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

FORM 10-K

For the fiscal year ended December 31, 2016

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, 2016 was approximately \$4.0 billion (computed on the basis of the last reported sales price per share of such stock of \$20.96 on the NASDAQ Global Market System). For these purposes, directors, officers and 10% shareholders have been assumed to be affiliates.

As of January 31, 2017, 190,227,443 shares of ARRIS International plc's Ordinary Shares were outstanding.

Portions of ARRIS International plc's Proxy Statement for its 2017 Annual General Meeting of Stockholders are incorporated by reference into Part III.

TABLE OF CONTENTS

	<u>Page</u>
PART I	
ITEM 1. Business	1
ITEM 1A. Risk Factors	14
ITEM 1B. Unresolved Staff Comments	28
ITEM 2. Properties	28
ITEM 3. Legal Proceedings	29
ITEM 4. Mine Safety Disclosures	32
ITEM 4A. Executive Officers and Board Committees	33
PART II	
ITEM 5. Market for Registrant’s Common Equity, Related Stockholder Matters, Issuer Purchases of Equity Securities, and Stock Performance Graph	37
ITEM 6. Selected Consolidated Historical Financial Data	39
ITEM 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations ...	40
ITEM 7A. Quantitative and Qualitative Disclosures About Market Risk	75
ITEM 8. Consolidated Financial Statements and Supplementary Data	76
ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure ...	76
ITEM 9A. Controls and Procedures	76
ITEM 9B. Other Information	76
PART III	
ITEM 10. Directors, Executive Officers, and Corporate Governance	137
ITEM 11. Executive Compensation	137
ITEM 12. Security Ownership of Certain Beneficial Owners, Management and Related Stockholders Matters	137
ITEM 13. Certain Relationships, Related Transactions, and Director Independence	138
ITEM 14. Principal Accountant Fees and Services	138
PART IV	
ITEM 15. Exhibits and Financial Statement Schedules	139
ITEM 16. Form 10-K Summary	143
Signatures	144

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. 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
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
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
DTA	Digital Television Adapter
DVB	Digital Video Broadcasting

<u>Acronym</u>	<u>Terminology</u>
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
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
OLT	Optical Line Termination
ONU	Optical Network Unit
OEM	Original Equipment Manufacturer
OFDM	Orthogonal Frequency Domain Multiplexing

<u>Acronym</u>	<u>Terminology</u>
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
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

Overview

ARRIS, headquartered in Suwanee, Georgia, is a world leader in entertainment and communications technology. Our innovations combine hardware, software, and services across the cloud, network, and home to power TV and Internet for millions of people around the globe. The people of ARRIS collaborate with the world's top service providers, content providers, and retailers to advance the state of our industry and pioneer tomorrow's connected world. For more information, visit www.arris.com.

We operate in two business segments: Customer Premises Equipment (“CPE”) and Network & Cloud (“N&C”). 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. Our solutions are complemented by a broad array of services, including technical support, repair and refurbishment, and system design and integration.

Acquisitions

On January 4, 2016, we completed the acquisition of Pace (“the Combination”). 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 and Pace. We continue to operate in two business segments — Network & Cloud and Consumer Premises Equipment — and the former Pace operations are included in these segments.

On February 22, 2017, ARRIS, Broadcom Corporation, and a subsidiary of Broadcom entered into a Stock and Asset Purchase Agreement (“Purchase Agreement”), pursuant to which, upon the terms and subject to the satisfaction or waiver of the conditions in the Purchase Agreement, ARRIS will acquire Brocade Communication System Inc.’s Ruckus Wireless and ICX Switch business (the “Brocade Network Edge Business”) for approximately \$800 million in cash, subject to adjustment as provided in the Purchase Agreement. The acquisition is subject to the completion of the acquisition of Brocade by Broadcom.

Industry Overview

Entertainment and communications delivery is evolving rapidly as a result of a convergence of trends — including increased competition among service providers, industry consolidation, advances in technology, and shifts in global content consumption behaviors.

Video distribution over the broadband IP network is transforming how content is managed and consumed. IP not only facilitates new forms of video — like Over-the-Top TV (“OTT”) and interactive television — and the ways in which video is delivered, but also 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 explosion of Internet of Things (“IoT”) devices.

Providing these advanced services to consumers is a highly competitive business. This 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.

Operating Segments

We operate in two business segments, (1) Network & Cloud and (2) Customer Premises Equipment. 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 entertainment and communications that unites our vision and technological leadership with our customers’ evolving needs to transform the way that billions of people around the

world connect to the Internet and watch TV. Our long-term business strategy directly addresses 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 markets
- Exploiting the disruptive force of software virtualization and augmented with state-of-the-art hardware platforms
- Balancing both organic and inorganic investments to expand our business
- Enhancing the ARRIS brand

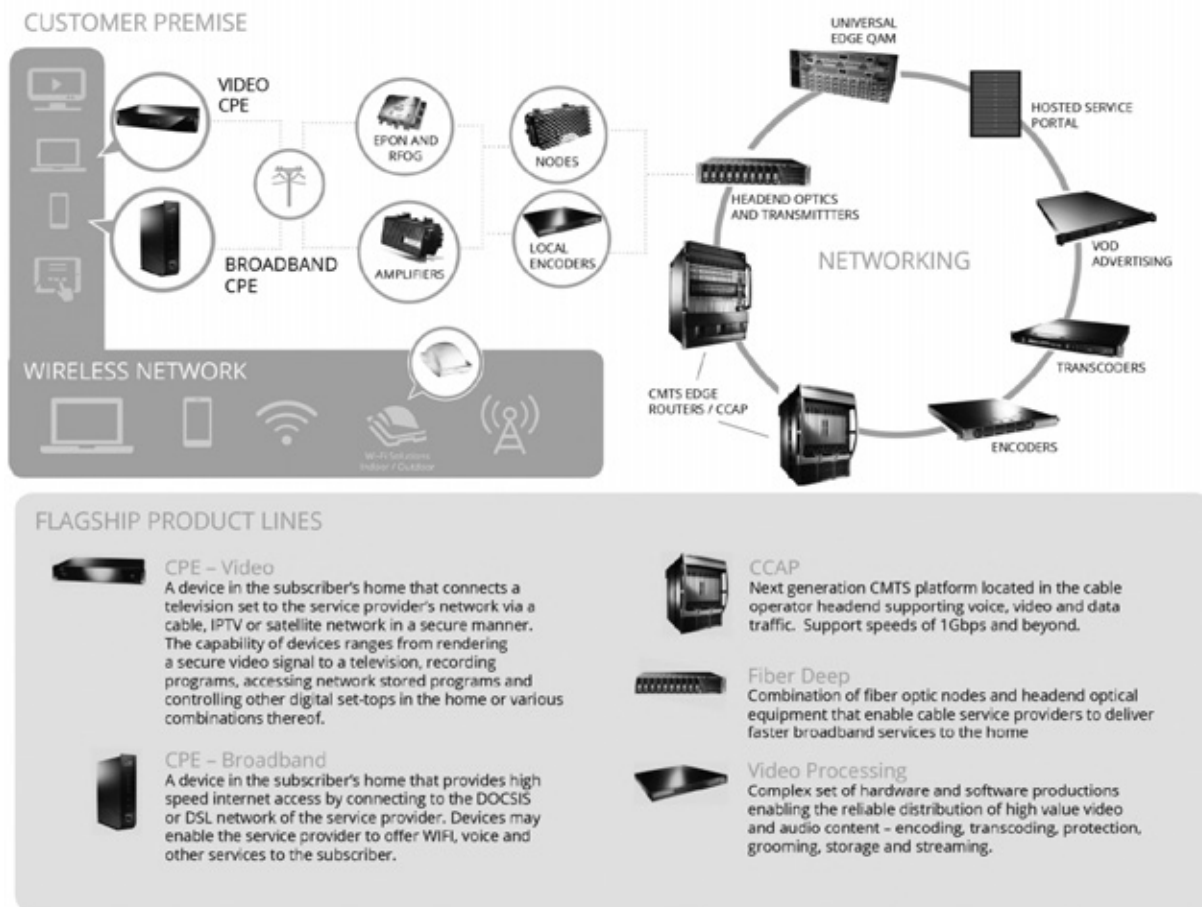
Specific aspects of our strategy include:

- ***Leveraging ARRIS's scale to drive profitable worldwide growth.*** Our comprehensive portfolio and global scale position enables ARRIS to serve the world's leading service providers and capitalize on their investments in technology.
- ***Enabling our service provider customers to provide the necessary broadband capacity to support 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.
- ***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 WIFI networks to access the highest internet speeds with the best content. ARRIS brings unparalleled experience to making residential WIFI 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 in the right opportunities to significantly expand our business. By leveraging our global scale and innovation around the world, we regularly seek 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 and broadband services in global markets. Some examples include the growth of digital video and HDTV in Canada, Latin America, Europe, the Middle East and Africa (“EMEA”) 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, and home to power TV and Internet for millions of people around the globe. A cross-section of our products in each of our two business segments, Network & Cloud and Customer Premises Equipment, is depicted below:



Customer Premises Equipment

- CPE Products — Video

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.

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.

- CPE Products — Broadband

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.

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, smart-phone, 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.

Network & Cloud

- Infrastructure Products

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
- 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.
- Cloud 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 vast amounts of 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.

Sales and Marketing

Our sales, sales engineering and technical services teams serve our global customers through offices in the U.S. and many of our global markets. We also work with value added resellers (“VARs”), sales representatives and channel partners that extend our sales presence into operator markets where we do not have established sales offices. We also maintain an inside sales group that is responsible for regular phone contact 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 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 brand 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

The majority of our sales are to facilities-based cable, telco and satellite multi-channel video service providers. As the global telecommunications industry continues a trend toward consolidation, our sales to the largest service providers are 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. Our three largest customers (including their affiliates, as applicable) are AT&T, Charter and Comcast. From time to time, the affiliates included in our revenues from these customers have changed as a result 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,		
	2016	2015	2014
AT&T and affiliates	\$ 901,001	\$ 347,063	\$ 612,412
% of sales	13.2%	7.2%	11.5%
Charter and affiliates	\$ 1,064,408 ⁽¹⁾	\$ 960,497	\$ 1,031,553
% of sales	15.6%	20.0%	19.4%
Comcast and affiliates	\$ 1,637,519 ⁽¹⁾	\$ 1,007,376	\$ 1,012,367
% of sales	24.0%	21.0%	19.0%

- (1) Revenues were reduced by \$30.2 million in total as a result 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 generally utilizes standard terms of sale. These standard terms of sale apply to all customer purchases, except those to a few of our large 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 AT&T, Charter and Comcast, based upon their needs or as a result 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 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, France, Germany, Great Britain, Hungary, Ireland, Israel, Netherlands, Norway, Poland, Portugal, Romania, Russia, Spain, South Africa, Sweden, Switzerland, Turkey 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 28.1%, 28.7%, and 25.7% of total revenues for 2016, 2015 and 2014, respectively.

We continue to strategically invest in worldwide marketing and sales efforts. We currently maintain international sales offices in Argentina, Australia, Brazil, Chile, China, France, Great Britain, Hong Kong, Japan, Korea, Mexico, Netherlands, South Africa, Spain and United Arab Emirates.

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 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 technology, monetizing future services like UHD, IoT, Gigabit Wi-Fi and multiscreen, 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 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; Suwanee, Georgia; and Wallingford, Connecticut, as well as internationally in Bangalore, India; Cork, Ireland; Linkoping, Sweden; Mississauga, Canada; Paris, France; Saltaire, United Kingdom; and Shenzhen, China.

Research and development expenses in 2016, 2015 and 2014 were approximately \$584.9 million, \$534.2 million and \$556.6 million, respectively. Research and development expenses as a percent of sales in 2016, 2015 and 2014 were approximately 8.6%, 11.1% and 10.5%, 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 2016, we continued to enhance our patent portfolio. We were awarded 204 patents and filed 455 patent applications. As of January 31, 2017, our intellectual property portfolio consisted of approximately 2,560 issued patents (both U.S. and foreign), including patents acquired in connection with the Pace acquisition, and we continue to pursue patent protection on new inventions (currently approximately 1,240 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, 2017, ARRIS had 588 registered or pending trademark registrations. 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 Taipei, 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 of purchase orders 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 manufacture a significant portion of our 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, 2016, the facility employed approximately 1,000 people. We manufacture a limited amount of video set-tops in Manaus, Brazil to serve the local market. The factory is 59,202 square feet, and, as of December 31, 2016, the facility employed approximately 150 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, 2016, the facility employed approximately 740 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 distribute a substantial number of products that are not produced by us in order 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, Germany and Japan, 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.

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, 2016 was approximately \$1,106.3 million, at December 31, 2015 was approximately \$715.8 million, and at December 31, 2014 was approximately \$631.0 million. We believe that all of the backlog existing at December 31, 2016 will be shipped in 2017.

Anticipated orders from customers may fail to materialize and delivery schedules may be deferred or cancelled for a 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;
- Asus;
- ATX;
- Belkin;
- BKTel;
- Casa Systems, Inc.;
- Cisco Systems, Inc.;
- Commscope, Inc.;
- Concurrent Computer Corporation;
- Emcore Corporation;

- Ericsson;
- Finisar;
- Guavus;
- Harmonic, Inc.;
- Hitron Technologies Americas Inc.;
- Huawei;
- Humax Co.;
- Imagine Communications
- 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.;
- 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 from manufacturers such as Casa, Nokia and Harmonic.

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 behind this global momentum and are responsible for providing service to millions of subscribers through the world’s leading service providers.

These network solutions are complemented by ARRIS’s worldwide leadership in CPE — including 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.

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, Teleste, Technetix and ZTE for network distribution and access equipment. In recent periods, competition in this market has increased from after-market 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 space.

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 2016, we continued our participation as an active member of the Electronic Industry Citizenship Coalition (“EICC”), 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 EICC 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).

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

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 UK 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, 2017, we had approximately 7,020 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 of 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:

- demands 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 regulation;
- 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.

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

During and following the recent United States presidential election campaign there has been 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 new 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 market in which we operate is intensely competitive, and competitive pressures may adversely affect our results of operations.

The markets in which we participate are dynamic, highly competitive and require companies to react quickly and capitalize on change. 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. The rapid technological changes occurring in the broadcast and broadband communications systems industry may lead to the entry of new competitors, including those with substantially greater resources than our own. Because the market in which we compete is characterized by rapid growth and, in some cases, low barriers to entry, smaller companies and start-up ventures also may become principal competitors in the future. Actions by existing competitors and the entry of new competitors may have an adverse effect on our sales and profitability. In the future, technological advances could lead to the obsolescence of some of our current products, which could have a material adverse effect on our business.

Further, several of our larger competitors may be in a better position to withstand any significant, sustained reduction in capital spending by customers. They often have broader product lines and segment focus and therefore are not as susceptible to downturns in a particular market. In addition, several of our competitors have been in operation longer than we have and therefore have more established relationships with customers.

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, Charter Communications, Inc. recently completed its acquisition of Time Warner Cable, AT&T recently completed its acquisition of DIRECTV, Verizon Communications Inc. sold certain wireline businesses to Frontier Communications Corp. and Altice recently completed its acquisition of Suddenlink and Cablevision. 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 following 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, 2016, we had approximately \$2,229.6 million in total indebtedness and \$498.0 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 of 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. As we have seen the U.S. dollar strengthen, it has impacted these customers' ability to purchase products. Further strengthening 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.

Because a significant portion of our customers' purchases are discretionary, accurately forecasting our sales is difficult. In addition, our customers in recent years have submitted their purchase orders less evenly over the course of each quarter and year, 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 too high or too low for our ultimate needs and could have a negative impact on our business.

We also have outstanding warrants with certain customers 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 increase in the fair value is treated as a reduction in revenues from sales to the customers. The amount of the reduction 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. 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.

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

Although, following the Pace transaction, we are incorporated under the laws of England and Wales and are a tax resident in the United Kingdom for UK 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 transaction, we believe historic ARRIS stockholders do own less than 80% of all of 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 transaction 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 UK tax purposes, we are expected, regardless of any application of Section 7874, to be treated as a UK 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 UK 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.

Recent legislative proposals have aimed to expand the scope of Section 7874, or otherwise address certain perceived issues arising in connection with so-called inversion transactions. For example, proposals introduced by certain members of both houses of the U.S. Congress that, if enacted in their present form, would be effective retroactively to any transactions completed after May 8, 2014 would, among other things, treat a foreign acquiring corporation as a U.S. corporation under Section 7874 if the former stockholders of the U.S. corporation own more than 50% (by vote or value) of the shares of the foreign acquiring corporation after the transaction. These proposals, if enacted in their present form and if made retroactively effective, would cause us to be treated as a U.S. corporation for U.S. federal income tax purposes. It is presently uncertain whether any such legislative proposals or any other legislation relating to Section 7874 or so-called inversion transactions will be enacted into law and, if so, what impact such legislation would have on us.

