>                 | <u>(2,050)</u>                                    | <u>1,210</u>    |
| Balance as of December 31, 2017 .....   | <u>\$662</u>                             | <u>\$ 5,589</u>                   | <u>\$(8,993)</u>               | <u>\$ 7,243</u>                                   | <u>\$ 4,501</u> |

#### Note 22. Repurchases of Stock

Upon completing the Pace combination, ARRIS International plc conducted a court-approved process in accordance with section 641(1)(b) of the U.K. Companies Act 2006, pursuant to which the Company reduced its stated share capital and thereby increased its distributable reserves or excess capital out of which ARRIS may legally pay dividends or repurchase shares. Distributable reserves are not linked to a U.S. GAAP reported amount.

In 2016, the Company's Board of Directors approved a \$300 million share repurchase authorization replacing all prior programs. In early 2017, the Board authorized an additional \$300 million for share repurchases.

During 2016, the Company repurchased 7.4 million of its ordinary shares for \$178.0 million at an average stock price of \$24.09.

During 2017, ARRIS repurchased 7.5 million shares of its ordinary shares at an average price of \$26.12 per share, for an aggregate consideration of approximately \$197.0 million. The remaining authorized amount for stock repurchases was \$225.0 million as of December 31, 2017. Unless terminated earlier by a Board resolution, this new plan will expire when ARRIS has used all authorized funds for repurchase. However, U.K. law also generally prohibits a company from repurchasing its own shares through “off market purchases” without prior approval of shareholders because we are not traded on a recognized investment exchange in the U.K. This shareholder approval lasts for a maximum period of five years. Prior to and in connection with the Pace combination, we obtained approval to purchase our own shares. This authority to repurchase shares terminates in January 2021, unless otherwise reapproved by our shareholders.

### **Note 23. Commitments and Contingencies**

#### *General Matters*

ARRIS leases office, distribution, and warehouse facilities as well as equipment under long-term leases expiring at various dates through 2023. Included in these operating leases are certain amounts related to restructuring activities; these lease payments and related sublease income are included in restructuring accruals on the consolidated balance sheets. Future minimum operating lease payments under non-cancelable leases at December 31, 2017 were as follows (in thousands):

|                                    | <u>Operating Leases</u> |
|------------------------------------|-------------------------|
| 2018 .....                         | \$ 37,661               |
| 2019 .....                         | 31,864                  |
| 2020 .....                         | 27,288                  |
| 2021 .....                         | 24,502                  |
| 2022 .....                         | 20,558                  |
| Thereafter .....                   | 42,768                  |
| Less sublease income .....         | <u>(4,674)</u>          |
| Total minimum lease payments ..... | <u>\$179,967</u>        |

Total rental expense for all operating leases amounted to approximately \$26.4 million, \$34.0 million and \$26.9 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Additionally, the Company had contractual obligations of approximately \$772.1 million under agreements with non-cancelable terms to purchase goods or services over the next year. All contractual obligations outstanding at the end of prior years were satisfied within a 12-month period, and the obligations outstanding as of December 31, 2017 are expected to be satisfied by 2018.

#### *Bank Guarantees*

The Company has outstanding bank guarantees, of which certain amounts are collateralized by restricted cash. As of December 31, 2017, the restricted cash associated with the outstanding bank guarantee was \$1.5 million which is reflected in Other Assets on the Consolidated Balance Sheets.

#### *Legal Proceedings*

The Company accrues a liability for legal contingencies when it believes that it is both probable that a liability has been incurred and that it can reasonably estimate the amount of the loss. The Company reviews these accruals and adjusts them to reflect ongoing negotiations, settlements, rulings, advice of legal counsel and other relevant information. To the extent new information is obtained and the Company’s views on the probable outcomes of claims, suits, assessments, investigations or legal proceedings change, changes in the Company’s accrued liabilities would be recorded in the period in which such determinations are made. Unless noted other-

wise, the amount of liability is not probable or the amount cannot be reasonably estimated; and therefore, accruals have not been made.

Due to the nature of the Company's business, it is subject to patent infringement claims, including current suits against it or one or more of its wholly-owned subsidiaries, or one or more of our customers who may seek indemnification from us, alleging infringement by various Company products and services. The Company believes that it has meritorious defenses to the allegations made in its pending cases and intends to vigorously defend these lawsuits; however, it is currently unable to determine the ultimate outcome of these or similar matters. Accordingly, the Company is currently unable to reasonably estimate the possible loss or range of possible loss for any of the matters identified in Part II, Item 1 "Legal Proceedings". The results in litigation are unpredictable and an adverse resolution of one or more of such matters not included in the estimate provided, or if losses are higher than what is currently estimated, it could have a material adverse effect on our business, financial position, results of operations or cash flows. In addition, the Company is a defendant in various litigation matters generally arising out of the normal course of business. (See Part I, Item 3 "Legal Proceedings" for additional details).

#### Note 24. Subsequent Events

In February 2018, the Company announced an agreement to sell its manufacturing facility in New Taipei City, Taiwan, along with certain manufacturing fixed assets. The aggregate consideration for the acquired assets is \$81.3 million (\$75.0 million for the facility and land, plus \$6.3 million for the manufacturing fixed assets). As a condition of sale, the Company will indemnify the buyer for certain environmental obligations up to \$7.0 million. As of December 31, 2017, the carrying amount of the facility, land, and manufacturing fixed assets was approximately \$57.9 million and will be reclassified as held for sale in the first quarter of 2018. The Company expects to close the transaction in the second half of 2018.

In addition, the Company expects to incur restructuring charges of approximately \$15.0 million in the first quarter of 2018 for employee severance and termination benefits in connection with the sale.

#### Note 25. Summary Quarterly Consolidated Financial Information (unaudited)

The following table summarizes ARRIS's quarterly consolidated financial information (in thousands, except per share data):

|                                     | Quarters in 2017 Ended, |             |              |                                      |
|-------------------------------------|-------------------------|-------------|--------------|--------------------------------------|
|                                     | March 31,               | June 30,    | September 30 | December 31, <sup>(1)(2)(3)(4)</sup> |
| Net sales                           | \$1,483,105             | \$1,664,170 | \$1,728,524  | \$1,738,593                          |
| Gross margin                        | 337,257                 | 403,357     | 431,155      | 494,470                              |
| Operating (loss) income             | (4,084)                 | 55,636      | 84,157       | (12,698)                             |
| Net (loss) income attributable to   |                         |             |              |                                      |
| ARRIS International plc             | \$ (39,098)             | \$ 30,336   | \$ 88,320    | \$ 12,469                            |
| Net (loss) income per basic share   | \$ (0.21)               | \$ 0.16     | \$ 0.47      | \$ 0.07                              |
| Net (loss) income per diluted share | \$ (0.21)               | \$ 0.16     | \$ 0.47      | \$ 0.07                              |
|                                     |                         |             |              |                                      |
|                                     | Quarters in 2016 Ended  |             |              |                                      |
|                                     | March 31,               | June 30,    | September 30 | December 31, <sup>(5)(6)</sup>       |
| Net sales                           | \$1,614,706             | \$1,730,044 | \$1,725,145  | \$1,759,223                          |
| Gross margin                        | 384,032                 | 444,734     | 442,850      | 436,001                              |
| Operating (loss) income             | (86,490)                | 33,388      | 91,313       | 72,506                               |
| Net (loss) income attributable to   |                         |             |              |                                      |
| ARRIS International plc             | \$ (202,573)            | \$ 84,228   | \$ 48,162    | \$ 88,283                            |
| Net (loss) income per diluted share | \$ (1.06)               | \$ 0.44     | \$ 0.25      | \$ 0.46                              |
| Net (loss) income per basic share   | \$ (1.06)               | \$ 0.44     | \$ 0.25      | \$ 0.46                              |

#### Year 2017

- (1) For the quarter ended December 31, 2017, the Company recorded an increase to net sales of \$8.1 million, to reverse previous quarters reduction in net sales in connection with Warrants.
- (2) In the fourth quarter of 2017, the Company recorded partial impairments of goodwill and indefinite-lived tradenames of \$51.2 million and \$3.8 million, respectively, acquired in our ActiveVideo acquisition and included as part of our Cloud TV reporting unit, of which \$19.3 million is attributable to noncontrolling interest.
- (3) In the fourth quarter of 2017, the Company recorded acquisition costs of \$61.5 million related to the cash settlement of stock-based awards held by transferring employees.
- (4) During 2017, the Company recorded a foreign currency remeasurement loss of \$10.5 million related primarily to a deferred income tax liability, in the United Kingdom. This deferred income tax liability is denominated in GBP. The foreign currency remeasurement gain derives from the remeasurement of the GBP deferred income tax liability to the USD, since the date of the acquisition.

#### Year 2016

- (5) For the quarter ended December 31, 2016, the Company recorded \$16.4 million as a reduction to net sales in connection with Warrants.
- (6) In the fourth quarter of 2016, the Company recorded foreign currency remeasurement gains of approximately \$16 million related to the remeasurement of net deferred income tax liabilities in the U.K. where the functional currency is the U.S. dollar. Approximately \$8 million resulted from changes in exchange rates prior to the 4<sup>th</sup> quarter in 2016 and was considered the correction of an immaterial misstatement of interim financial statements in 2016. In accordance with ASC Topic 250, *Accounting Changes and Error Corrections*, the Company evaluated the impact of the 4<sup>th</sup> quarter adjustment on its previously issued interim financial statements in 2016 and concluded that the results of operations for these periods were not materially misstated and accordingly the correction was recorded in the 4<sup>th</sup> quarter.