Additionally, on April 4, 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 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. 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, 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 it is expected that the Combination will otherwise be 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 referendum in favor of leaving the European Union could materially adversely affect our business.

On June 23, 2016, the UK voted in a national referendum to withdraw from the European Union. As a result of the vote, there has been significant uncertainty and instability in financial and trade markets, including the currency markets. The result of the referendum does not legally obligate the UK to exit the European Union, and it is not yet known whether, when or on what terms the UK will terminate its membership of the European Union. If the UK government delivers formal notice of its intention to withdraw from the European Union, it would have up to two years to negotiate the terms of its exit, unless all the remaining member states of the European Union agreed to an extension. Given the lack of precedent, it is unclear how a potential withdrawal of the UK from the European Union would affect the UK’s access to the EU Single Market and other important financial and trade relationships and how it would affect us. A withdrawal could, among other outcomes, disrupt the free movement of goods, services and people between the UK and the European Union, undermine bilateral cooperation in key policy areas and significantly disrupt trade between the UK and the European Union. Under current European Union rules, following a withdrawal the UK would not be able to negotiate bilateral trade agreements with member states of the European Union. In addition, a withdrawal of the UK from the European Union could significantly affect the fiscal, monetary, legal and regulatory landscape within the UK 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 a withdrawal of the UK from the European Union, the possible exit of the UK 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.

The broadcast and broadband communications system industry 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, 3-D 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, traditional providers are introducing similar services over their existing networks, as well as over-the-top IP video for delivery not only to televisions but to computers, tablets, and telephones in order 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.

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.

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

The broadcast and broadband communication systems industry has and will continue to demand products based on open standards. The move toward open standards is expected to increase the number of service 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 drive down the capital costs per subscriber deployed. 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 licenses. In some circumstances, ARRIS’s 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 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 few 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, 2016, sales to our three largest customers (including their affiliates, as applicable) accounted for approximately 53% 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.

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 announced Brocade Network Edge Business 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 plc and sold our whole-home solutions business, and in February 2017, we entered into an agreement to acquire the Brocade Network Edge Business from a subsidiary of Broadcom. 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 Brocade Network Edge Business acquisition will result in an expansion on our current technologies, and we intend to establish 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.

Uncertainties related to our proposed acquisition of the Brocade Network Edge Business may negatively affect our share price and our results of operations.

We have entered into an agreement to acquire the Brocade Network Edge Business. However, our acquisition is contingent on Broadcom Limited closing its own acquisition of Brocade Communication Systems Inc. (the current owner of the Network Edge Business). Broadcom's acquisition of Brocade is subject to its own closing conditions, and we cannot assure that those conditions will be met or that the transaction will close. The Brocade shareholders have approved the transaction, but Broadcom does not presently expect to close the Brocade acquisition until its third fiscal quarter ending July 30, 2017.

The Brocade Network Edge Business acquisition is also subject to clearance from governmental competition authorities, regulatory approvals in various jurisdictions and customary closing conditions, which could delay or prevent the completion of the acquisition. We intend to make various filings with the competition authorities, the Committee on Foreign Investment in the United States and other regulatory authorities and must either fulfill various waiting period obligations or obtain affirmative approvals. While we believe that we will receive the required clearances, there can be no assurance as to their receipt or timing. If the clearances are received, they may be conditioned in a way (i) that does not satisfy the conditions set forth in the acquisition agreement or (ii) that could have a detrimental impact on us following completion of the acquisition. A substantial delay in obtaining the required clearances or the imposition of unfavorable conditions, including a divestiture, could have an adverse effect on the anticipated benefits of the acquisition, thereby impacting our business, financial condition or results of operations or potentially preventing the completion of the acquisition entirely.

Uncertainty about the effect of the Brocade Network Edge Business acquisition on employees, customers and suppliers may have an adverse effect on us. In addition, if the acquisition is not completed, our ongoing businesses may be adversely affected and, without realizing any of the benefits of having consummated the acquisition, we will be subject to a number of risks which, if they materialize, might adversely affect our business, results of operation and share price, including without limitation costs and expenses relating to the proposed acquisition, including substantial commitments of time and resources by our management which could otherwise have been devoted to other opportunities beneficial to us.

We have substantial goodwill and amortizable intangible assets.

Our financial statements reflect substantial goodwill and intangible assets, approximately \$2.0 billion and \$1.7 billion, respectively, as of December 31, 2016, that was recognized in connection with acquisitions, including the recently completed Pace acquisition.

We annually (and more frequently if changes in circumstances indicate that the asset may be impaired) review the carrying amount of our goodwill in order 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.

While no goodwill or intangible asset impairments were recorded in 2016, 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 the former Pace operations during 2016. For example, we continue to evaluate the anticipated discounted cash flows from the Cloud software portion of our Network & Cloud segment. 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 \$81 million of goodwill and \$43 million of associated intangible assets. 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, may 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.

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.

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, 2016, approximately 28% of our sales were made outside of the United States. In addition, a significant portion of our products are manufactured or assembled in China, 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.

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 the second half of 2018. 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.

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. 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.

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.

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 do not intend to pay cash dividends in the foreseeable future.

We do not anticipate paying cash dividends on our ordinary shares in the foreseeable future. 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.

Prior to the Pace transaction, we were incorporated under Delaware law, which allowed our directors to authorize the issuance, without stockholder approval or any preemptive rights, of any shares authorized by our certificate of incorporation that were not already issued. 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 UK, 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 UK stamp duty.

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, 2016, we have approximately 60 principal leased facilities, 23 of which are located in North America and 37 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. With respect to two of the matters below, we estimate the aggregate range of loss for which a reasonable estimate can be made to be between \$0 and \$10.0 million. This estimate does not cover all matters listed below as we are currently unable to reasonably estimate the possible loss or range of possible loss for each of the remaining identified matters. 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.

In re Altibox, On June 26, 2016, Altibox sent a claim letter against Pace Ltd (now ARRIS Global Ltd) for gross negligence in performance under its contract with Pace. The complaint requests monetary damages allegedly compensating losses to Altibox in excess of the contractual damages limitations. To date, no claim has been officially filed, and it is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, ARRIS Global Ltd. may be required to pay damages under Norwegian law.

Anza Technology v. ARRIS, C.A. 16-cv-01261, Southern District of California. On May 26, 2016, Anza Technology filed suit against ARRIS for infringement of two U.S. patents purportedly related to flip-chip bonding technology. The complaint was dismissed for failure to state a claim, but has been refiled with a third amended complaint. We have again moved to dismiss for failure to state a claim. 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.

Bear Creek Technologies v. MSOs, C.A. 2:11-cv-00103, District of Delaware. On February 22, 2011, Bear Creek sued MSOs, telcos and other VoIP service providers for infringement of US Patent No. 7,889,722, relating to EMTAs. Certain of our customers have requested that we provide indemnification. The complaint requests unspecified damages for past infringement and injunction against future infringement. This case was

stayed pending reexamination of the patent by the United States Patent and Trademark Office. In reexamination the Patent and Trademark Office held all claims invalid, and an appeal of that holding is currently pending with the Patent Trial and Appeals Board. To date, no evidence of 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.

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 has been instituted and a hearing on the case was held on April 26, 2016. 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 has filed an appeal of the PTAB decision, 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.

Pace c/ Copie France, RG N°14/02114, Court of First Instance of Nanterre (*Tribunal de Grande Instance de Nanterre*). On August 17, 2015, Copie France filed suit against Pace France and Sagemcom Broadband SAS, on a subsidiary basis, in connection with a litigation matter against Canal+, claiming the collection of private copy levies for allegedly misclassified devices put into service by Canal+. By filing suit on a subsidiary basis against Pace France, it will permit Copie France to seek recovery from Pace France in the event its claims against Canal+ are rejected. It is premature to assess the likelihood of an unfavorable outcome. In the event of an unfavorable outcome, an ARRIS subsidiary may be required to pay damages to Copie France.

Dragon Intellectual Property v. MSOs, C.A. 13-cv-02069; 13-cv-02063, etc., District of Delaware (RGA). On December 20, 2013, Dragon IP filed suit against several MSOs alleging infringement of US Patent No. 5,930,444. Certain of our customers have requested that we provide indemnification. Claim construction obviated the plaintiff's assertions against ARRIS products. A Petition for Inter Partes Review of the asserted patent resulted in all instituted claims being ruled to be invalid. The patent owner is appealing the claim construction and invalidity rulings. 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.

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.

MediaTube et al v. Bell Canada et al, C.A. T-705-13, *Canadian Federal Court*. On April 23, 2013, MediaTube Corp. filed a claim against Bell Canada entities alleging infringement of a Canadian patent. The complaint requests damages for past and future infringement. On January 4, 2017 the Federal Court of Canada dismissed the MediaTube claims in their entirety and awarded costs to Bell Canada. MediaTube is appealing the decision. While we believe the likelihood of an unfavorable outcome is remote, in the event of an unfavorable outcome, ARRIS may be required to indemnify Bell Canada and/or pay damages for utilizing certain technology.

Mobile Telecommunications Technologies (M-Tel) v. MSOs, C.A. 16-cv-00007, 16-cv-0013, etc., Eastern District of Texas. ***ARRIS v. M-Tel***, C.A. 16-cv-00259, District of Delaware. On January 4, 2016, Mobile Telecommunications Technologies filed suit against several MSOs alleging infringement of three expired U.S. patents alleged to cover various Wi-Fi functionality. Certain of our customers have requested that we provide indemnification. The M-Tel complaint requests unspecified damages for past infringement. On April 13, 2016, ARRIS filed suit against M-Tel requesting an advisory ruling on three expired U.S. patents alleged to cover various Wi-Fi functionality and asserted against our customers. The cases have been consolidated for pre-trial in a multi-district litigation proceeding in the District of Delaware. 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 one or more MSOs and/or pay damages for utilizing certain technology.

In the matter of Certain Digital Television Set-Top Boxes, Remote Control Devices, and Components Thereof, 337-TA-3195, International Trade Commission. On January 26, 2017, Kudelski and its subsidiaries filed a complaint with the International Trade Commission (ITC) alleging infringement of three U.S. patents. 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 and/or cease utilizing certain technology in products sold to Comcast.

Rovi et al. v. Comcast et al., C.A. 2:16-cv-00321, 2:16-cv-00322, Eastern District of Texas; 337-TA-3135, 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 '322 suit). The ITC hearing was held in December, and an initial determination is due by April 28, 2017. 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 and/or cease utilizing certain technology in products sold to Comcast.

Sprint Communications v. MSOs, C.A. 11-cv-2686, 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. To date, no evidence of 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. With respect to any liability attributable to Motorola Home in this matter, a subsidiary of Google has agreed to indemnify ARRIS.

Sony Corp. v. Pace plc et al., C.A. 15-cv-00288, District of Delaware. On April 1, 2015, Sony filed suit against Pace alleging infringement of six U.S. patents alleged to cover various features of the set top box. The complaint requests unspecified damages for past 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 and/or cease utilizing certain technology.

In the Matter of Certain Semiconductor Devices, Semiconductor Device Packages, and Products Containing Same, 337-TA-1010, International Trade Commission. On May 23, 2016, Tessera filed a request to institute an investigation with the International Trade Commission (ITC) into whether Broadcom semiconductor devices infringe several patents purportedly controlled by Tessera. ARRIS has been named a party to the investigation as a potential importer of devices including the allegedly infringing components. On June 20, 2016, the ITC instituted the investigation. 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 cease importing certain Broadcom technology in products sold to its customers.

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. 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, ARRIS 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, ARRIS may be required to pay damages for utilizing certain technology.

Two Way Media v. Bell Canada et al, C.A. T-809-14, Canadian Federal Court. On April 2, 2014, Two Way Media filed a claim against Bell Canada entities alleging infringement of a Canadian patent. Bell Canada has 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 Bell Canada and/or 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, ARRIS may be required to indemnify AT&T 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, 2017, and position of our executive officers.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Bruce W. McClelland	50	Chief Executive Officer
Robert J. Stanzione	69	Executive Chairman and Chairman of the Board of Directors
David B. Potts	59	Executive Vice President and Chief Financial Officer
Lawrence Robinson	49	President, Customer Premises Equipment
Daniel T. Whalen	49	President, Network & Cloud
Ronald M. Coppock	62	Executive Vice President, Global Marketing & Customer Operations
Stephen McCaffery	50	President, International Sales & Managing Director, International Business Operations Group
Timothy O'Loughlin	43	President, North American Sales
James R. Brennan	55	Senior Vice President, Supply Chain & Quality
Philip C. Baldock	41	Senior Vice President, Chief Information Officer
Patrick W. Macken	43	Senior Vice President, General Counsel and Secretary
Victoria P. Brewster	54	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. Stanzione 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. Stanzione is a Board Member of the National Cable & Telecommunications Association (NCTA) and The Cable Center Board of Directors. Mr. Stanzione 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.

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.

Ronald M. Coppock is Executive Vice President, Global Marketing and Customer Operations. In this role, Mr. Coppock leads the alignment of ARRIS's global marketing and sales strategies. Mr. Coppock is also responsible for driving the company's overall business and market development, enabling its next stage of growth.

Previously, Mr. Coppock served as President of International Sales and Global Marketing following ARRIS's acquisition of Pace plc. At ARRIS, Mr. Coppock was President of Worldwide Sales and Marketing.

Prior to ARRIS, Mr. Coppock held leadership positions in sales and marketing — including Senior Vice President International, TSX Texscan; Director of Marketing, Westcott Communications Private Television Networks; Western Regional Director, Scientific-Atlanta Network Systems and Satellite Communications Group; and Director, National Accounts, Pioneer.

Mr. Coppock has a Bachelor's degree in Business Administration & Marketing from Auburn University. He is an active member of the American Marketing Association and Auburn School of Business Alumni Association. He is a member of the Cable TV Pioneers, serves on the Cystic Fibrosis Foundation Board, and sits on the advisory board for the National Incarceration Association.

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 the company's 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 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, 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
2015		
First Quarter	\$31.42	\$23.38
Second Quarter	34.22	24.76
Third Quarter	35.83	28.22
Fourth Quarter	30.99	23.71
2016		
First Quarter	\$31.25	\$20.27
Second Quarter	26.00	20.05
Third Quarter	29.54	21.03
Fourth Quarter	31.50	25.78

We have not paid cash dividends on our stock since our inception.

As of January 31, 2017, there were 60 record holders of our ordinary shares (with an estimated approximately 51,000 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, 2016:

Period	Total Number of Shares Purchased ⁽¹⁾	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs (in thousands)
October 2016	—	\$ —	—	121,964
November 2016	102	\$29.17	—	121,964
December 2016	5,265	\$30.44	—	121,964

- (1) All purchased shares were subject to equity awards that were cancelled for cash to satisfy minimum tax withholding obligations that arose on the vesting of shares of restricted stock units.

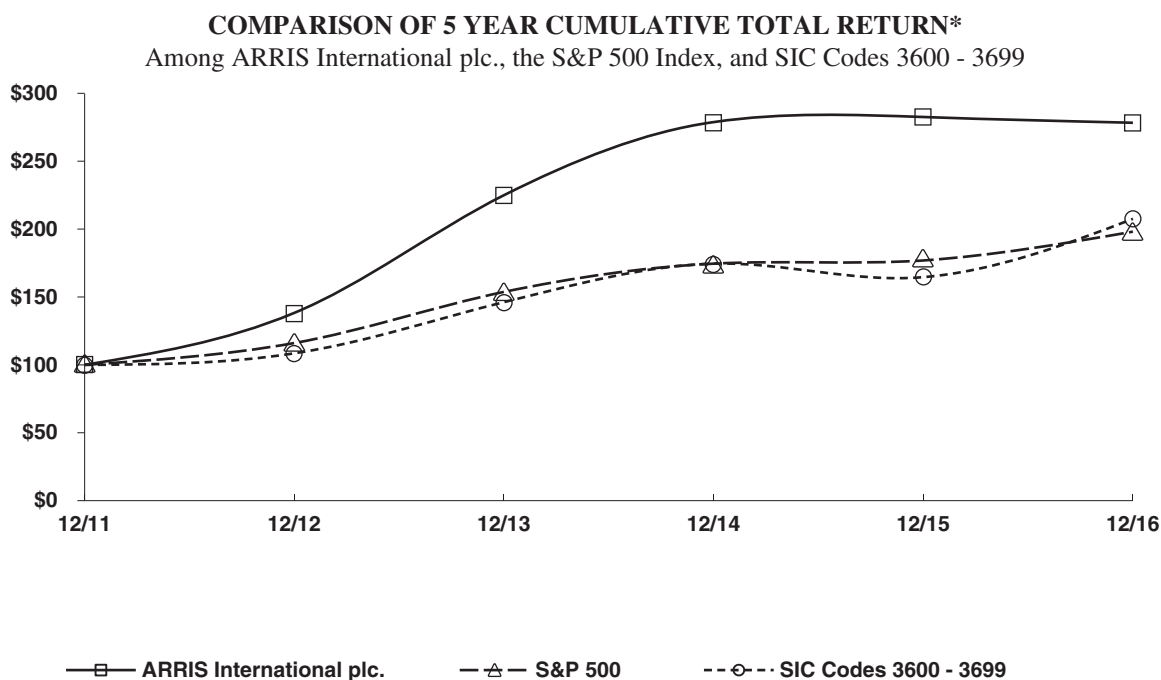
Upon completing the Combination, ARRIS International plc conducted a court-approved process in accordance with section 641(1)(b) of the UK Companies Act 2006, pursuant to which we reduced our stated share capital and thereby increased our distributable reserves or excess capital out of which ARRIS may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

In early 2016, the Board approved a \$300 million share repurchase authorization replacing all prior programs.