## PART III

### **Item 10. Directors, Executive Officers, and Corporate Governance**

Information relating to directors and officers of ARRIS, the Audit Committee of the board of directors and stockholder nominations for directors is set forth under the captions entitled “Election of Directors,” “Section 16(a) Beneficial Ownership Reporting Compliance,” and “Committees Composition and Meeting Attendance” in the Company’s Proxy Statement for the Annual General Meeting of Stockholders to be held in 2018 (the “Proxy Statement”) and is incorporated herein by reference. Certain information concerning the executive officers of the Company is set forth in Part I of this document under the caption entitled “Executive Officers of the Company.”

ARRIS’s code of ethics and financial code of ethics (applicable to our CEO, senior financial officers, and all finance, accounting, and legal managers) are available on our website at [www.arris.com](http://www.arris.com) under Investor Relations, Corporate Governance. The website also will disclose whether there have been any amendments or waivers to the Code of Ethics and Financial Code of Ethics. ARRIS will provide copies of these documents in electronic or paper form upon request to Investor Relations, free of charge.

ARRIS’s board of directors has identified each of Doreen A. Toben, chairperson of the Audit Committee, and J. Timothy Bryan, as an audit committee financial expert, as defined by the SEC.

### **Item 11. Executive Compensation**

Information regarding compensation of officers and directors of ARRIS is set forth under the captions entitled “Executive Compensation,” “Compensation of Directors,” “Employment Contracts and Termination of Employment and Change-In-Control Arrangements,” “Committee Composition and Meeting Attendance,” and “Compensation Committee Report” in the Proxy Statement and is incorporated herein by reference.

### **Item 12. Security Ownership of Certain Beneficial Owners, Management and Related Stockholders Matters**

## EQUITY COMPENSATION PLAN INFORMATION

The following table sets forth information concerning our ordinary shares that may be issued under all equity compensation plans as of December 31, 2017:

| <u>Plan Category</u>                                       | <u>Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights<sup>(1)</sup></u> | <u>Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights</u> | <u>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in 1<sup>st</sup> Column)<sup>(2)</sup></u> |
|--|--|--|---|
| Equity compensation plans approved by security holders     | 8,383,864  | —  | 18,494,458  |
| Equity compensation plans not approved by security holders | —  | —  | —   |
| Total .....  | 8,383,864  | —  | 18,494,458  |

(1) The total number of securities to be issued upon exercise of outstanding options, warrants and rights consists of, upon vesting, restricted shares of 8,383,864.

(2) Represents securities available for future issuance under current plans. 18,494,458 stock options or 9,890,084 restricted shares are available under for issuance the ARRIS 2016 Stock Incentive Plan (the “2016 Plan”). The 2016 Plan has been designed to allow for flexibility in the form of awards; awards denominated in shares of common stock other than stock options and stock appreciation rights will be counted against the plan limit as 1.87 shares for every one share covered by such an award. 4,695,394 shares

are available for issuance under the 2001 Employee Stock Purchase Plan, which is in compliance with Section 423 of the U.S. Internal Revenue Code.

Information regarding ownership of ARRIS ordinary shares is set forth under the captions entitled “Equity Compensation Plan Information,” “Security Ownership of Management and Directors” and “Security Ownership of Principal Shareholders” in the Proxy Statement and is incorporated herein by reference.

**Item 13. *Certain Relationships, Related Transactions, and Director Independence***

Information regarding certain relationships, related transactions with ARRIS, and director independence is set forth under the captions entitled “Compensation of Directors,” “Certain Relationships and Related Party Transactions,” and “Election of Directors” in the Proxy Statement and is incorporated herein by reference.

**Item 14. *Principal Accountant Fees and Services***

Information regarding principal accountant fees and services is set forth under the caption “An Ordinary Resolution to Ratify the Audit Committee’s Appointment of Ernst & Young LLP as our Independent Registered Public Accounting Firm for the Fiscal Year Ending December 31, 2018” in the Proxy Statement and is incorporated herein by reference.

## PART IV

### Item 15. Exhibits and Financial Statement Schedules

#### (a) (1) Financial Statements

The following Consolidated Financial Statements of ARRIS International plc and Report of Ernst & Young LLP, Independent Registered Public Accounting Firm, are filed as part of this Report.

|  | <u>Page</u> |
|--|-------------|
| Report of Independent Registered Public Accounting Firm .....  | 89          |
| Consolidated Balance Sheets at December 31, 2017 and 2016 .....  | 90          |
| Consolidated Statements of Income for the years ended December 31, 2017, 2016 and 2015 .....               | 91          |
| Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, 2016 and 2015 ..... | 92          |
| Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015 .....           | 93          |
| Consolidated Statements of Stockholders' Equity for the years ended December 31, 2017, 2016 and 2015 ..... | 95          |
| Notes to the Consolidated Financial Statements .....   | 96          |

#### (a) (2) Financial Statements Schedules

All schedules are omitted because they are not applicable or not required because this information is provided in the financial statements

#### (a) (3) Exhibit List

Each management contract or compensation plan required to be filed as an exhibit is identified by an asterisk (\*). Portions of the documents designated with a double asterisk (\*\*) were omitted and filed separately with the SEC pursuant to a request for confidential treatment in accordance with Rule 24b-2 of the Exchange Act.

| <u>Exhibit Number</u> | <u>Description of Exhibit</u>  | <u>The filings referenced for incorporation by reference are ARRIS International plc filings unless otherwise noted</u> |
|-----------------------|--|---|
| 2.1(a)                | Stock and Asset Purchase Agreement, dated February 22, 2017, by and among ARRIS International plc, LSI Corporation, and Broadcom Corporation ..... | February 23, 2017 Form 8-K, Exhibit 2.1   |
| 2.1(b)                | First Amendment to Stock and Asset Purchase Agreement, dated October 16, 2017 .....  | October 16, 2017 Form 8-K, Exhibit 2.1  |
| 2.1(c)                | Second Amendment to Stock and Asset Purchase Agreement, dated December 1, 2017 .....   | December 1, 2017 Form 8-K, Exhibit 2.3  |
| 3.1                   | Article of Association of ARRIS International plc (as of May 11, 2016) .....   | May 12, 2016 Form 8-K, Exhibit 3.1  |
| 4.1                   | Form of Certificate for Ordinary Shares .....  | December 31, 2015 Form 10-K of ARRIS Group, Inc., Exhibit 4.1   |
| 4.2                   | Registration Rights Agreement with General Instrument Holdings, Inc. ....  | April 18, 2013, Form 8-K of ARRIS Group, Inc., Exhibit 4.1  |
| 4.3**                 | Warrant and Registration Rights Agreement dated June 29, 2016, with Comcast Cable Communications Management, LLC .....                             | July 5, 2016, Form 8-K, Exhibit 4.1   |

| Exhibit Number | Description of Exhibit  | The filings referenced for incorporation by reference are ARRIS International plc filings unless otherwise noted |
|----------------|---|--|
| 4.4**          | Warrant and Registration Rights Agreement dated September 30, 2016, with Charter Communications Operating, LLC        | October 6, 2016, Form 8-K, Exhibit 4.1   |
| 10.1(a)*       | Amended and Restated Employment Agreement with Robert J. Stanzione, dated August 6, 2001                              | September 30, 2001 Form 10-Q of ARRIS Group, Inc., Exhibit 10.10(c)  |
| 10.1(b)*       | Supplemental Executive Retirement Plan for Robert J. Stanzione, effective August 6, 2001                              | September 30, 2001 Form 10-Q of ARRIS Group, Inc., Exhibit 10.10(d)  |
| 10.1(c)*       | Amendment to Employment Agreement with Robert J. Stanzione, dated December 8, 2006                                    | December 11, 2006 Form 8-K of ARRIS Group, Inc., Exhibit 10.7  |
| 10.1(d)*       | Second Amendment to Amended and Restated Employment Agreement with Robert J. Stanzione, dated November 26, 2008       | November 28, 2008 Form 8-K of ARRIS Group, Inc., Exhibit 10.8  |
| 10.1(e)*       | First Amendment to the Robert Stanzione Supplemental Executive Retirement Plan, dated November 26, 2008               | November 28, 2008 Form 8-K of ARRIS Group, Inc., Exhibit 10.9  |
| 10.1(f)*       | Third Amendment dated September 1, 2016 to the Amended and Restated Employee Agreement with Robert Stanzione          | September 2, 2016 Form 8-K, Exhibit 10.1   |
| 10.2(a)*       | Employment Agreement with David B. Potts dated December 8, 2006   | December 11, 2006 Form 8-K of ARRIS Group, Inc., Exhibit 10.4  |
| 10.2(b)*       | First Amendment to Employment Agreement with David B. Potts, dated November 26, 2008                                  | November 28, 2008 Form 8-K of ARRIS Group, Inc., Exhibit 10.6  |
| 10.3(a)*       | Employment Agreement with Tim O'Loughlin, dated January 4, 2016   | March 31, 2017 Form 10-Q, Exhibit 10.1   |
| 10.4*          | Amended and Restated Employment Agreement with Bruce McClelland effective as of September 1, 2016                     | August 24, 2016 Form 8-K, Exhibit 10.1   |
| 10.5*          | Deed Poll of Indemnity with Directors   | January 4, 2016 Form 8-K, Exhibit 10.1   |
| 10.6*          | Form of Employment Agreement Waiver entered into with each Executive Officer as of January 3, 2014 (Pace combination) | January 4, 2016 Form 8-K, Exhibit 10.13  |
| 10.7*          | Form of Opt Plan Waiver   | January 4, 2016 Form 8-K, Exhibit 10.12  |
| 10.8(a)*       | ARRIS International plc Amended and Restated Employee Stock Purchase Plan   | January 4, 2016 Form 8-K, Exhibit 10.2   |
| 10.8(b)*       | First Amendment to the Amended and Restated Employee Stock Purchase Plan  | June 30, 2017 Form 10-Q, Exhibit 10.1  |
| 10.9*          | ARRIS International plc 2011 Stock Incentive Plan   | January 4, 2016 Form 8-K, Exhibit 10.3   |
| 10.10*         | Broadband Parent Corporation 2001 Stock Incentive Plan  | January 4, 2016 Form 8-K, Exhibit 10.4   |
| 10.11*         | ARRIS Group, Inc. 2004 Stock Incentive Plan   | January 4, 2016 Form 8-K, Exhibit 10.5   |
| 10.12*         | ARRIS Group, Inc. 2007 Stock Incentive Plan   | January 4, 2016 Form 8-K, Exhibit 10.6   |