During the fiscal year of 2016, we repurchased 7.4 million shares of our common stock for \$178.0 million at an average stock price of \$24.09. The remaining authorized amount for stock repurchases under this plan was \$122.0 million as of December 31, 2016. Unless terminated earlier by a Board resolution, this new plan will expire when ARRIS has used all authorized funds for repurchase.

Stock Performance Graph

Below is a graph comparing total stockholder return on the Company's stock from December 31, 2011 through December 31, 2016, 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 12/31/11 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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	12/11	12/12	12/13	12/14	12/15	12/16
ARRIS International plc.	100.00	138.08	224.95	279.02	282.53	278.47
S&P 500	100.00	116.00	153.58	174.60	177.01	198.18
SIC Codes 3600 — 3699	100.00	108.23	146.04	174.56	164.49	207.59

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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, 2016 and 2015 and for each of the three years in the period ended December 31, 2016 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, 2014, 2013, and 2012 and for the years ended December 31, 2013 and 2012 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.

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 2016 and 2015 (in thousands, except per share data).

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>
Consolidated Operating Data:					
Net sales	\$6,829,118	\$4,798,332	\$5,322,921	\$3,620,902	\$1,353,663
Cost of sales	<u>5,121,501</u>	<u>3,379,409</u>	<u>3,740,425</u>	<u>2,598,154</u>	<u>891,086</u>
Gross margin	1,707,617	1,418,923	1,582,496	1,022,748	462,577
Selling, general, and administrative expenses	454,190	417,085	410,568	338,252	161,338
Research and development expenses	584,909	534,168	556,575	425,825	170,706
Amortization of intangible assets	397,464	227,440	236,521	193,637	30,294
Integration, acquisition, restructuring and other costs	<u>160,337</u>	<u>29,277</u>	<u>37,498</u>	<u>83,047</u>	<u>12,968</u>
Operating income (loss)	110,717	210,953	341,334	(18,013)	87,271
Interest expense	79,817	70,936	62,901	67,888	17,797
Loss (gain) on investments	21,194	6,220	10,961	2,698	(1,404)
(Gain) loss on foreign currency	(13,982)	20,761	2,637	(3,502)	786
Interest income	(4,395)	(2,379)	(2,590)	(2,936)	(3,242)
Other expense (income), net	<u>3,991</u>	<u>8,362</u>	<u>28,195</u>	<u>13,989</u>	<u>(962)</u>
Income (loss) before income taxes	24,092	107,053	239,230	(96,150)	74,296
Income tax expense (benefit)	<u>15,131</u>	<u>22,594</u>	<u>(87,981)</u>	<u>(47,390)</u>	<u>20,837</u>
Consolidated net income (loss)	8,961	84,459	327,211	(48,760)	53,459
Net loss attributable to noncontrolling interest	<u>(9,139)</u>	<u>(7,722)</u>	<u>—</u>	<u>—</u>	<u>—</u>
Net income (loss) attributable to ARRIS International plc.	<u>\$ 18,100</u>	<u>\$ 92,181</u>	<u>\$ 327,211</u>	<u>\$ (48,760)</u>	<u>\$ 53,459</u>
Basic	\$ 0.09	\$ 0.63	\$ 2.27	\$ (0.37)	\$ 0.47
Diluted	\$ 0.09	\$ 0.62	\$ 2.21	\$ (0.37)	\$ 0.46
Selected Balance Sheet Data:					
Total assets	\$7,758,362	\$4,523,516	\$4,341,042	\$4,287,129	\$1,404,935
Long-term obligations	\$2,697,491	\$1,669,925	\$1,646,604	\$1,880,594	\$ 74,385

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

Overview

ARRIS is a leader in entertainment and communications technology. Our innovations combine hardware, software, and services across the cloud, network, and home to power TV and Internet for millions of people around the globe. The people of ARRIS collaborate with the world's top service providers, content providers, and retailers to advance the state of our industry and pioneer tomorrow's connected world.

We are headquartered in Suwanee, Georgia. We operate in two business segments: Customer Premises Equipment and Network & Cloud. We enable service providers including cable, telephone, and 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 associated 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.

On January 4, 2016, ARRIS Group, Inc. completed its Combination with Pace, a company incorporated in England and Wales. In connection with the Combination, (i) ARRIS acquired all of the outstanding ordinary shares of Pace and (ii) a wholly-owned subsidiary of ARRIS was merged with and into ARRIS Group, with ARRIS Group surviving the merger as an indirect wholly-owned subsidiary of ARRIS. Under the terms of the Combination, (a) Pace shareholders received 132.5 pence in cash and 0.1455 ordinary shares of ARRIS for each Pace Share they held, and (b) ARRIS Group stockholders received one ordinary share of ARRIS for each share of ARRIS Group common stock they held.

Following the Combination, both ARRIS Group and Pace became indirect wholly-owned subsidiaries of ARRIS. The ordinary shares of ARRIS trade on The NASDAQ Stock Market LLC under the symbol "ARRS." In addition, while ARRIS is incorporated under the laws of England and Wales, our corporate headquarters remain in Suwanee, Georgia. Following the Combination, we continued to operate in two business segments with the former Pace products included in our Network & Cloud and Consumer Premises Equipment segments.

On February 22, 2017, ARRIS, Broadcom Corporation, and a subsidiary of Broadcom entered into a Stock and Asset Purchase Agreement ("Purchase Agreement"), pursuant to which, upon the terms and subject to the satisfaction or waiver of the conditions in the Purchase Agreement, ARRIS will acquire the Brocade Network Edge Business for approximately \$800 million in cash, subject to adjustment as provided in the Purchase Agreement. The acquisition is subject to the completion of the acquisition of Brocade by Broadcom.

Business and Financial Highlights:

Business Highlights

- Completed the acquisition of Pace in January 2016 and substantially completed operational integration.
- Re-domiciled to the United Kingdom resulting in a lower expected overall effective tax rate.
- Grew revenues 42% over 2015, primarily as the result of the Combination.
- Executed warrant agreements with two significant customers by which the customers may acquire shares in ARRIS once they achieve predetermined revenue targets by segment.

Financial Highlights

- Sales in 2016 were \$6,829.1 million as compared to \$4,798.3 million in 2015, an increase of 42.3% reflecting the impact of the Combination.
- In the fiscal year of 2016, we recorded \$30.2 million of non-cash charges as a reduction in revenue related to our warrant programs.

- Gross margin percentage was 25.0% in 2016, compared to 29.6% in 2015.
- Total operating expenses (excluding amortization of intangible assets, integration, acquisition, restructuring and other costs) in the 2016 were \$1,039.1 million, as compared to \$951.3 million in the same period last year. This increase reflects the increased size of the Company as a result of the Combination.
- We ended 2016 with \$1,106.7 million of cash, cash equivalents, and marketable security investments, which compares to \$879.1 million at the end of 2015. We generated approximately \$362.5 million of cash from operating activities in 2016 and \$343.9 million during 2015.
- We ended 2016 with long-term debt of \$2,229.6 million, at face value, the current portion of which is \$89.5 million. We repaid \$79.5 million of our Term Loans under our credit facility and \$240.2 million of indebtedness assumed in the Combination in 2016.
- During 2016, we used \$178.0 million of cash to repurchase 7.4 million shares of our ordinary shares at an average price of \$24.09 per share.

Industry Conditions

Global macro-economic conditions improved in 2016 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 2017 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 2017.

Consolidation of Customers Has Occurred and May Continue — Altice completed its acquisition of Cablevision in June 2016. Liberty Global completed its acquisition of Cable & Wireless in May 2016. Charter completed its acquisition of Time Warner Cable and BrightHouse in May 2016. In April 2016, Frontier Communications completed its acquisition of certain Verizon properties. We believe our acquisition of Pace positions us favorably 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 in order to diversify their supplier base.

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.

Foreign Exchange Fluctuations Have and May Continue to Impact Demand — The majority of our international sales are denominated in U.S. dollars. As a result of the strengthening of the U.S. dollar, our international customers have and may continue to experience greater costs in converting their local currencies to US dollars to purchase our products. 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.

Impacts of regulatory changes — The FCC recently adopted new “net neutrality” regulations that, among other things, subject Internet service providers to common carriage regulation under Title II of the Communications Act. These regulations have been appealed in federal court. In September 2016, the FCC proposed new rules intended to impose new technology mandates on multichannel video programming distributors (“MVPDs”) that would include many of our customers aimed at enabling retail video devices to access MVPD services without the need for an operator-supplied set-top box. While this proposal has now been dropped by the FCC, if a similar proposal is proposed and implemented by the FCC or Congress, such mandates could result in our customers reducing their investment in their networks and in the development and deployment of new set-top boxes and/or increase the number of companies that we compete with.

Competition from Non-Cable and Telecom Service Providers — OTT TV continues to gain traction with consumers through providers like Netflix and Hulu. This is driving two key service provider trends: 1) new demand for higher bandwidth, and 2) increasing pressure to integrate OTT into traditional TV services. Both of these trends support ARRIS’s business, which provides both the infrastructure and CPE to deliver new hybridized services over IP.

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.

Content Navigation and Personalization — As the library of available media continues to grow, consumers are having a harder time finding what they’re looking for, and service providers are facing new pressure to simplify the experience. ARRIS is collaborating with the world’s leading providers to solve these challenges through a combination of technology for content navigation and personalization. This technology can tailor content selection, searches, and recommendations to consumers’ preferences, saving them time in deciding what to watch, and then personalizing that experience by delivering it whenever they want and on their device of choice. By making content navigation more proactive and personalized, ARRIS believes that providers can anticipate consumers’ needs and enable them to spend more time watching and less time scrolling through content.

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 Remote PHY 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 (“RDK”) 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.

Consolidation of ARRIS Supply Chain Has Occurred and May Continue — 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 service provider customers.

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, but we have not historically been able to participate in Enterprise wireless networks nor Service Provider wireless public access (e.g. hot spots) opportunities. However, with the recently announced plan to acquire the Brocade Network Edge Business from Broadcom, if completed, we will have a portfolio of Access Points, Controllers, Cloud Management, and Data Analytics.

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,		
	2016	2015	2014
Net sales	100.0%	100.0%	100.0%
Cost of sales	<u>75.0</u>	<u>70.4</u>	<u>70.3</u>
Gross margin	25.0	29.6	29.7
Operating expenses:			
Selling, general, and administrative expenses	6.7	8.7	7.7
Research and development expenses	8.6	11.1	10.5
Amortization of intangible assets	5.8	4.8	4.4
Integration, acquisition, restructuring and other costs	<u>2.3</u>	<u>0.6</u>	<u>0.7</u>
Operating income	1.7	4.4	6.4
Other expense (income):			
Interest expense	1.2	1.5	1.2
Loss on investments	0.3	0.1	0.2
(Gain) Loss on foreign currency	(0.2)	0.5	0.1
Interest income	(0.1)	(0.1)	(0.1)
Other expense, net	<u>0.1</u>	<u>0.2</u>	<u>0.5</u>
Income before income taxes	0.3	2.2	4.5
Income tax expense (benefit)	<u>0.2</u>	<u>0.5</u>	<u>(1.6)</u>
Consolidated net income	0.1%	1.7%	6.1%
Net loss attributable to noncontrolling interest	<u>(0.1)</u>	<u>(0.2)</u>	<u>—</u>
Net income attributable to ARRIS International plc.	<u>0.2%</u>	<u>1.9%</u>	<u>6.1%</u>

Comparison of Operations for the Three Years Ended December 31, 2016

Net Sales

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

	Net Sales			Increase (Decrease) Between Periods			
	For the Years Ended December 31,			2016 vs. 2015		2015 vs. 2014	
	2016	2015	2014	\$	%	\$	%
<i>Business Segment:</i>							
CPE	\$4,747,445	\$3,136,585	\$3,690,454	\$1,610,860	51.3%	\$(553,869)	(15.0)%
N&C	2,111,708	1,661,594	1,637,544	450,114	27.1%	24,050	1.5%
Other	<u>(30,035)</u>	<u>153</u>	<u>(5,077)</u>	<u>(30,188)</u>	(19,730.7)%	<u>5,230</u>	103.0%
Total sales	<u>\$6,829,118</u>	<u>\$4,798,332</u>	<u>\$5,322,921</u>	<u>\$2,030,786</u>	42.3%	<u>\$(524,589)</u>	(9.9)%

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,			2016 vs. 2015		2015 vs. 2014	
	2016	2015	2014	\$	%	\$	%
Domestic — U.S	\$4,909,698	\$3,418,583	\$3,957,203	1,491,115	43.6%	\$(538,620)	(13.6)%
International:							
Americas, excluding							
U.S	982,769	880,581	900,822	102,188	11.6%	(20,241)	(2.2)%
Asia Pacific	291,504	142,893	147,921	148,611	104.0%	(5,028)	(3.4)%
EMEA	645,147	356,275	316,975	288,872	81.1%	39,300	12.4%
Total international	<u>\$1,919,420</u>	<u>1,379,749</u>	<u>1,365,718</u>	<u>539,671</u>	<u>39.1%</u>	<u>14,031</u>	<u>1.0%</u>
Total sales	<u>\$6,829,118</u>	<u>\$4,798,332</u>	<u>\$5,322,921</u>	<u>\$2,030,786</u>	<u>42.3%</u>	<u>\$(524,589)</u>	<u>(9.9)%</u>

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 is primarily attributable to expansion of both video and broadband products resulting from the 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 is primarily a result of the Combination and increased customer spend as service providers increase their investment to expand broadband network capacity and high speed data Internet access speeds.

Customer Premises Equipment Net Sales 2015 vs. 2014

During the year ended December 31, 2015, sales of our CPE segment decreased by approximately \$553.9 million, or 15.0%, as compared to 2014. CPE sales declined primarily as a result of lower video CPE product sales compared to the prior year. The decline was driven by sales of new product introductions and platform transitions implemented by certain customers during 2014, which did not recur, as well as telco customer subscriber growth challenges in 2015 as several of these customers look to reevaluate or change their video strategy. This was partially offset by growth in sales of broadband CPE products.

Network & Cloud Net Sales 2015 vs. 2014

During the year ended December 31, 2015, sales in the N&C segment increased by approximately \$24.1 million, or 1.5%, as compared to 2014. Net sales of professional services increased \$40.3 million compared to the prior year. The increase year over year was a result of the growing pipeline of professional services projects during 2015. Net sales of Cloud increased \$11.7 million compared to 2014, primarily due to the addition of ActiveVideo in 2015. Net sales of infrastructure equipment decreased \$27.9 million compared to the prior year. The decrease reflects higher shipments in the second half of 2014 resulting from the launch of the E6000 CCAP platform, offset by increases in distribution and transmission equipment sales.

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,			2016 vs. 2015		2015 vs. 2014	
	2016	2015	2014	\$	%	\$	%
Gross margin dollars	\$1,707,617	\$1,418,923	\$1,582,496	288,694	20.3%	(163,573)	(10.3)%
Gross margin	25.0%	29.6%	29.7%		(4.6)		(0.1)

During the year ended December 31, 2016, gross margin dollars increased primarily as a result of the Combination as compared to 2015. The gross margin percentage decreased primarily as a result of 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 have 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 (subsequently increasing cost of goods sold). 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.

During the year ended December 31, 2015, gross margin dollars decreased as compared to the same period in 2014 primarily as a result of lower sales.

Looking forward to 2017, we expect modestly lower gross margins due to the introduction of new products, coupled with product cost pressure on commodity pricing such as memory and copper. Gross margins could be adversely impacted by as much as 100 to 200 basis points.