| Exhibit Number | Description of Exhibit  | The filings referenced for incorporation by reference are ARRIS International plc filings unless otherwise noted |
|----------------|---|--|
| 10.13*         | ARRIS Group, Inc. 2008 Stock Incentive Plan . . . . .   | January 4, 2016 Form 8-K, Exhibit 10.7   |
| 10.14*         | BigBand Networks, Inc. 2007 Equity Incentive Plan . . .   | January 4, 2016 Form 8-K, Exhibit 10.8   |
| 10.15*         | Pace Sharesave Plan . . . . .   | January 4, 2016 Form 8-K, Exhibit 10.9   |
| 10.16*         | Assumption Agreement for benefit plans (Pace combination) . . . . .   | January 4, 2016 Form 8-K, Exhibit 10.10  |
| 10.17*         | Form of Deed of Grant for Pace Sharesave Plan . . . . .   | January 4, 2016 Form 8-K, Exhibit 10.11  |
| 10.18*         | Form of Stock Options Grant under 2001 and 2004 Stock Incentive Plans . . . . .                             | March 31, 2005 Form 10-Q of ARRIS Group, Inc., Exhibit 10.20   |
| 10.19*         | Form of Restricted Stock Grant under 2001 and 2004 Stock Incentive Plans . . . . .                          | March 31, 2005 Form 10-Q of ARRIS Group, Inc., Exhibit 10.21   |
| 10.20*         | Form of Incentive Stock Option Agreement . . . . .  | September 30, 2007, Form 10-Q of ARRIS Group, Inc., Exhibit 10.1   |
| 10.21*         | Form of Nonqualified Stock Option Agreement . . . . .   | September 30, 2007, Form 10-Q of ARRIS Group, Inc., Exhibit 10.2   |
| 10.22*         | Form of Restricted Stock Award Agreement . . . . .  | September 30, 2007, Form 10-Q of ARRIS Group, Inc., Exhibit 10.3   |
| 10.23*         | Form of Nonqualified Stock Options Agreement . . . . .  | April 11, 2008, Form 8-K of ARRIS Group, Inc., Exhibit 10.1  |
| 10.24*         | Form of Restricted Stock Grant . . . . .  | April 11, 2008, Form 8-K of ARRIS Group, Inc., Exhibit 10.2  |
| 10.25*         | Form of Restricted Stock Unit Grant . . . . .   | April 11, 2008, Form 8-K of ARRIS Group, Inc., Exhibit 10.3  |
| 10.26*         | Form of Restricted Stock Agreement . . . . .  | March 31, 2009, Form 10-Q of ARRIS Group, Inc., Exhibit 10.24  |
| 10.27*         | Form of Restricted Stock Unit . . . . .   | March 31, 2009, Form 10-Q of ARRIS Group, Inc., Exhibit 10.25  |
| 10.28*         | Assumption Agreement for Benefit Plans (Motorola Home acquisition) . . . . .                                | April 16, 2013, Form 8-K of ARRIS Group, Inc., Exhibit 10.1  |
| 10.29*         | Form of Restricted Stock Grant Award Agreement under 2011 and 2016 Stock Incentive Plans . . . . .          | April 16, 2013, Form 8-K of ARRIS Group, Inc., Exhibit 10.3  |
| 10.30*         | Form of Change of Control Waiver (Motorola Home acquisition) . . . . .                                      | April 16, 2013, Form 8-K of ARRIS Group, Inc., Exhibit 10.4  |
| 10.31(a)       | Amended and Restated Credit Agreement dated as of June 18, 2015 . . . . .                                   | June 19, 2015, Form 8-K of ARRIS Group, Inc., Exhibit 10.1   |
| 10.31(b)       | Third Amendment and Consent to Amended and Restated Credit Agreement dated as of October 17, 2017 . . . . . | October 19, 2017, Form 8-K, Exhibit 10.1   |