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,			2016 vs. 2015		2015 vs. 2014	
	2016	2015	2014	\$	%	\$	%
Selling, general & administrative	\$ 454,190	\$ 417,085	\$ 410,568	\$ 37,105	8.9%	\$ 6,517	1.6%
Research & development	584,909	534,168	556,575	50,741	9.5%	(22,407)	(4.0)%
Amortization of intangible assets	397,464	227,440	236,521	170,024	74.8%	(9,081)	(3.8)%
Integration, acquisition, restructuring & other	160,337	29,277	37,498	131,060	447.7%	(8,221)	(21.9)%
Total	<u>\$1,596,900</u>	<u>\$1,207,970</u>	<u>\$1,241,162</u>	<u>\$388,930</u>	32.2%	<u>\$(33,192)</u>	(2.7)%

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.

2016 vs. 2015

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

2015 vs. 2014

SG&A expenses increased for the year ended December 31, 2015 compared to the prior year. The increase was primarily due to \$8.5 million of incremental expense associated with the ActiveVideo acquisition, \$6.2 million increase in sales and marketing expenses and \$8.3 million increase in general and administrative expenses, offset by lower variable and other compensation expense of approximately \$16.5 million.

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.

2016 vs. 2015

The increase year-over-year in R&D expense reflects 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.

2015 vs. 2014

The decrease year-over-year in R&D expense reflects lower variable and other compensation expense of approximately \$17.2 million, \$5.3 million reduction in consulting fees, project related expenses and IT expenses, and lower depreciation expense of \$7.9 million, which were partially offset by \$7.0 million of incremental expense associated with the ActiveVideo acquisition.

Amortization of Intangible Assets

Our intangible amortization expense relates to finite-lived intangible assets primarily acquired in business combinations. Intangibles amortization expense was \$397.5 million in 2016, as compared with \$227.4 and \$236.5 million in 2015 and 2014, respectively. The increase in amortization expense was primarily attributable to intangible assets acquired in Combination (See Note 4 *Business Acquisitions* of Notes to the Consolidated Financial Statements for additional details).

Integration, Acquisition, Restructuring and Other Costs

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 2014, we recorded acquisition related expenses and integration expenses of \$34.1 million. These expenses primarily related to the acquisition of Motorola Home and consisted of integration related outside services and legal fees. The Company substantially completed its integration of the Motorola Home business in 2014.

During 2016, 2015 and 2014, we recorded restructuring charges of \$96.3 million, \$1.0 million and \$3.4 million, respectively. 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. The charge recorded in 2014 related to rationalization of facilities resulting in costs related to severance and employee termination benefits.

Other costs of \$10.8 million was recorded during 2016 of which \$1.1 million was related to the loss resulting from the divestitures of certain product lines, \$2.2 million was related to the write off of in-process research and development projects that were abandoned 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,			2016 vs. 2015		2015 vs. 2014	
	2016	2015	2014	\$	%	\$	%
<i>Segment:</i>							
CPE	\$ 684,744	\$ 548,840	\$ 791,244	\$135,904	24.8%	\$(242,404)	(30.6)%
N&C	681,608	487,166	430,943	194,442	39.9%	56,223	13.0%
Total	<u>\$1,366,352</u>	<u>\$1,036,006</u>	<u>\$1,222,187</u>	<u>\$330,346</u>	31.9%	<u>\$(186,181)</u>	(15.2)%

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 Combination, offset by higher R&D, also a result of the 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 Combination.

Customer Premises Equipment Direct Contribution 2015 vs. 2014

During 2015, direct contribution in our CPE segment decreased by approximately 30.6% as compared to the same period in 2014. The decrease was primarily attributable to lower sales as noted above.

Network & Cloud Direct Contribution 2015 vs. 2014

During 2015, direct contribution in our N&C segment increased by approximately 13.0% as compared to the same period in 2014. The increase was primarily attributable to sales of higher margin infrastructure products.

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.

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,			2016 vs. 2015		2015 vs. 2014	
	2016	2015	2014	\$	%	\$	%
Cost of sales	\$150,588	\$ 56,311	\$ 69,973	94,277	167.4%	\$(13,662)	(19.5)%
Selling, general & administrative expense	375,747	349,993	349,693	25,754	7.4%	300	0.1%
Research & development expenses	171,499	162,032	187,168	9,467	5.8%	(25,136)	(13.4)%
Total	<u>\$697,834</u>	<u>\$568,336</u>	<u>\$606,834</u>	<u>129,498</u>	<u>22.8%</u>	<u>\$(38,498)</u>	<u>(6.3)%</u>

During 2016, corporate and unallocated costs increased compared to 2015. The increase was primarily due to costs from the Pace combination. During 2016, cost of sales included \$51.4 million associated with the step-up in the underlying net book value of Pace inventory to fair market value as of the acquisition date.

During 2015, corporate and unallocated costs decreased compared to in 2014. The decrease was primarily due to lower variable compensation costs.

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,			2016 vs. 2015		2015 vs. 2014	
	2016	2015	2014	\$	%	\$	%
Interest expense	\$ 79,817	\$ 70,936	\$ 62,901	\$ 8,881	12.5%	\$ 8,035	12.8%
Loss on investments	21,194	6,220	10,961	14,974	240.7%	(4,741)	(43.3)%
(Gain) loss on foreign currency	(13,982)	20,761	2,637	(34,743)	(167.3)%	18,124	687.3%
Interest income	(4,395)	(2,379)	(2,590)	(2,016)	(84.7)%	211	8.1%
Other expense	3,991	8,362	28,195	(4,371)	(52.3)%	(19,833)	(70.3)%
Total other expense	<u>\$ 86,625</u>	<u>\$103,900</u>	<u>\$102,104</u>	<u>\$(17,275)</u>	<u>(16.6)%</u>	<u>\$ 1,796</u>	<u>1.8%</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 \$79.8 million in 2016, as compared with \$70.9 million and \$62.9 million in 2015 and 2014, respectively, reflecting the increase in debt resulting from the Combination.

Upon the closing of the 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, as described in more detail below, 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 Operations for the year ended December 31, 2015.

During 2014, optional debt pre-payments were made resulting in the accelerated write-off of deferred financing fees and debt discount of \$2.7 million.

Loss on Investments

From time to time, we hold certain investments in equity securities of private and publicly-traded companies, a number of non-marketable equity securities, and investments in rabbi trusts associated with our deferred compensation plans. In addition, we have certain investments in limited liability companies and partnerships that are accounted for using the equity method of accounting. As such our equity portion in current earnings of such companies is included in the loss (gain) on investments.

During the years ended December 31, 2016, 2015 and 2014, we recorded net losses on investment related to these investments of \$21.2 million, \$6.2 million and \$11.0 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 \$12.3 million, \$0.2 million and \$7.0 million during the year ended December 31, 2016, 2015 and 2014, respectively.

Loss (Gain) on Foreign Currency

During the years ended December 31, 2016, 2015 and 2014, we recorded net (gains) losses on foreign currency of \$(14.0) million, \$20.8 million and \$2.6 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 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, as of January 4, 2016. 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, 2016, 2015 and 2014, we recorded interest income of \$4.4 million, \$2.4 million and \$2.6 million, respectively.

Other Expense

Other expense for the years ended December 31, 2016, 2015 and 2014 were \$4.0 million, \$8.4 million and \$28.2 million, respectively.

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. During the fourth quarter of 2014, we recorded an expense of \$20.5 million related to this liability. During 2015, we recorded income of \$3.7 million as a result of a reduction of foreign tax credit attributes reducing previously recorded liability to Google from \$20.5 million 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.

For the year ended December 31, 2014, we recorded a \$2.1 million write-down in the carrying amount of land and building reclassified as held for sale as a result of obtaining a letter of intent for its sale and is included in other expense, net.

Income Tax Expense

Our annual provision for income taxes and determination of the deferred tax assets and liabilities require 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 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 Acquisition, 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 ActiveVideo 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%.

In 2014, we recorded (\$88.0) million of income tax benefit for U.S. federal and state taxes and foreign taxes, which was (36.8)% of our pre-tax income of \$239.2 million. The Company's effective income tax rate for 2014 was favorably impacted by \$176.5 million for the following items. The tax benefit was primarily due to the release of valuation allowances recorded for U.S. federal net operating losses, U.S. federal tax credits and from deferred tax assets recorded for state net operating losses and state research and development tax credits arising from the acquisition of the Motorola Home business from Google. In addition, \$18.1 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 through December 31, 2014. To assess the Company's ability to remove the valuation allowances recorded against certain deferred tax assets acquired in the Motorola Home acquisition, the Company was required to analyze the impact of the various tax rules which limit a Company's ability to utilize net operating losses and tax credits. The Company was also required to assess tax planning strategies to best allow for the utilization of the tax attributes. During the fourth quarter of 2014, the Company completed the required tax analysis and received the final information from Google as to the amounts and types of acquired deferred tax assets. Exclusive of these items, the effective income tax rate would have been approximately 29.6%.

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 2016		Year 2015		Year 2014	
	Amount	Per Diluted Share	Amount	Per Diluted Share	Amount	Per Diluted Share
Sales	\$6,829,118		\$4,798,332		\$5,322,921	
Highlighted items:						
Reduction in revenue related to warrants	30,158		—		—	
Acquisition accounting impacts of deferred revenue	—		—		5,091	
Adjusted Sales	<u>\$6,859,276</u>		<u>\$4,798,332</u>		<u>\$5,328,012</u>	
Net income attributable to ARRIS						
International plc	18,100	0.09	92,181	0.62	327,211	2.21
Highlighted Items:						
<i>Impacting gross margin:</i>						
Stock compensation expense	9,397	0.05	8,508	0.06	6,716	0.05
Reduction in revenue related to warrants	30,159	0.16	—	—	—	—
Acquisition accounting impacts of deferred revenue	—	—	—	—	3,448	0.02
Acquisition accounting impacts of fair valuing inventory	51,405	0.27	—	—	—	—
<i>Impacting operating expenses:</i>						
Integration, acquisition, restructuring and other costs	152,810	0.79	29,277	0.20	37,498	0.25
Amortization of intangible assets	397,464	2.07	227,440	1.52	236,521	1.60
Stock compensation expense	50,652	0.26	55,710	0.37	47,084	0.32
Noncontrolling interest share of Non-GAAP adjustments	(3,145)	(0.02)	(2,947)	(0.02)	—	—
<i>Impacting other (income)/expense:</i>						
Impairment of Investments	12,297	0.06	(9)	(0.00)	7,050	0.05
Debt amendment fees	(237)	(0.00)	15,342	0.10	—	—
Credit facility — ticking fees	(9)	(0.00)	1,700	0.01	—	—
Asset impairment	—	—	—	—	2,132	0.01
Foreign exchange contract losses related to Pace acquisition	1,610	0.01	22,283	0.15	—	—

	Year 2016		Year 2015		Year 2014	
	Amount	Per Diluted Share	Amount	Per Diluted Share	Amount	Per Diluted Share
Remeasurement of certain deferred tax liabilities	(16,356)	(0.09)	—	—	—	—
Adjustment to liability related to foreign tax credits	—	—	(3,669)	(0.02)	20,492	0.14
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 (benefit)	(208,524)	(1.08)	(128,864)	(0.86)	(279,135)	(1.88)
Total highlighted items	<u>532,264</u>	<u>2.77</u>	<u>229,913</u>	<u>1.54</u>	<u>81,806</u>	<u>0.55</u>
Adjusted net income	<u>550,364</u>	<u>2.86</u>	<u>322,094</u>	<u>2.16</u>	<u>409,017</u>	<u>2.76</u>
Weighted average common shares — basic		<u>190,701</u>		<u>146,388</u>		<u>144,386</u>
Weighted average common shares — diluted		<u>192,185</u>		<u>149,359</u>		<u>148,280</u>

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' 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 which acceptance has not been obtained, and 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 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, the Motorola Home and the Pace 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 consists 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.

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 with Charter for the acquisition of ActiveVideo is accounted for by ARRIS under the consolidation method. As a result, the consolidated statement of operations 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 statement of operations. 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 of Investments: We have excluded the effect of an other-than-temporary impairment of a cost method investment 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 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 a new term A-1 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 is 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).

Asset Impairment: In the second quarter of 2014, we entered into a contract to facilitate the sale of a building at less than its carrying amount. The asset was reclassified as held for sale and was measured at fair value less cost to sell. We have recorded an impairment charge to reduce the assets carrying amount to its estimated fair value less costs to sell in the period the held for sale criteria were met. We have excluded the effect of the asset held for sale impairment 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).

Foreign Exchange Contract Losses Related to Pace Acquisition: 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 acquisition. 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 Operations. We believe it is useful to understand the effect of this on our other expense (income).

Remeasurement of Certain Deferred Tax Liabilities: In the fourth quarter of 2016, the Company recorded a foreign currency remeasurement gain related to a deferred income tax liability, in the United Kingdom, arising from the assignment of intangibles acquired in the Pace acquisition. 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. We have excluded the impact of this gain 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 plc. 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 plc 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, Inc. 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, including access to the capital markets, 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,		
	2016	2015	2014
	(in thousands, except DSO and Turns)		
<i>Key Working Capital Items</i>			
Cash provided by operating activities	\$ 362,495	\$ 343,872	\$ 459,281
Cash, cash equivalents, and short-term investments	\$1,095,676	\$ 879,052	\$ 692,538
Long-term U.S corporate bonds	\$ 10,998	\$ —	\$ 4,867
Accounts Receivable, net	\$1,359,430	\$ 651,893	\$ 598,603
-Days Sales Outstanding	61	48	42
Inventory, net	\$ 551,541	\$ 401,592	\$ 401,165
- Turns	8.6	8.4	10.2
<i>Key Financing Items</i>			
Term loans at face value	\$2,229,563	\$1,509,063	\$1,547,563
Cash used for debt repayment	\$ 319,750	\$ 53,500	\$ 209,653
Financing lease obligation	\$ 58,010	\$ 58,687	\$ —
Cash used for share repurchases	\$ 178,035	\$ 24,999	\$ —
<i>Key Investing Items</i>			
Capital Expenditures	\$ 66,760	\$ 49,890	\$ 56,588

In managing our liquidity and capital structure, we remain are 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 & Inventory

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 increased at the end of 2016 as compared to 2015, primarily as a result of 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 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.

Inventory increased at the end of 2016 as compared to 2015, primarily as a result of the 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.

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

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.

Term Debt Repayments

In 2016, we repaid \$79.5 million of our term debt. Additionally, we repaid \$240.2 million of debt assumed and settled in conjunction with the Pace acquisition in January 2016.

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.

In 2014, we repaid \$209.7 million of debt, of which \$205.0 million related to our term debt, including a \$150 million of optional prepayment and \$4.7 million of debt assumed and settled in conjunction with the closing of the SeaWell acquisition in April 2014.

Financing Lease Obligation

In the first quarter of 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 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 early 2016, the Company's Board of Directors approved a \$300 million share repurchase authorization replacing all prior programs. During 2016, we repurchased 7.4 million of our ordinary shares for \$178.0 million at an average stock price of \$24.09. The remaining authorized amount for stock repurchases under this plan was \$122.0 million as of December 31, 2016. Unless terminated earlier by a Board resolution, this new plan will expire when ARRIS has used all authorized funds for repurchase.

During 2015, we repurchased 0.9 million shares of our stock for \$25.0 million at an average stock price of \$28.70. No repurchases were made under the previously adopted share repurchase plan in 2014.

Summary of Current Liquidity Position and Potential for Future Capital Raising

We believe our current liquidity position, where we had approximately \$1,106.7 million of cash, cash equivalents, short-term and long-term investments on hand as of December 31, 2016, together with approximately \$498.0 million in availability under our new 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, 2016 include approximately \$687.1 million held by all foreign subsidiaries of which \$61.7 million is held by foreign subsidiaries whose earnings we expect to reinvest indefinitely outside of the United States. We do not expect to need the cash generated by those foreign

subsidiaries to fund our domestic operations. However, in the unforeseen event that we repatriate cash from those foreign subsidiaries, in excess of what is owed to the United States parent, 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 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. 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.

We expect to use approximately \$800 million in cash from cash on hand, subject to adjustments, in connection with the Brocade Network Edge Business acquisition. Assuming a close date of June 2017, we anticipate having \$300 million to \$400 million of resources and an undrawn revolver of \$500 million post close, with continued access to capital markets.

Senior Secured Credit Facilities

On June 18, 2015, we amended and restated our existing credit agreement dated March 27, 2013 (the “Existing Credit Agreement”) 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 a new term A-1 loan facility to fund the Combination. The credit facility under the amended credit agreement (the “Amended Credit Agreement”) was entered into with Bank of America, N.A. and various other institutions, and is comprised of (i) a “Term Loan A Facility” of \$990 million, (ii) a “Term Loan B Facility” of \$543.8 million, (iii) a “Revolving Credit Facility” of \$500 million and (iv) a “Term Loan A-1 Facility” of \$800 million, which was funded upon the closing of the Combination. Under the Amended Credit Agreement, the Term Loan A Facility, Term Loan A-1 Facility and the Revolving Credit Facility will mature on June 18, 2020. The Term Loan B Facility will mature on April 17, 2020.