| Exhibit Number | Description of Exhibit  | The filings referenced for incorporation by reference are ARRIS International plc filings unless otherwise noted  |
|----------------|---|---|
| 10.31(c)       | Fourth Amendment and Consent to Amended and Restated Credit Agreement dated as of December 20, 2017 ..... | December 26, 2017, Form 8-K, Exhibit 10.1   |
| 10.32*         | ARRIS International plc 2016 Stock Incentive Plan .....   | May 12, 2016, Form 8-K, Exhibit 10.1  |
| 10.33*         | Management Incentive Plan .....   | Incorporated from Appendix C to the ARRIS Group, Inc. Proxy Statement for the 2013 Annual Meeting of Shareholders |
| 21             | Subsidiaries of the Registrant .....  | Filed herewith.   |
| 23             | Consent of Independent Registered Public Accounting Firm .....  | Filed herewith.   |
| 31.1           | Section 302 Certification of the Chief Executive Officer .....  | Filed herewith.   |
| 31.2           | Section 302 Certification of the Chief Financial Officer .....  | Filed herewith.   |
| 32.1           | Section 906 Certification of the Chief Executive Officer .....  | Filed herewith.   |
| 32.2           | Section 906 Certification of the Chief Financial Officer .....  | Filed herewith.   |
| 101.INS        | XBRL Instant Document .....   | Filed herewith  |
| 101.SCH        | XBRL Taxonomy Extension Schema Document ....  | Filed herewith  |
| 101.CAL        | XBRL Taxonomy Extension Calculation Linkbase Document .....   | Filed herewith  |
| 101.DEF        | XBRL Taxonomy Extension Definition Linkbase Document .....  | Filed herewith  |
| 101.LAB        | XBRL Taxonomy Extension Labels Linkbase Document .....  | Filed herewith  |
| 101. PRE       | XBRL Taxonomy Extension Presentation Linkbase Document .....  | Filed herewith  |

**Item 16. *Form 10-K Summary***

Not Applicable.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ARRIS INTERNATIONAL PLC

\_\_\_\_\_  
/s/ DAVID B. POTTS

David B. Potts  
*Executive Vice President,  
Chief Financial Officer and  
Chief Accounting Officer*

Dated: March 1, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

|   |  |               |
|---|--|---------------|
| /s/ BRUCE MCCLELLAND<br>Bruce W. McClelland | Chief Executive Officer and Director   | March 1, 2018 |
| /s/ RJ STANZIONE<br>Robert J. Stanzione     | Executive Chairman and Chairman of<br>the Board of Directors                         | March 1, 2018 |
| /s/ DAVID B. POTTS<br>David B. Potts        | Executive Vice President, Chief<br>Financial Officer and Chief<br>Accounting Officer | March 1, 2018 |
| /s/ ANDREW BARRON<br>Andrew Barron          | Director   | March 1, 2018 |
| /s/ ALEX B. BEST<br>Alex B. Best            | Director   | March 1, 2018 |
| /s/ J. TIMOTHY BRYAN<br>J. Timothy Bryan    | Director   | March 1, 2018 |
| /s/ JAMES A. CHIDDIX<br>James A. Chiddix    | Director   | March 1, 2018 |
| /s/ ANDREW T. HELLER<br>Andrew T. Heller    | Director   | March 1, 2018 |
| /s/ JEONG H. KIM<br>Jeong H. Kim            | Director   | March 1, 2018 |
| /s/ DOREEN A. TOBEN<br>Doreen A. Toben      | Director   | March 1, 2018 |

/s/ DEBORA J. WILSON  
Debora J. Wilson

Director

March 1, 2018

/s/ DAVID A. WOODLE  
David A. Woodle

Director

March 1, 2018

ARRIS International plc & Subsidiaries  
(as of March 1, 2018)

ARRIS International plc, (UK), stock is publicly traded

- ARRIS Financing II S.à r.L (Luxembourg)
  - ARRIS Ireland Financing Unlimited Company (Ireland)
  - ARRIS Holdings S.à r.L (Luxembourg)
- ARRIS U.S. Holdings, Inc. (Delaware)
  - Pace Americas Investments LLC (Delaware)
  - ARRIS Ruckus Government Solutions, Inc. (Delaware)
  - Ruckus Wireless, Inc. (Delaware)
    - Brocade Israel Ltd (Israel)
      - Ruckus Wireless IL Ltd (Israel)
    - Brocade Communications Systems KK (Japan)
      - Ruckus Wireless Japan GK (Japan)
    - Ruckus International Brazil Representacoes Ltda. (Brazil)
    - Ruckus Wireless International, Inc (Delaware)
      - Australia Branch.
      - Hong Kong Branch
      - Taiwan Branch
      - Brocade US Holdings LLC (Delaware)
      - Brocade Group Holdings, LP (Cayman)
        - Ruckus Wireless Technology Ltd. (Cayman)
        - Brocade LUX Holdings S.a r.L (Luxembourg)
      - Brocade Communications Systems Taiwan Ltd. (Taiwan)
      - Brocade Communications Singapore Pte. Ltd.
        - Ruckus Wireless Singapore Pte. Ltd.
      - Ruckus Wireless Network Technology (Shenzhen) Co. Ltd. (China)
        - Beijing Branch
        - Ruckus Wireless Private Ltd. (India)
        - Ruckus Wireless UK Ltd. (UK)
- ARRIS Group Inc., (Delaware)
  - ARRIS Solutions, Inc. (Delaware)
    - ARRIS Broadband Solutions, Ltd. (Israel)
    - ARRIS Group Europe Holding B.V. (Netherlands)
      - ARRIS Group B.V. (Netherlands)
        - France Branch
        - U.K. Branch
      - ARRIS International Iberia S.L. (Spain)
      - ARRIS Group de Mexico S.A. de C.V. (Mexico)
      - C-COR Solutions Pvt. Ltd. (India) - dormant
      - Worldbridge Broadband Services S. de R.L. e C.V. (Mexico) - dormant
      - ANTEC International Corporation (Barbados) - dormant
      - ARRIS STB Mexico S.A. de C.V. (Mexico)
      - 2Wire Singapore Pte. Ltd. (Singapore)
      - Kenati Technologies, Inc. (Delaware)
        - 2Wire Development Center Private Limited (India)
      - Aurora Networks International LLC (Delaware)
        - China Rep Office
    - ARRIS Technology, Inc. (Delaware)
      - Malaysia Branch
      - ARRIS Enterprises LLC (Delaware)
        - ARRIS Global Services, Inc., (Delaware)
        - ARRIS Telecomunicações do Brasil Ltda (Brazil)
        - ARRIS Group Japan K.K. (Japan)
        - ARRIS Communications Ireland Limited (Ireland)
        - ARRIS Technology (Shenzhen) Co., Ltd. (China)
          - Beijing Branch

Shanghai Branch

Jerrold DC Radio, Inc. (Delaware)

ARRIS France S.A.S. (France)

ARRIS Poland Sp. z o.o. (Poland)

ARRIS Solutions Spain S.L. (Spain)

ARRIS de Argentina S.A. (Argentina)  
ARRIS Telecomunicaciones Chile Ltda. (Chile)  
ARRIS de Colombia S.A.S. (Colombia)  
ARRIS de Mexico S.A. de C.V. (Mexico)  
ARRIS de Peru SRL (Peru)  
ARRIS Group Australia Pty. Ltd. (Australia)  
ARRIS Hong Kong Limited (Hong Kong)  
ARRIS Group Korea, Inc. (Korea)  
ARRIS Solutions Malaysia Sdn Bhd (Malaysia)  
ARRIS Singapore Pte. Ltd. (Singapore)

ARRIS Solutions U.K. Ltd. (U.K.)

U.A.E. Branch, Dubai  
ARRIS Canada, Inc. (Canada)  
ARRIS Solutions Denmark ApS  
ARRIS Taiwan, Ltd. (Taiwan)  
ARRIS Global Procurement Ltd. (Hong Kong)  
Singapore Branch  
Taiwan Branch  
ARRIS Technology (Hangzhou) Ltd. (China)  
Beijing Branch  
Shanghai Branch

GIC International Capital LLC (Delaware)  
ARRIS Solutions Germany GmbH (Germany)  
ARRIS Sweden A.B. (Sweden)  
GIC International Holdco LLC (Delaware)  
ARRIS del Ecuador S.A. (Ecuador)  
ARRIS de Guatemala S.A. (Guatemala)  
ARRIS Belgium BVBA (Belgium)  
ARRIS Solutions Portugal Unipessoal Ltd. (Portugal)  
ARRIS New Zealand Ltd. (New Zealand)  
ARRIS Telekomunikasyon Cihazlari Limited Sirketi (Turkey)  
ARRIS Group Russia LLC (Russia)

ARRIS Global Ltd. (UK)