Interest rates on borrowings under the senior secured credit facilities are set forth in the table below. As of December 31, 2016, we had \$915.8 million, \$770.0 million and \$543.8 million principal amount outstanding under the Term Loan A, Term Loan A-1 and Term Loan B Facilities. No borrowings under the Revolving Credit Facility and letters of credit totaling \$2.0 million issued under the Revolving Credit Facility.

	<u>Rate</u>	<u>As of December 31, 2016</u>
Term Loan A	LIBOR + 1.75 %	2.52%
Term Loan A-1	LIBOR + 1.75 %	2.52%
Term Loan B	LIBOR ⁽¹⁾ + 2.75 %	3.52%
Revolving Credit Facility ⁽²⁾	LIBOR + 1.75 %	Not Applicable

(1) Includes LIBOR floor of 0.75%

(2) Includes unused commitment fee of 0.35% and letter of credit fee of 1.75% not reflected in interest rate above.

The Amended Credit Agreement provides for certain adjustments to the interest rates paid on the Term Loan A, Term Loan A-1, Term Loan B 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 Amended Credit Agreement governing the senior secured credit facilities. The Amended Credit

Agreement provides terms for mandatory prepayments and optional prepayments and commitment reductions. The Amended 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 Amended 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 of 3.50:1 and a maximum leverage ratio of 3.75:1 (with a scheduled decrease to 3.50:1 in the first quarter of 2017). As of December 31, 2016, we were in compliance with all covenants under the Amended Credit Agreement.

In connection with the Combination, ARRIS assumed an accounts receivable financing program (the “AR 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. As of December 31, 2016, we had no outstanding balance under this program.

The 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.

Commitments

Following is a summary of our contractual obligations as of December 31, 2016 (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 ⁽¹⁾	\$ 89,500	\$179,000	\$1,961,063	\$ —	\$2,229,563
Operating leases, net of sublease income ⁽²⁾	40,054	64,766	48,643	69,196	222,659
Purchase obligations ⁽³⁾	692,918	—	—	—	692,918
Total contractual obligations ⁽⁴⁾	<u>\$822,472</u>	<u>\$243,766</u>	<u>\$2,009,706</u>	<u>\$69,196</u>	<u>\$3,145,140</u>

(1) Represents face values of Term Loan A, A-1 and B

(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 \$109.7 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>2016</u>	<u>2015</u>	<u>2014</u>
<i>Cash provided by (used in):</i>			
Operating activities	\$ 362,495	\$343,872	\$ 459,281
Investing activities	(524,509)	(45,946)	(124,586)
Financing activities	290,652	(134)	(211,343)
Effect of exchange rate changes	(12,097)	—	—
Net increase in cash and cash equivalents	<u>\$ 116,541</u>	<u>\$297,792</u>	<u>\$ 123,352</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>2016</u>	<u>2015</u>	<u>2014</u>
Consolidated net income	\$ 8,961	\$ 84,459	\$ 327,211
Adjustments to reconcile net income (loss) to cash provided by operating activities	441,592	395,648	229,213
Net income including adjustments	450,553	480,107	556,424
(Increase) decrease in accounts receivable	(258,677)	(55,132)	16,796
(Increase) decrease in inventory	282,644	(6,685)	(71,036)
Increase (decrease) in accounts payable and accrued liabilities	(178,086)	15,065	(116,909)
All other, net	66,061	(89,483)	74,006
Cash provided by operating activities	<u>\$ 362,495</u>	<u>\$343,872</u>	<u>\$ 459,281</u>

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 increases 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

Combination. We acquired \$298.7 million of cash as part of the 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.

2015 vs. 2014

Consolidated net income including adjustments, as per the table above, decreased \$76.3 million during 2015 as compared to 2014 reflecting lower sales and gross margin.

Accounts receivable increased \$55.1 million in 2015. This increase was primarily a result of purchasing pattern and payment patterns of our customers. Some international customers have delayed payments as they dealt with exchange rate fluctuations for those purchases contracted in U.S. dollars. Additionally, in 2015, we have higher international accounts receivable. Customers internationally typically have longer payment terms.

Inventory increased by \$6.7 million in 2015, reflecting timing of customer requirements and anticipated demand for certain products.

Accounts payable and accrued liabilities increased by \$15.1 million in 2015. The significant component of this change was an increase in accounts payable reflecting timing of payments and an increase in deferred revenue, offset by a decrease in accrued liabilities reflecting lower annual bonus accrual, warranty claims paid as well as payment of the liabilities assumed during the ActiveVideo acquisition.

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 2015 was approximately \$89.5 million as compared to \$74.0 million in 2014.

Investing Activities:

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

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Purchases of property, plant and equipment	\$ (66,760)	\$ (49,890)	\$ (56,588)
Acquisitions, net of cash acquired	(340,118)	(97,905)	—
Purchases of investments	(141,543)	(48,566)	(127,780)
Sales of investments	25,931	161,824	59,679
Purchase of intangible assets	(5,526)	(39,340)	—
Proceeds from sale-leaseback transaction	—	24,960	—
Other, net	3,507	2,971	103
Cash used in investing activities	<u><u>\$(524,509)</u></u>	<u><u>\$(45,946)</u></u>	<u><u>\$(124,586)</u></u>

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

Acquisitions, net of cash acquired — Represents cash investments we have made in our various acquisitions.

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

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

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

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>2016</u>	<u>2015</u>	<u>2014</u>
Proceeds from issuance of debt	\$ 800,000	\$ —	\$ —
Payment of debt obligations	(319,750)	(53,500)	(209,653)
Payment of deferred financing fees and debt discount	(2,304)	(8,239)	—
Proceeds from sale-leaseback financing transaction	—	58,729	—
Payment of financing lease obligation	(758)	(425)	—
Payment on accounts receivable financing facility	(23,546)	—	—
Repurchase of shares	(178,035)	(24,999)	—
Proceeds from issuance of shares, net	12,885	16,189	19,196
Repurchase of shares to satisfy minimum tax withholdings	(17,925)	(46,680)	(29,845)
Excess tax benefits from stock-based compensation plans	20,085	3,997	8,959
Contribution from noncontrolling interest	—	54,794	—
Cash provided by (used in) financing activities	<u>\$ 290,652</u>	<u>\$ (134)</u>	<u>\$(211,343)</u>

Proceeds from issuance of debt — “Term Loan A-1 Facility” of \$800 million, which was funded upon the closing of the acquisition of Pace.

Payment of debt obligation — Represents the mandatory payment of the term loans under the senior secured credit facilities plus the payment of debt assumed and settled in conjunction with the closing of the Combination in 2016, ActiveVideo acquisition in 2015 and SeaWell acquisition in 2014.

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 Amended Credit Agreement. The costs have been deferred and will be recognized over the terms of the credit agreements. 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 our senior secured credit facility under the Amended Credit Agreement.

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.

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

Repayment on accounts receivable financing facility — As part of the Combination, we assumed an accounts receivable securitization program. This represents the repayment of the secured borrowings.

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

Proceeds from issuance of shares, net — Represents cash proceeds related to the exercise of restricted shares, offset with expenses paid related to the issuance of stock.

Repurchase of shares to satisfy employee minimum tax withholdings — Represents the shares withheld, or in 2016, cancelled for cash, to satisfy the employee minimum tax withholding when restricted stock units vest.

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.

Contribution from noncontrolling interest — This represents the equity investment contributions by the noncontrolling interest in a venture formed between ARRIS and Charter Communications Inc. related to the ActiveVideo acquisition.

Income Taxes Benefit Related to Equity Compensation

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. During 2014, approximately \$17.2 million of U.S. federal tax benefits were obtained from tax deductions arising from equity-based compensation deductions, all of which resulted from 2014 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, England, France, India, Ireland, Northern Ireland, and Sweden. 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 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, as of January 4, 2016. These contracts were settled upon the close of the Combination in January 2016. We use a hedging strategy 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, 2016 and 2015, we had approximately \$1.6 million and \$0.8 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 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 \$6.8 million and \$16.6 million as of December 31, 2016 and 2015, respectively. See Note 7 *Fair Value Measurements* of Notes to the Consolidated Financial Statements for disclosures related to the fair value of 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 \$66.8 million in 2016 as compared to \$49.9 million in 2015 and \$56.6 million in 2014. We had no significant commitments for capital expenditures at December 31, 2016. Management expects to invest approximately \$80.0 million in capital expenditures for the year 2017.

Deferred Income Tax Assets — Including Net Operating Loss Carryforwards and Research and Development Credit Carryforwards, and Capitalized Research and Experimentation Costs and Valuation Allowances

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.

As of December 31, 2016, ARRIS had net operating loss carryforwards for U.S. federal, state, and foreign income tax purposes of approximately \$85.7 million, \$453.0 million and \$59.5 million, respectively. The U.S. federal NOLs expire through 2030. Foreign NOLs related to our Irish subsidiary in the amount of \$16.5 million have an indefinite life. Other significant foreign NOLs arise from our Canadian subsidiary (\$8.5 million, expiring within 17 years) and our Luxembourg subsidiary (\$7.3 million, no expiration). The net operating losses are subject to various limitations on how and when the losses can be used to offset against taxable income. Approximately \$40.7 million of U.S. federal, \$268.0 million of state NOLs and \$27.2 million of the foreign NOLs are subject to valuation allowances because we do not believe the ultimate realization of that portion of the deferred tax assets associated with these U.S. federal and state and foreign NOLs is more-likely-than-not.

During 2016, we used approximately \$66.4 million of U.S. federal NOLs to reduce taxable income. For state tax filings, we recorded the usage of \$23.7 million of pre-apportioned and \$23.7 million of post-apportioned U.S. state NOLs to reduce taxable income.

As of December 31, 2015, ARRIS had net operating loss carryforwards for U.S. federal, state, and foreign income tax purposes of approximately \$218.9 million, \$353.1 million and \$54.9 million, respectively. The U.S. federal NOLs expire through 2031. Foreign NOLs related to our Irish subsidiary in the amount of \$17.8 million have an indefinite life. Other significant foreign NOLs arise from our Canadian subsidiary (\$11.8 million, expiring within 18 years), Dutch subsidiaries (\$2.7 million, expiring during the next three years), and French branch (\$4.8 million, no expiration), our U.K. branch (\$6.1 million, no expiration), our U.K. subsidiary (\$1.6 million, no expiration) and our Israeli subsidiary (\$5.5 million, no expiration). The net operating losses are subject to various limitations on how and when the losses can be used to offset against taxable income. Approximately \$110.1 million of U.S. federal, \$128.4 million of state NOLs, and \$17.0 million of the foreign NOLs are subject to valuation allowances because we do not believe the ultimate realization of that portion of the deferred tax assets associated with these U.S. federal and state and foreign NOLs is more-likely-than-not.

During 2015, we used approximately \$327.1 million of U.S. federal NOLs to reduce taxable income. For state tax filings, we recorded the usage of \$66.2 million of pre-apportioned and \$30.6 million of post-apportioned U.S. state NOLs to reduce taxable income.

During the tax year ending December 31, 2016, we utilized \$23.4 million of U.S. foreign tax credits and \$3.2 million of U.S. state research and development tax credits, to offset against U.S. federal and state income tax liabilities. Approximately \$11.1 million U.S. Federal research and development tax credits were utilized during 2016. During the tax years ending December 31, 2015, and 2014, we utilized \$6.5 and \$27.2 million, respectively of U.S. federal and state research and development tax credits, to offset against U.S. federal and state income tax liabilities. As of December 31, 2016, ARRIS has a deferred tax asset of \$91.9 million for U.S. federal research and development tax credits and \$51.3 million of for state research and development tax credits. Remaining unutilized U.S. federal research and development tax credits can be carried forward twenty years. The state research and development tax credits carry forward and will expire pursuant to the various applicable state laws. Approximately \$8.1million of U.S. federal research and development tax credits and \$10.4 million of state research and development tax credits are subject to valuation allowances because we do not believe the ultimate realization of the related deferred tax assets is more-likely-than-not, primarily due to strict limitations under IRC Section 383.

ARRIS has generally reported taxable income in excess of its pre-tax net book income for financial reporting purposes. A significant reconciling item between the taxable income and the pre-tax net book income has been the book amortization expense relating to the separately stated intangible assets arising from acquisitions. Other significant reconciling items between taxable income and pre-tax net book income are certain reserves that are recorded as expenses for pre-tax net book income purposes which are not deductible for income tax purposes until they are paid. As of December 31, 2016, the Company reports \$479.6 million of capitalized research and experimentation costs, which are available to reduce U.S. federal and state taxable income in future years, based on a straight-line method over a ten year life. The costs are amortized over the remaining lives on a straight-line basis, with the final amortization occurring in 2027.

The Company obtains significant benefits from U.S. federal research and development tax credits, which are used to reduce the Company's U.S. federal income tax liability. In December of 2015, the research and development tax credit was made permanent. The Company recorded a net benefit of \$20.0 million in 2016.

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.

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 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 2016, the plan assets are comprised of approximately 30% to 40% equity securities, 0% to 5% debt securities, and 60% to 70% cash equivalents. For 2015, the plan assets were comprised of approximately 40% to 45%, 0% to 5% and 50% to 60% of equity securities, debt securities and cash equivalents, respectively. For 2017, the plan’s current target allocations are 30% to 40% equity securities, 0% to 5% debt securities, and 60% to 70% 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 Chief Executive Officer 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>2016</u>	<u>2015</u>	<u>2014</u>
Assumed discount rate for plan participants	3.90%	4.15%	3.75%

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

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Assumed discount rate plan participants	4.15%	3.75%	4.50%
Rate of compensation increase	N/A	N/A	N/A
Expected long-term rate of return on plan assets	6.00%	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 2017 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>2016</u>	<u>2015</u>	<u>2014</u>
Assumed discount rate for obligations	1.30%	1.70%	1.90%
Assumed discount rate for expense	1.70%	1.90%	1.80%
Rate of compensation increase for indirect labor	4.00%	4.00%	4.50%
Rate of compensation increase for direct labor	2.00%	2.00%	2.00%
Expected long-term rate of return on plan assets (1)	1.60%	2.00%	2.00%

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

The Company made funding contributions of \$10.9 million related to our non-U.S pension plan in 2016. ARRIS estimates it will make funding contributions of \$1.5 million in 2017.

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 \$16.4 million, \$16.6 million, and \$15.3 million in 2016, 2015 and 2014, 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 \$4.2 million and \$3.6 million at December 31, 2016 and 2015, respectively. Total expenses included in continuing operations for the matching contributions were approximately \$0.2 million and \$0.1 million in 2016 and 2015, 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 is reflected in other long-term liabilities, was \$3.0 million and \$2.8 million at December 31, 2016 and 2015, 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 \$1.6 million and \$1.7 million at December 31, 2016 and 2015, respectively. Total expense (income) included in continuing operations for the deferred retirement salary plan were approximately \$0.4 million and \$0.3 million for 2016 and 2015, respectively.

Critical Accounting Policies

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 as a result 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 of 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 is 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 as the customer would not have full use of the delivered elements.
- 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 operators 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 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.

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 that is applied towards accounting for the multiple element arrangement. If the arrangement includes a combination of elements that fall within different applicable guidance, ARRIS follows the provisions of the hierarchical literature to separate those elements from each other 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 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, modification 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 vendor-specific objective evidence (“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) intangible assets with definite lives subject to amortization, (2) intangible assets with indefinite lives not subject to amortization and (3) goodwill. 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 values of intangible assets included in our consolidated balance sheet (in thousands):

<u>December 31, 2016</u>	<u>Carrying Value</u>	<u>Percentage of Total Assets</u>
Goodwill	\$2,016,169	26%
Definite-lived intangible assets, net	1,667,178	22%
Indefinite-lived intangible assets	<u>10,000</u>	<u>—</u>
Total	<u>\$3,693,347</u>	<u>48%</u>

Other Intangible Assets

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 sales volume and the resulting profit and 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.

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 perform these annual impairment reviews as of the first day of our fourth fiscal quarter (October 1). 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 is 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.

There were no impairment charges related to intangible assets (definite-lived and indefinite-lived), other than goodwill, during 2016, 2015 and 2014. 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.

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 Customer Premises Equipment operating segment is the same as the reporting unit. Our 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 goodwill impairment test consists of a two-step process, if necessary. The first step 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. If the fair value of the reporting unit is less than its carrying amount, the second step of the impairment test must be performed in order to determine the amount of impairment loss, if any. The second step compares the implied fair value of the reporting unit's goodwill with the carrying amount of that goodwill. If the carrying amount of the reporting unit's goodwill exceeds its implied fair value, an impairment charge is recognized in an amount equal to that excess. The loss recognized cannot exceed the carrying amount of goodwill.