Pace Aus Pty. Ltd. (Australia)  
ARRIS Group India Private Limited (India)  
Pace Asia Pacific Ltd. (Hong Kong)  
Pace Electronic Devices Technology Consulting (Shenzhen) Co. Ltd. (China)  
Latens Systems Ltd. (UK – N. Ireland)  
Latens Services Ltd. (UK – N. Ireland)  
Latens Systems Israel Ltd. (Israel)  
Latens Systems LLC (Georgia)  
Latens Systems (India) Private Limited (India)  
Pace Operations Ltd. (UK)  
Pace Micro Technology Ltd. (UK)  
ARRIS International IP Ltd. (UK)  
ARRIS Indústria Eletrônica do Brasil Ltda (Brazil)  
ARRIS Solutions France S.A.S. (France)  
Pace Asia Home Networks Sdn. Bhd. (Malaysia)  
Pace Iberia S.L.U. (Spain)  
Pace Advanced Consumer Electronics Ltd. (UK)  
Pace East Trading Ltd. (UK)  
Pace International ME FZE (U.A.E.)  
Pace International Luxembourg S.à r.L (Luxembourg)  
Pace Distribution (Overseas) Ltd. (UK)  
Pace Overseas Distribution Ltd. (UK)  
ARRIS South Africa (Pty) Ltd. (S. Africa)



**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement No. 333-219985 on Form S-8 (ARRIS International plc Amended and Restated Employee Stock Purchase Plan)
- (2) Registration Statement No. 333-216680 on Form S-8 (ARRIS International plc 2016 Stock Incentive Plan)
- (3) Registration Statement No. 333-208849 on Form S-8 (Pace Sharesave Plan)
- (4) Registration Statement No. 333-208848 on Form S-8 (Broadband Parent Corporation 2001 Stock Incentive Plan, ARRIS Group, Inc. 2004 Stock Incentive Plan, ARRIS Group, Inc. 2007 Stock Incentive Plan, ARRIS Group, Inc. 2008 Stock Incentive Plan, BigBand Networks, Inc. 2007 Equity Incentive Plan, ARRIS Group, Inc. Employee Savings Plan)
- (5) Registration Statement No. 333-208847 on Form S-8 (ARRIS International plc Amended and Restated Employee Stock Purchase Plan)
- (6) Registration Statement No. 333-208846 on Form S-8 (ARRIS International plc 2011 Stock Incentive Plan)

of our reports dated March 1, 2018, with respect to the consolidated financial statements of ARRIS International plc, and the effectiveness of internal control over financial reporting of ARRIS International plc, included in this Annual Report (Form 10-K) of ARRIS International plc for the year ended December 31, 2017.

/s/ Ernst & Young LLP

Atlanta, Georgia  
March 1, 2018

**Certification Pursuant to § 302 of the Sarbanes-Oxley Act of 2002**

I, Bruce W. McClelland, certify that:

1. I have reviewed this annual report on Form 10-K of ARRIS International plc;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2018

/s/ BRUCE MCCLELLAND

---

Bruce W. McClelland  
Chief Executive Officer

**Certification Pursuant to § 302 of the Sarbanes-Oxley Act of 2002**

I, David B. Potts, certify that:

1. I have reviewed this annual report on Form 10-K of ARRIS International plc;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2018

/s/ DAVID B. POTTS

---

David B. Potts  
Executive Vice President,  
Chief Financial Officer and  
Chief Accounting Officer

**Certification Pursuant to § 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350)**

The undersigned, as the chief executive officer of ARRIS International plc, certifies that to the best of his knowledge the Annual Report on Form 10-K for the period ended December 31, 2017, which accompanies this certification, fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and the information contained in the annual report fairly presents, in all material respects, the financial condition and results of operations of ARRIS International plc at the dates and for the periods indicated. The foregoing certification is made pursuant to § 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350) and shall not be relied upon for any other purpose.

Dated this 1st day of March, 2018.

/s/ BRUCE MCCLELLAND

Bruce W. McClelland  
Chief Executive Officer

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act, has been provided to ARRIS International plc, and will be retained by ARRIS International plc, and furnished to the Securities and Exchange Commission or its staff upon request.

**Certification Pursuant to § 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350)**

The undersigned, as the chief financial officer of ARRIS International plc, certifies that to the best of his knowledge the Annual Report on Form 10-K for the period ended December 31, 2017, which accompanies this certification, fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and the information contained in the annual report fairly presents, in all material respects, the financial condition and results of operations of ARRIS International plc at the dates and for the periods indicated. The foregoing certification is made pursuant to § 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350) and shall not be relied upon for any other purpose.

Dated this 1st day of March, 2018.

/s/ DAVID B. POTTS

David B. Potts  
Executive Vice President,  
Chief Financial Officer, and  
Chief Accounting Officer

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act, has been provided to ARRIS International plc, and will be retained by ARRIS International plc, and furnished to the Securities and Exchange Commission or its staff upon request.