The Company has the option to perform a qualitative assessment of goodwill prior to completing the two-step 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, including goodwill and other intangible assets. If the Company concludes that this is the case, it must perform the two-step process. Otherwise, the Company will forego the two-step process and does not need to perform any further testing.

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, using our three-year business plans plus an additional seven years of projected cash flows based on the most recent three-year plan. 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.

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.

There was no impairment of goodwill resulting from our annual impairment testing in 2016, 2015 and 2014. We continue to evaluate the anticipated discounted cash flows from the Cloud software portion of our Network & Cloud segment. 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 \$81 million of goodwill and \$43 million of associated intangible assets.

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 market cost. 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 also 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 or not 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.

g) Warrants

The final measurement date for warrants that contain performance criteria, which is contingent upon achievement of aggregate purchase levels and product mix, 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 are recorded as a reduction to net sales based on the projected number of warrants expected to vest, the proportion of purchases by the customer 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 our 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 is recorded in the period in which our estimates change.

The fair value of warrants is determined utilizing 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 illustrative purposes only, using a hypothetical 4.0 million warrants and Black Scholes fair market value of a warrant at \$10 per share, ARRIS's net sales would result in a \$40.0 million revenue adjustment.

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 variations 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, England, France, India, Ireland, Northern Ireland and Sweden. 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 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 \$11.4 million in the underlying exposures as of December 31, 2016.

All indebtedness under our senior secured credit facilities bears interest at variable rates 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.* 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, such officers 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.* 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, our principal executive officer and principal financial officer 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. During the quarter ended March 31, 2016, we acquired Pace and have since made substantial progress in the process of integrating the acquired business into our existing overall internal control over financial reporting process. As permitted by the SEC, management has elected to exclude Pace Brasil - Industria Electronica e Comercio Ltda. (a wholly owned subsidiary in Brazil) which constituted approximately 1% of total assets and 2% of revenues, respectively as of December 31, 2016, as well as certain non-integrated processes acquired as part of the Combination from our assessment of internal controls over financial reporting as of December 31, 2016.

Item 9B. Other Information

Not Applicable

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, 2016.

During the quarter ended March 31, 2016, ARRIS International plc acquired Pace and have since made substantial progress in the process of integrating the acquired business into the existing overall internal control over financial reporting process. As permitted by the SEC, management has elected to exclude Pace Brasil - Industria Electronica e Comercio Ltda. (a wholly owned subsidiary in Brazil) which constituted approximately 1% of total assets and 2% of revenues, respectively as of December 31, 2016, as well as certain non-integrated processes acquired as part of the Combination from the assessment of internal controls over financial reporting as of December 31, 2016.

The effectiveness of ARRIS International plc's internal control over financial reporting as of December 31, 2016 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, 2017

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of ARRIS International plc.

We have audited ARRIS International plc's internal control over financial reporting as of December 31, 2016, 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). ARRIS International plc'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 conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether 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.

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.

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 certain non-integrated aspects of Pace plc, which are included in the 2016 consolidated financial statements of ARRIS International plc and constituted approximately 1% of total assets as of December 31, 2016 and approximately 2% of net sales for the year then ended. Our audit of internal control over financial reporting of ARRIS International plc also did not include an evaluation of the internal control over financial reporting of these certain non-integrated aspects of Pace plc.

In our opinion, ARRIS International plc maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of ARRIS International plc as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), cash flows, and stockholders' equity for each of the three years in the period ended December 31, 2016, and our report dated March 1, 2017, expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Atlanta, Georgia
March 1, 2017

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	<u>Page</u>
Report of Independent Registered Public Accounting Firm	80
Consolidated Balance Sheets at December 31, 2016 and 2015	81
Consolidated Statements of Operations for the years ended December 31, 2016, 2015 and 2014	82
Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2016, 2015 and 2014	83
Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014	84
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2016, 2015 and 2014	86
Notes to the Consolidated Financial Statements	87

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of ARRIS International plc.

We have audited the accompanying consolidated balance sheets of ARRIS International plc as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), cash flows and stockholders' equity for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of ARRIS International plc at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, 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), ARRIS International plc's internal control over financial reporting as of December 31, 2016, 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, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Atlanta, Georgia
March 1, 2017

ARRIS INTERNATIONAL PLC
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2016	2015
	(in thousands except share and per share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 980,123	\$ 863,582
Short-term investments, at fair value	115,553	15,470
Total cash, cash equivalents and short-term investments	1,095,676	879,052
Accounts receivable (net of allowances for doubtful accounts of \$15,253 in 2016 and \$9,975 in 2015)	1,359,430	651,893
Other receivables	73,193	12,233
Inventories (net of reserves of \$72,596 in 2016 and \$57,026 in 2015)	551,541	401,592
Prepaid income taxes	51,476	25,624
Prepays	21,163	19,319
Other current assets	127,593	120,490
Total current assets	3,280,072	2,110,203
Property, plant and equipment (net of accumulated depreciation of \$319,473 in 2016 and \$304,532 in 2015)	353,377	312,311
Goodwill	2,016,169	1,013,963
Intangible assets (net of accumulated amortization of \$1,254,360 in 2016 and \$850,873 in 2015)	1,677,178	810,448
Investments	72,932	69,542
Deferred income taxes	298,757	185,439
Other assets	59,877	21,610
Total assets	<u>\$7,758,362</u>	<u>\$4,523,516</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$1,048,904	\$ 514,877
Accrued compensation, benefits and related taxes	139,794	111,389
Accrued warranty	49,618	27,630
Deferred revenue	132,128	137,606
Current portion of long-term debt and financing lease obligation	82,734	43,591
Income taxes payable	23,133	8,368
Other accrued liabilities	357,823	169,169
Total current liabilities	1,834,134	1,012,630
Long-term debt and financing lease obligation, net of current portion	2,180,009	1,496,243
Accrued pension	52,652	64,052
Noncurrent income taxes	123,344	42,197
Deferred income taxes	223,529	503
Other noncurrent liabilities	117,957	66,930
Total liabilities	4,531,625	2,682,555
Stockholders' equity:		
Common stock, par value \$0.01 per share, 320.0 million shares authorized; 147.5 million shares issued and outstanding in 2015	—	1,790
Ordinary shares, nominal value £0.01 per share, 190.1 million shares issued and outstanding in 2016	2,831	—
Capital in excess of par value	3,314,707	1,777,276
Treasury stock at cost, 35.1 million shares in 2015	—	(331,329)
Retained earnings (deficit)	(132,013)	358,823
Accumulated other comprehensive income (loss)	3,291	(12,646)
Total ARRIS International plc stockholders' equity	3,188,816	1,793,914
Stockholders' equity attributable to noncontrolling interest	37,921	47,047
Total stockholders' equity	3,226,737	1,840,961
Total liabilities and stockholders' equity	<u>\$7,758,362</u>	<u>\$4,523,516</u>

See accompanying notes to the consolidated financial statements.

ARRIS INTERNATIONAL PLC
CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Years Ended December 31,		
	2016	2015	2014
	(in thousands, except per share data)		
Net sales	\$6,829,118	\$4,798,332	\$5,322,921
Cost of sales	<u>5,121,501</u>	<u>3,379,409</u>	<u>3,740,425</u>
Gross margin	1,707,617	1,418,923	1,582,496
Operating expenses:			
Selling, general, and administrative expenses	454,190	417,085	410,568
Research and development expenses	584,909	534,168	556,575
Amortization of intangible assets	397,464	227,440	236,521
Integration, acquisition, restructuring and other costs	<u>160,337</u>	<u>29,277</u>	<u>37,498</u>
Total operating expenses	1,596,900	1,207,970	1,241,162
Operating income	110,717	210,953	341,334
Other expense (income):			
Interest expense	79,817	70,936	62,901
Loss on investments	21,194	6,220	10,961
(Gain) loss on foreign currency	(13,982)	20,761	2,637
Interest income	(4,395)	(2,379)	(2,590)
Other expense (income), net	<u>3,991</u>	<u>8,362</u>	<u>28,195</u>
Income before income taxes	24,092	107,053	239,230
Income tax expense (benefit)	<u>15,131</u>	<u>22,594</u>	<u>(87,981)</u>
Consolidated net income	8,961	84,459	327,211
Net loss attributable to noncontrolling interest	<u>(9,139)</u>	<u>(7,722)</u>	<u>—</u>
Net income attributable to ARRIS International plc.	<u>\$ 18,100</u>	<u>\$ 92,181</u>	<u>\$ 327,211</u>
Net income per common share ⁽¹⁾ :			
Basic	<u>\$ 0.09</u>	<u>\$ 0.63</u>	<u>\$ 2.27</u>
Diluted	<u>\$ 0.09</u>	<u>\$ 0.62</u>	<u>\$ 2.21</u>
Weighted average common shares:			
Basic	<u>190,701</u>	<u>146,388</u>	<u>144,386</u>
Diluted	<u>192,185</u>	<u>149,359</u>	<u>148,280</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 (LOSS)

	For the Years Ended December 31,		
	2016	2015	2014
	(in thousands)		
Consolidated net income	\$ 8,961	\$84,459	\$327,211
Available-for-sale securities:			
Unrealized loss on available-for-sale securities, net of tax of \$6, \$37 and \$73 in 2016, 2015 and 2014, respectively	(11)	(64)	(127)
Reclassification adjustments recognized in net income, net of tax of \$(9), \$(100) and \$89 in 2016, 2015 and 2014, respectively	<u>15</u>	<u>172</u>	<u>(154)</u>
Net change in available-for-sale	<u>4</u>	<u>108</u>	<u>(281)</u>
Derivative instruments:			
Unrealized gain (loss) on derivative instruments, net of tax of \$(472), \$4,936 and \$3,149 in 2016, 2015 and 2014, respectively	1,631	(8,319)	(5,391)
Reclassification adjustments recognized in net income, net of tax of \$(1,691), \$(2,791) and \$(2,784) in 2016, 2015 and 2014, respectively	<u>5,821</u>	<u>4,704</u>	<u>4,766</u>
Net change in derivative instruments	<u>7,452</u>	<u>(3,615)</u>	<u>(625)</u>
Pension liabilities:			
Unrealized (loss) gain on pension liability, net of tax of \$1,425, \$(1,082) and \$2,709 in 2016, 2015 and 2014, respectively	(2,934)	2,044	(5,273)
Reclassification adjustments recognized in net income, net of tax of \$(155), \$(498) and \$(261) in 2016, 2015 and 2014, respectively	<u>319</u>	<u>942</u>	<u>508</u>
Net change in pension liabilities	<u>(2,615)</u>	<u>2,986</u>	<u>(4,765)</u>
Cumulative translation adjustments	<u>11,096</u>	<u>(1,078)</u>	<u>(714)</u>
Other comprehensive income (loss), net of tax	<u>15,937</u>	<u>(1,599)</u>	<u>(6,385)</u>
Comprehensive income	<u>24,898</u>	<u>82,860</u>	<u>320,826</u>
Comprehensive loss attributable to noncontrolling interest	<u>(9,127)</u>	<u>(7,747)</u>	<u>—</u>
Comprehensive income attributable to ARRIS International plc	<u>\$34,025</u>	<u>\$90,607</u>	<u>\$320,826</u>

See accompanying notes to the consolidated financial statements.

ARRIS INTERNATIONAL PLC
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
	2016	2015	2014
	(in thousands)		
Operating activities:			
Consolidated net income	\$ 8,961	\$ 84,459	\$ 327,211
Depreciation	90,577	71,780	78,988
Amortization of intangible assets	404,475	231,590	236,751
Amortization of deferred financing fees and debt discount	7,705	9,646	11,575
Deferred income tax provision (benefit)	(148,418)	5,418	(163,485)
Foreign currency remeasurement of deferred tax liability	(16,356)	—	—
Stock compensation expense	60,049	64,218	53,799
Impairment of intangible assets	2,200	—	—
Provision for non-cash warrants	30,159	—	—
Provision for doubtful accounts	1,386	2,997	5,336
Loss on disposal of property, plant & equipment and other	8,706	7,776	4,247
Loss on investments and other	21,194	6,220	10,961
Excess income tax benefits from stock-based compensation plans	(20,085)	(3,997)	(8,959)
Changes in operating assets and liabilities, net of effect of acquisitions and dispositions:			
Accounts receivable	(258,677)	(55,132)	16,796
Other receivables	(31,517)	(6,017)	(2,997)
Inventories	282,644	(6,685)	(71,036)
Accounts payable and accrued liabilities	(178,086)	15,065	(116,909)
Prepays and other, net	97,578	(83,466)	77,003
Net cash provided by operating activities	362,495	343,872	459,281
Investing activities:			
Purchases of investments	(141,543)	(48,566)	(127,780)
Sales of investments	25,931	161,824	59,679
Purchases of property, plant and equipment	(66,760)	(49,890)	(56,588)
Purchases of intangible assets	(5,526)	(39,340)	—
Proceeds from sale-leaseback transaction	—	24,960	—
Acquisition, net of cash acquired	(340,118)	(97,905)	—
Other, net	3,507	2,971	103
Net cash used in investing activities	(524,509)	(45,946)	(124,586)

See accompanying notes to the consolidated financial statements.

ARRIS INTERNATIONAL PLC
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

	Years Ended December 31,		
	2016	2015	2014
	(in thousands)		
Financing activities:			
Proceeds from issuance of shares, net	\$ 12,885	\$ 16,189	\$ 19,196
Repurchase of shares	(178,035)	(24,999)	—
Excess income tax benefits from stock-based compensation plans	20,085	3,997	8,959
Repurchase of shares to satisfy employee minimum tax withholdings	(17,925)	(46,680)	(29,845)
Proceeds from issuance of debt	800,000	—	—
Payment of debt obligations	(319,750)	(53,500)	(209,653)
Payment of financing lease obligation	(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	(2,304)	(8,239)	—
Contribution from noncontrolling interest	—	54,794	—
Net cash provided by (used in) financing activities	290,652	(134)	(211,343)
Effect of exchange rate changes on cash and cash equivalents	(12,097)	—	—
Net increase in cash and cash equivalents	116,541	297,792	123,352
Cash and cash equivalents at beginning of year	863,582	565,790	442,438
Cash and cash equivalents at end of year	<u>\$ 980,123</u>	<u>\$863,582</u>	<u>\$ 565,790</u>
Supplemental cash flow information:			
Interest paid during the year	<u>\$ 71,127</u>	<u>\$ 60,798</u>	<u>\$ 51,122</u>
Income taxes paid during the year	<u>\$ 111,524</u>	<u>\$ 39,065</u>	<u>\$ 37,152</u>
Non-cash investing and financing activities: debt assumed in acquisition	<u>\$ 263,795</u>	<u>\$ 15,000</u>	<u>\$ —</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, 2014	\$ 1,766	\$ —	\$1,688,782	\$(306,330)	\$ (60,569)	\$ (4,662)	\$1,318,987		\$1,318,987
Net income	—	—	—	—	327,211	—	327,211	—	327,211
Other comprehensive income (loss), net of tax	—	—	—	—	—	(6,385)	(6,385)	—	(6,385)
Compensation under stock award plans	—	—	53,799	—	—	—	53,799	—	53,799
Issuance of common stock and other	30	—	(10,679)	—	—	—	(10,649)	—	(10,649)
Income tax benefit related to exercise of stock options	—	—	8,959	—	—	—	8,959	—	8,959
Other	—	—	(1,161)	—	—	—	(1,161)	—	(1,161)
Balance, December 31, 2014	\$ 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	(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	—	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

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 (the “Combination”) with Pace plc, a company incorporated in England and Wales (“Pace”). In connection with the Combination, (i) ARRIS International plc (the “Registrant”), a company incorporated in England and Wales, acquired all of the outstanding ordinary shares of Pace (the “Pace Acquisition”) 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 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 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 media entertainment and data communications solutions provider, headquartered in Suwanee, Georgia. The Company operates in two business segments, Customer Premises Equipment (“CPE”) and Network & Cloud (“N&C”) (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, and IP data services to their subscribers. ARRIS is a leader in set-tops, digital video and Internet Protocol Television distribution systems, broadband access infrastructure platforms, and associated data and voice Customer Premises Equipment. The Company’s solutions are complemented by a broad array of services including technical support, repair and refurbishment, and systems design and integration.

Note 2. Summary of Significant Accounting Policies

(a) Consolidation

The accompanying consolidated financial statements include the accounts of the Company and its wholly owned foreign and domestic 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) 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.

(d) 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 2016, 2015 and 2014 (in thousands):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Balance at beginning of fiscal year	\$ 9,975	\$6,392	\$1,887
Charges to expenses	1,386	2,997	5,336
Recoveries (deductions)	<u>3,892</u>	<u>586</u>	<u>(831)</u>
Balance at end of fiscal year	<u>\$15,253</u>	<u>\$9,975</u>	<u>\$6,392</u>

(e) Inventories

Inventories are stated at the lower of cost or market. 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.

(f) Revenue recognition

ARRIS generates revenue as a result 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 of 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 is 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 as the customer would not have full use of the delivered elements.
- 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 operators 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 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.

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 that is applied towards accounting for the multiple element arrangement. 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 from each other 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.

ARRIS’s equipment deliverables typically include proprietary operating system software, which together deliver the essential functionality of its products. Therefore, ARRIS’s equipment 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 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 vendor-specific objective evidence (“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 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.

(g) *Shipping and Handling Fees*

Shipping and handling costs for the years ended December 31, 2016, 2015, and 2014 were approximately \$4.3 million, \$5.6 million and \$6.9 million, respectively, and are classified in net sales and cost of sales.

(h) *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 Operations.

(i) *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 \$6.6 million in 2016, \$4.5 million in 2015 and \$4.0 million in 2014. Depreciation expense, including amortization of capital leases, for the years ended December 31, 2016, 2015, and 2014 was approximately \$90.6 million, \$71.8 million, and \$79.0 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, 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. When such events or changes in circumstances are present, we estimate 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 we use in our 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, we recognize an impairment loss. The impairment loss recognized is the amount by which the carrying amount exceeds the fair value. We use a variety of methodologies to determine the fair value of property, plant and equipment, including appraisals and discounted cash flow models, which are consistent with the assumptions we believe hypothetical marketplace participants would use. See Note 12 *Property, Plant and Equipment* of Notes to the Consolidated Financial Statements for further information property, plant and equipment.

(j) *Goodwill, and Other Intangible Assets*

We classify intangible assets into three categories: (1) intangible assets with definite lives subject to amortization, (2) intangible assets with indefinite lives not subject to amortization and (3) goodwill. We determine the useful lives of our identifiable intangible assets after considering the specific facts and circumstances related to each intangible asset. Factors we consider 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.

Other Intangible Assets

When facts and circumstances indicate that the carrying value of definite-lived intangible assets may not be recoverable, management assesses the recoverability of the carrying amount by preparing estimates of sales volume and the resulting profit and cash flows. 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.

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. Our Company performs these annual impairment reviews as of the first day of our fourth fiscal quarter (October 1). 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 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 2016, we wrote off \$2.2 million of in-process R&D related to projects for which development efforts were abandoned subsequent to the Pace acquisition. There were no impairment charges related to intangible assets (definite-lived and indefinite-lived) other than goodwill in 2015 and 2014.

Goodwill

The Company perform 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 runs the business. The Customer Premises Equipment operating segment is 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 goodwill impairment test consists of a two-step process, if necessary. The first step is to compare the fair value of a reporting unit to its carrying value, 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. If the fair value of the reporting unit is less than its carrying value, the second step of the impairment test must be performed in order to determine the amount of impairment loss, if any. The second step compares the implied fair value of the reporting unit's goodwill with the carrying amount of that goodwill. If the carrying amount of the reporting unit's goodwill exceeds its implied fair value, an impairment charge is recognized in an amount equal to that excess. The loss recognized cannot exceed the carrying amount of goodwill.

The Company has the option to perform a qualitative assessment of goodwill prior to completing the two-step 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, including goodwill and other intangible assets. If the Company concludes that this is the case, it must perform the two-step process. Otherwise, the Company will forego the two-step process and does not need to perform any further testing.

There was no impairment of goodwill resulting from our annual impairment testing in 2016, 2015 and 2014. The Company continues to evaluate the anticipated discounted cash flows from the Cloud software portion of the Network & Cloud segment. If current long-term projections for this unit are not realized or materially decrease, the Company may be required to write off all or a portion of the \$81.1 million of goodwill and \$42.9 million of associated intangible assets.

(k) Advertising and Sales Promotion

Advertising and sales promotion costs are expensed as incurred. Advertising expense was approximately \$19.6 million, \$16.8 million, and \$8.2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

(l) 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.

(m) *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.

(n) *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 a valuation allowance to the amount that is more likely than not 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.

(o) *Foreign Currency Translation*

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, England, France, India, Northern Ireland and Sweden. 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.

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.

(p) *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.

(q) *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.

(r) *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 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 approximate their 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.

(s) *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.

(t) *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 derivative instruments, change in pension liability, net of tax, if applicable and change in foreign currency translation adjustments.

(u) *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 June 2014, the Financial Accounting Standards Board ("FASB") issued an update to its accounting guidance related to share-based compensation. The guidance requires that a performance target that affects vesting and that could be achieved after the requisite service period, be treated as a performance condition, and therefore shall not be reflected in determining the fair value of the award at the grant date. This update further clarifies that compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the period(s) for which the requisite service has already been rendered. The guidance is effective for annual and interim periods beginning after December 15, 2015. ARRIS adopted this update in the first quarter of 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial position and results of operations.

In August 2014, the FASB issued new guidance related to the disclosures around going concern. The new standard provides guidance around management's responsibility to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about an entity's ability to continue as a going concern, and if those conditions exist to provide related footnote disclosures. The new standard is effective for fiscal years ending after December 15, 2016, and interim periods within those fiscal years beginning after December 15, 2016. ARRIS adopted this update in the fourth quarter of 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial position and results of operations.

In January 2015, the FASB issued new guidance simplifying income statement presentation by eliminating the concept of "extraordinary items". The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. ARRIS adopted this new guidance in the beginning of the first quarter of 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial position and results of operations.

In February 2015, the FASB issued new guidance related to consolidations. The new guidance amends certain requirements for determining whether a variable interest entity must be consolidated. The amendments are effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. ARRIS adopted this new guidance in the beginning of the first quarter of 2016. The adoption of this guidance did not have a material impact on the Company's consolidated financial position and results of operations.

In April 2015, the FASB issued new guidance to determine whether fees for purchasing cloud computing services (or hosted software solutions) are considered internal-use software or should be considered a service contract. A cloud computing agreement that includes a software license should be accounted for in the same manner as internal-use software if the customer has contractual right to take possession of the software during the hosting period without significant penalty and it is feasible to either run the software on the customer's hardware or contract with another vendor to host the software. Arrangements that don't meet the requirements for internal-use software should be accounted for as a service contract. As a result, all software licenses within the scope of this guidance will be accounted for consistently with other licenses of intangible assets. This guidance is effective for interim and annual periods beginning after December 15, 2015. ARRIS adopted this guidance prospectively in the beginning of the first quarter of 2016 and it did not have a significant impact on our consolidated financial statements.

In March 2016, the FASB issued new guidance which eliminates the requirement that when an existing cost method investment qualifies for use of the equity method, an investor must restate its historical financial statements, as if the equity method had been used during all previous periods. Under the new guidance, at the point an investment qualifies for the equity method, any unrealized gain or loss on available-for-sale securities in accumulated other comprehensive income (loss) will be recognized through earnings. The standard is effective for interim and annual reporting periods beginning after December 15, 2016, although early adoption is permitted. The Company early adopted this standard during the three months ended March 31, 2016. None of the available-for-sale or cost investments qualified for use of the equity method during the year.

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 their 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 change in retained earnings. ARRIS currently anticipates adopting the standard using the modified retrospective method on January 1, 2018.

The Company has created a cross-functional team to analyze 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 and customers, performed an analysis of a sample of contracts to evaluate the impact of the standard, and begun the drafting of our accounting policies and evaluating the new disclosure requirements. ARRIS is in the process of implementing changes to its systems, business processes and controls to support the adoption of the new standard.

At this stage, the Company is currently evaluating the potential impact of this standard on its consolidated financial statements. The actual impact of adoption will be based on open contracts existing at December 31, 2017 and is subject to the finalization of our transition method. While the Company has not finalized its evaluation, in certain instances, the Company will recognize revenue earlier under the new standard. For example, ARRIS will recognize revenue earlier for certain software license contracts that the Company enter into with its customers. Likewise, the Company will recognize revenue earlier for certain arrangements with Value Added Resellers (VARs) currently accounted for utilizing the sell-through method.

In July 2015, the 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 and 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. Early adoption is permitted. The adoption of this guidance is not expected to have a material impact on the Company's consolidated financial position and results of operations.

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 is currently assessing the potential impact of this update on its consolidated financial statements.

On 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 when the awards vest or are settled. 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. We will adopt the standard effective January 1, 2017. Following adoption, the primary impact on our 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 actual impact of adopting this standard on the effective tax rate will vary depending on our share price during fiscal 2017. We are continuing to evaluate the impacts of the adoption of this guidance and our preliminary assessments are subject to change.

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 our Consolidated Financial Statements.

In October 2016, the FASB issued new guidance for intra-entity transfer of assets other than inventory that would require 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. The Company is currently assessing the potential impact of this standard on its consolidated financial statements.

In November 2016, the FASB issued new guidance which 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 evaluating how the adoption of this standard will have on its consolidated financial statements.

Note 4. Business Acquisitions

Acquisition of Pace

On January 4, 2016, ARRIS completed the acquisition of Pace, an international technology solutions provider, for approximately \$2,074 million, including \$638.8 million in cash and issuance of 47.7 million shares of ARRIS International plc (formerly ARRIS International Limited) (“New ARRIS”) ordinary shares and \$0.3 million of non-cash consideration.

In connection with the Combination, (i) ARRIS, a company incorporated in England and Wales and wholly-owned subsidiary of ARRIS Group, agreed to acquire all of the outstanding ordinary shares of Pace by means of court-sanctioned scheme of arrangement (the “Scheme”) under English law and (ii) ARRIS Group entered into a Merger Agreement (the “Merger Agreement”), dated April 22, 2015, among ARRIS Group, ARRIS, ARRIS US

Holdings, Inc. (formerly Archie U.S. Holdings LLC), a Delaware corporation and wholly-owned subsidiary of ARRIS (“US Holdco”) and Archie U.S. Merger LLC, a Delaware limited liability company and wholly-owned subsidiary of US Holdco (“Merger Sub”), whereby Merger Sub would be merged with and into ARRIS Group, with ARRIS Group surviving as an indirect wholly-owned subsidiary of ARRIS.

The Combination combines the strengths of both companies on a global scale — broadening ARRIS’s worldwide CPE leadership with a competitive stake in satellite communications; and expanding its cable pay TV, cloud, network, home, and services portfolio.

The goodwill of \$989.5 million arising from the acquisition is attributable to the strategic opportunities and synergies that are expected to arise from the acquisition of Pace and the workforce of the acquired business. The Company finalized the accounting for the business combination in the fourth quarter of 2016 and goodwill has been assigned to our reporting units. Goodwill is not expected to be deductible for income tax purposes.

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

Cash Consideration ⁽¹⁾	\$ 638,789
Stock Consideration ⁽²⁾	1,434,690
Non-cash Consideration ⁽³⁾	<u>323</u>
Total consideration transferred	<u><u>\$2,073,802</u></u>

- (1) Cash consideration represents the cash payment of 132.5 pence (converted to \$1.95 at an exchange rate of 1.4707 as of January 4, 2016) for each of Pace’s shares and equity awards outstanding.
- (2) Stock consideration represents 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 Combination.
- (3) Non-cash consideration represents \$0.3 million settlement of preexisting payables and receivables between Pace and ARRIS.

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

	Amounts Recognized as of Acquisition Date
Total estimated consideration transferred	<u>\$2,073,802</u>
Cash and cash equivalents	298,671
Accounts and other receivables	480,815
Inventories	427,642
Prepays	40,501
Other current assets	54,217
Property, plant & equipment	73,983
Intangible assets	1,258,660
Other assets	9,280
Accounts payable and other current liabilities	(795,283)
Deferred revenue	(4,805)
Short-term borrowings	(263,795)
Other accrued liabilities	(136,789)
Noncurrent deferred income tax liabilities	(285,937)
Other noncurrent liabilities	<u>(72,895)</u>
Net assets acquired	<u>1,084,265</u>
Goodwill	<u>\$ 989,537</u>

As a result of measurement period changes for intangible assets, the impact to previously recorded amortization for the first, second and third quarters of 2016 was an increase of \$6.4 million, a decrease of \$6.6 million, and an increase of \$5.6 million, respectively.

The Combination was accounted for using the acquisition method of accounting in accordance with the guidance in ASC 805, *Business Combinations*, 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. During the fourth quarter of 2016, the Company completed the accounting for the aforementioned business combination.

The \$1,258.7 million of acquired intangible assets are as follows (in thousands):

	Estimated Fair value	Estimated Weighted Average Life (years)
Customer contracts and relationships	\$ 634,400	9.8
Technology and patents	539,160	6.0
In-process research and development	6,300	indefinite
Trademarks and tradenames	62,400	3.0
Backlog	<u>16,400</u>	0.5
Total estimated fair value of intangible assets	<u>\$1,258,660</u>	

The fair value of trade accounts receivable is \$452.3 million with the gross contractual amount being \$454.3 million. The Company expects \$2.0 million to be uncollectible.

The Company incurred acquisition related costs of \$29.0 million during 2016. 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 and restructuring costs". The Company also assumed \$263.8 million of debt in conjunction with the Combination, and this debt was subsequently repaid in January 2016.

With regard to revenue and earnings of Pace since the acquisition date, the Company has made significant progress in integrating the acquired Pace operations and has undergone a business transformation which impacts the ability to provide separate reporting for Pace. As a result, the Company believes that disclosure related to amounts of revenues and earnings of Pace since the acquisition date is now impractical.

The following unaudited pro forma summary presents consolidated information of the Company as if the acquisition of Pace occurred on January 1, 2015. The pro forma adjustments primarily relate to the additional depreciation expense on property, plant and equipment and amortization of acquired intangibles assets, interest expense related to new financing arrangements and the estimated impact on the Company's income tax provision. The unaudited pro forma combined results of operations are provided for illustrative purposes only and are not indicative of the Company's actual consolidated results.

Unaudited pro forma net income (loss) for the years ended December 31, 2016 and 2015 was adjusted to (exclude) include certain acquisition-related nonrecurring adjustments, including income tax related to stock transfer, retention bonus, executive severances, acceleration of restricted stock, acquisition related costs, and fair value adjustments to acquisition date inventory, deferred revenue and deferred costs. These adjustments in the aggregate were \$(147.4) million and \$167.0 million for the years December 31, 2016 and 2015, respectively. These additional adjustments exclude the income tax impact.

	<u>Years Ended December 31,</u>	
	<u>2016</u>	<u>2015</u>
	<u>(in thousands) (unaudited)</u>	
Net sales	\$6,829,118	\$7,115,871
Net income (loss) attributable to ARRIS International plc	138,674	(79,414)
Net income (loss) per share ⁽¹⁾		
Basic	\$ 0.73	\$ (0.41)
Diluted	\$ 0.72	\$ (0.41)

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

These pro forma results are based on estimates and assumptions, which the Company believes are reasonable.

ActiveVideo acquisition

In April 2015, the Company and Charter Communications Inc. formed a venture, A-C Acquisition, LLC ("A-C Venture") with ARRIS's and Charter's ownership percentage of the venture being 65% and 35%, respectively. On April 30, 2015, A-C Venture acquired 100% of the outstanding shares in ActiveVideo Networks, Inc. ("ActiveVideo"). The consideration for the acquisition was \$98 million in cash. ActiveVideo, headquartered in San Jose, California, is a software company that uses cloud-based technology to bring advanced user interfaces and services to cable and IPTV set-top boxes, as well as connected consumer electronic devices. Goodwill arising from the acquisition is attributable to the workforce of the acquired business, future technology, future customer relationships, and strategic opportunities that are expected to arise from the acquisition. No tax deductible goodwill existed as of the acquisition date. Subsequent to the acquisition date, ActiveVideo converted to a limited liability company creating tax basis in goodwill essentially equal to its book basis. The total goodwill was assigned to the Company's Cloud TV reporting unit, within the Company's N&C reportable segment.

Note 5. Goodwill and Intangible Assets

The changes in the carrying amount of goodwill for the three years ended December 31, 2016 are as follows (in thousands):

	<u>CPE</u>	<u>N & C</u>	<u>Total</u>
Goodwill	\$ 688,658	\$ 630,400	\$1,319,058
Accumulated impairment losses	—	(378,656)	(378,656)
Balance as of December 31, 2013	<u>\$ 688,658</u>	<u>\$ 251,744</u>	<u>\$ 940,402</u>
<i>Changes in year 2014:</i>			
Goodwill acquired	—	1,682	1,682
Other	(4,061)	(1,956)	(6,017)
Balance as of December 31, 2014	<u>\$ 684,597</u>	<u>\$ 251,470</u>	<u>\$ 936,067</u>
Goodwill	684,597	630,126	1,314,723
Accumulated impairment losses	—	(378,656)	(378,656)
Balance as of December 31, 2014	<u>\$ 684,597</u>	<u>\$ 251,470</u>	<u>\$ 936,067</u>
<i>Changes in year 2015:</i>			
Goodwill acquired (disposed), net	—	78,053	78,053
Other	(2,015)	1,858	(157)
Balance as of December 31, 2015	<u>\$ 682,582</u>	<u>\$ 331,381</u>	<u>\$1,013,963</u>
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>\$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>\$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>\$2,016,169</u>

During 2016, the Company recorded \$989.5 million of goodwill related to the Pace acquisition, and disposed of \$(0.1) million of goodwill related to a business divestiture.

During 2015, the Company recorded \$78.8 million of goodwill related to the ActiveVideo acquisition and disposed of \$(0.7) million of goodwill related to the sale of its Supplies business.

During 2014, the Company recorded \$1.7 million of goodwill related to the SeaWell Network acquisition.

Intangible Assets

The gross carrying amount and accumulated amortization of the Company's intangible assets as of December 31, 2016 and December 31, 2015 are as follows (in thousands):

	December 31, 2016			December 31, 2015		
	Gross Amount	Accumulated Amortization	Net Book Value	Gross Amount	Accumulated Amortization	Net Book Value
<u>Definite-lived intangible assets :</u>						
Customer relationships	\$1,572,947	\$ 624,719	\$ 948,228	\$ 930,212	\$468,414	\$461,798
Developed technology, patents & licenses	1,248,719	571,808	676,911	704,137	361,719	342,418
Trademarks, trade and domain names ...	83,472	41,433	42,039	21,072	20,740	332
Backlog	16,400	16,400	—	—	—	—
Sub-total	<u>\$2,921,538</u>	<u>\$1,254,360</u>	<u>\$1,667,178</u>	<u>\$1,655,421</u>	<u>\$850,873</u>	<u>\$804,548</u>
<u>Indefinite-lived intangible assets:</u>						
Trademarks	5,900	—	5,900	5,900	—	5,900
In-process research and development ...	4,100	—	4,100	—	—	—
Sub-total	<u>10,000</u>	<u>—</u>	<u>10,000</u>	<u>5,900</u>	<u>—</u>	<u>5,900</u>
Total	<u>\$2,931,538</u>	<u>\$1,254,360</u>	<u>\$1,677,178</u>	<u>\$1,661,321</u>	<u>\$850,873</u>	<u>\$810,448</u>

During 2016, the Company recorded \$1,258.7 million of intangible assets (other than goodwill) associated with the Pace acquisition, see Note 4 *Business Acquisitions* of Notes to the Consolidated Financial Statements for further discussion, 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 acquisition. The write off related to the Company's CPE segment and was included in Integration, acquisition, restructuring and other costs on the Consolidated Statements of Operations.

Amortization expense is reported in the consolidated statements of operations within cost of goods sold and operating expenses. The following table presents the amortization of intangible assets (in thousands):

	Years Ended December 31,		
	2016	2015	2014
Cost of sales	\$ 2,963	\$ 670	\$ 230
Selling, general & administrative expense	4,048	3,480	—
Amortization of intangible assets	<u>397,464</u>	<u>227,440</u>	<u>236,521</u>
Total	<u>\$404,475</u>	<u>\$231,590</u>	<u>\$236,751</u>

The estimated total amortization expense for finite-lived intangibles for each of the next five fiscal years is as follows (in thousands):

2017	\$ 370,767
2018	315,942
2019	269,910
2020	258,905
2021	124,119
Thereafter	327,535

Note 6. Investments

ARRIS's investments consisted of the following (in thousands):

	<u>As of December 31, 2016</u>	<u>As of December 31, 2015</u>
Current Assets:		
Available-for-sale securities	\$115,553	\$15,470
Noncurrent Assets:		
Available-for-sale securities	15,391	4,036
Equity method investments	22,688	24,452
Cost method investments	6,841	16,646
Other investments	<u>28,012</u>	<u>24,408</u>
Total classified as non-current assets	<u>72,932</u>	<u>69,542</u>
Total	<u>\$188,485</u>	<u>\$85,012</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):

	<u>December 31, 2016</u>				<u>December 31, 2015</u>			
	<u>Amortized Costs</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Value</u>	<u>Amortized Costs</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Value</u>
Certificates of deposit (foreign)	\$ 87,372	\$ —	\$ —	\$ 87,372	\$ 4,208	\$ —	\$ —	\$ 4,208
Corporate bonds	34,175	35	(77)	34,133	6,198	78	(19)	6,257
Short-term bond fund ..	5,046	69	(69)	5,046	4,711	370	(76)	5,005
Corporate obligations ..	3	—	—	3	1	—	—	1
Money markets	54	—	—	54	209	—	—	209
Mutual funds	94	28	(21)	101	146	1	(16)	131
Other investments	<u>4,192</u>	<u>530</u>	<u>(487)</u>	<u>4,235</u>	<u>3,712</u>	<u>214</u>	<u>(231)</u>	<u>3,695</u>
Total	<u>\$130,936</u>	<u>\$662</u>	<u>\$(654)</u>	<u>\$130,944</u>	<u>\$19,185</u>	<u>\$663</u>	<u>\$(342)</u>	<u>\$19,506</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 as of December 31, 2016 and 2015 (in thousands):

	<u>December 31, 2016</u>					
	<u>Less than 12 months</u>		<u>12 months or more</u>		<u>Total</u>	
	<u>Fair Value</u>	<u>Unrealized Losses</u>	<u>Fair Value</u>	<u>Unrealized Losses</u>	<u>Fair Value</u>	<u>Unrealized Losses</u>
Certificates of deposit (foreign)	\$ 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	<u>4,235</u>	<u>(487)</u>	<u>—</u>	<u>—</u>	<u>4,235</u>	<u>(487)</u>
Total	<u>\$130,944</u>	<u>\$(654)</u>	<u>\$—</u>	<u>\$—</u>	<u>\$130,944</u>	<u>\$(654)</u>

	December 31, 2015					
	Less than 12 months		12 months or more		Total	
	Fair value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Certificates of deposit (foreign)	\$ 4,208	\$ —	\$—	\$—	\$ 4,208	\$ —
Corporate bonds	6,257	(19)	—	—	6,257	(19)
Short-term bond fund	5,005	(76)	—	—	5,005	(76)
Corporate obligations	1	—	—	—	1	—
Money markets	209	—	—	—	209	—
Mutual funds	131	(16)	—	—	131	(16)
Other investments	3,695	(231)	—	—	3,695	(231)
Total	<u>\$19,506</u>	<u>\$(342)</u>	<u>\$—</u>	<u>\$—</u>	<u>\$19,506</u>	<u>\$(342)</u>

As of December 31, 2016, 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,		
	2016	2015	2014
Proceeds from sales	\$25,932	\$157,965	\$54,057
Gross gains	33	305	1
Gross losses	—	(452)	(83)

The contractual maturities of the Company's available-for-sale securities as of December 31, 2016 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, 2016	
	Amortized Cost	Fair Value
Within 1 year	\$115,559	\$115,553
After 1 year through 5 years	11,034	10,998
After 5 year through 10 years	—	—
After 10 years	4,343	4,393
Total	<u>\$130,936</u>	<u>\$130,944</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 \$22.7 million and \$24.5 million as of December 31, 2016 and 2015, respectively.

The following table summarizes the ownership structure and ownership percentage of the non-consolidated investments as of December 31, 2016, accounted for using the equity method.

Name of Investee	Ownership Structure	% Ownership
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. 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 are 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 is providing to one of the ventures, engineering services per year approximating 20% to 30% of the approved venture budget, which is expected to be in the range of approximately \$6 million to \$8 million per year. The Company is also required to make annual contributions for the purpose of funding development projects identified by the venture. During 2016, the Company made funding contributions to the investment of \$15.9 million.

The following table summarizes the carrying amount and maximum exposure to loss for the investments accounted for using the equity method as of December 31, 2016 (in thousands)

	<u>Carrying Amount</u>	<u>Maximum Exposure to Loss</u>
Conditional Access Licensing	\$12,751	\$12,751
Combined Conditional Access Development	2,113	18,000

The Company's future total annual funding contributions to CCAD are expected to be in the range of approximately \$16 million to \$18 million, and represent the Company's annual maximum exposure to loss.

During the quarter ended December 31, 2015, the Company recorded a gain of \$2.5 million resulting from the transfer of certain technology to CCAD. An additional \$2.5 million of unrecognized gain is being treated as a basis difference in the investment, and will be recognized over an expected period of four years.

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, 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. For the year ended December 31, 2015, 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 \$0.2 million. These charges are reflected in the Consolidated Statements of Operations.

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, 2016 and 2015 (in thousands):

	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)
	December 31, 2015			
	Level 1	Level 2	Level 3	Total
Certificates of deposit (foreign)	\$ —	\$ 4,208	\$—	\$ 4,208
Corporate bonds	—	6,257	—	6,257
Short-term bond fund	5,005	—	—	5,005
Corporate obligations	—	1	—	1
Money markets	209	—	—	209
Mutual funds	131	—	—	131
Other investments	—	3,695	—	3,695
Interest rate derivatives — liability derivatives	—	(10,759)	—	(10,759)
Foreign currency contracts — asset position	—	7,064	—	7,064
Foreign currency contracts — liability position	—	(24,371)	—	(24,371)

All of the Company's short-term and long-term investments at December 31, 2016 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. As of December 31, 2016, the Company had not recorded any impairment related to such assets and had no other material nonfinancial assets or liabilities requiring adjustments or write-downs to their current fair value.

The Company believes the principal amount of the debt as of December 31, 2016 approximated the fair value because it bears interest at 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

In April 2013, ARRIS entered into senior secured credit facilities having variable interest rates with Bank of America, N.A. and various other institutions, which are comprised of (i) a "Term Loan A Facility" of \$1.1 bil-

lion, (ii) a “Term Loan B Facility” of \$825 million and (iii) a “Revolving Credit Facility” of \$250 million. In June 2015, ARRIS amended and restated its existing credit agreement 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 a new “Term Loan A-1 Facility” to fund the acquisition of Pace. As a result of this exposure to interest rate movements, ARRIS entered into various interest rate swap arrangements, which effectively converted \$625 million of the Company’s variable-rate debt based on one-month LIBOR to an aggregate fixed rate. The aggregated fixed rate changes as certain swaps mature and other swaps begin and could vary up by 50 basis points or down by 25 basis points based on future changes to the Company’s net leverage ratio. Based on the Company’s interest rates as of December 31, 2016, the aggregate fixed rate for swaps in effect and outstanding through December 29, 2017 is 3.15% per annum, and the aggregate fixed rate for swaps in effect and outstanding from December 29, 2017 through March 31, 2020 is 4.00% per annum. 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.

During 2016, ARRIS entered into nine \$50 million interest rate swap arrangements as a result of the additional exposure from the new Term Loan A-1 Facility. These arrangements effectively converted \$450 million of the Company’s variable-rate debt based on one-month LIBOR to an aggregate fixed rate of 2.73% per annum based on the Company’s interest rates as of December 31, 2016. This fixed rate could vary by up 50 basis points or down by 25 basis points based on future changes to the Company’s net leverage ratio. Each of these swaps 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 2016, 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, 2016 and 2015, the Company did not have expenses related to hedge ineffectiveness in earnings.

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 \$2.8 million may be reclassified as an increase to interest expense.

The table below presents the impact of the Company’s derivative financial instruments had on the Accumulated Other Comprehensive Income and Statement of Operations for the years ended December 31, 2016 and 2015 (in thousands):

	Location of Gain(Loss) Reclassified from AOCI into Income	Years Ended December 31,		
		2016	2015	2014
Gain (loss) Recognized in OCI on Derivatives (Effective Portion)	Interest expense	\$2,103	\$(13,256)	\$(8,541)
Amounts Reclassified from Accumulated OCI into Income (Effective Portion)	Interest expense	7,510	7,495	7,550

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

	<u>Balance Sheet Location</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
<i>Derivatives designated as hedging instruments:</i>			
Interest rate derivatives — asset derivatives	Other current assets	222	—
Interest rate derivatives — asset derivatives	Other assets	8,043	—
Interest rate derivatives — liability derivatives	Other accrued liabilities	(2,989)	(4,489)
Interest rate derivatives — liability derivatives	Other noncurrent liabilities	(6,421)	(6,270)

Credit-risk-related contingent features

ARRIS has agreements with each of 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, 2016, the fair value of derivatives in a net liability position, which includes accrued interest but excludes any adjustment for nonperformance risk, related to these agreements was \$1.4 million. As of December 31, 2016, 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 entities 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, 2016, the Company had option collars with notional amounts totaling 35 million euros which mature throughout 2017, forward contracts with notional amounts totaling 55 million euros which mature throughout 2017, forward contracts with a total notional amount of 70 million Australian dollars which mature throughout 2017, forward contracts with notional amounts totaling 45 million Canadian dollars which mature throughout 2017, forward contracts with notional amounts totaling 100.0 million British pounds which mature throughout 2017, forward contracts with notional amounts totaling 374.3 million South African rand which mature throughout 2017 and a swap with notional amount totaling 69 million South African rand which mature in 2017 .

As part of the Pace acquisition, the Company paid the former Pace shareholders 132.5 pence per share in cash consideration, which is approximately 434.3 million British pounds, in the aggregate, as of January 4, 2016. As such, the Company entered into foreign currency forward contracts to purchase British pounds and sell U.S. Dollars to mitigate the volatility related to fluctuations in the foreign exchange rate prior to the closing date. As of December 31, 2015, the Company had forward contracts with notional amounts totaling 385 million British pounds which mature on March 31, 2016. 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 Pace acquisition in January 2016 and cash settled upon maturity on March 31, 2016.

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 Operations. The maximum time frame for ARRIS's derivatives is currently less than 12 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 as of December 31, 2016 and December 31, 2015 were as follows (in thousands):

	<u>Balance Sheet Location</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
<i>Derivatives not designated as hedging instruments:</i>			
Foreign exchange contracts — asset derivatives	Other current assets	\$ 7,369	\$ 6,495
Foreign exchange contracts — asset derivatives	Other assets	—	569
Foreign exchange contracts — liability derivatives	Other accrued liabilities	(3,671)	(23,632)
Foreign exchange contracts — liability derivatives	Other noncurrent liabilities	—	(739)

The change in the fair values of ARRIS's derivatives not designated as hedging instruments recorded in the Consolidated Statements of Operations during the years ended December 31, 2016, 2015, and 2014 were as follows (in thousands):

	<u>Statement of Operations Location</u>	<u>Years Ended December 31,</u>		
		<u>2016</u>	<u>2015</u>	<u>2014</u>
<i>Derivatives not designated as hedging instruments:</i>				
Foreign exchange contracts	Loss (gain) on foreign currency	\$5,909	\$7,597	\$(4,527)

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, 2016 and 2015 were as follows (in thousands):

	<u>2016</u>	<u>2015</u>
Beginning balance	\$ 49,027	\$ 74,320
Warranty reserve at acquisition	43,723	—
Accruals related to warranties (including changes in assumptions)	51,947	19,111
Settlements made (in cash or in kind)	<u>(56,510)</u>	<u>(44,404)</u>
Ending balance	<u>\$ 88,187</u>	<u>\$ 49,027</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 two 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.

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. 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 for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
<i>Net sales to external customers:</i>			
CPE	\$4,747,445	\$3,136,585	\$3,690,454
N&C	2,111,708	1,661,594	1,637,544
Other	<u>(30,035)</u>	<u>153</u>	<u>(5,077)</u>
Total	<u>6,829,118</u>	<u>4,798,332</u>	<u>5,322,921</u>
<i>Direct contribution:</i>			
CPE	684,744	548,840	791,244
N&C	<u>681,608</u>	<u>487,166</u>	<u>430,943</u>
Segment total	<u>1,366,352</u>	<u>1,036,006</u>	<u>1,222,187</u>
Corporate and unallocated costs	(697,834)	(568,336)	(606,834)
Amortization of intangible assets	(397,464)	(227,440)	(236,521)
Integration, acquisition, restructuring and other	<u>(160,337)</u>	<u>(29,277)</u>	<u>(37,498)</u>
Operating income	<u>110,717</u>	<u>210,953</u>	<u>341,334</u>
Interest expense	79,817	70,936	62,901
Loss on investments	21,194	6,220	10,961
(Gain) loss on foreign currency	(13,982)	20,761	2,637
Interest income	(4,395)	(2,379)	(2,590)
Other expense (income), net	<u>3,991</u>	<u>8,362</u>	<u>28,195</u>
Income before income taxes	<u>\$ 24,092</u>	<u>\$ 107,053</u>	<u>\$ 239,230</u>

For the years ended December 31, 2016, 2015 and 2014, the compositions of our corporate and unallocated costs that are reflected in the consolidated statement of operations were as follows (in thousands):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
<i>Corporate and unallocated costs:</i>			
Cost of sales	\$150,588	\$ 56,311	\$ 69,973
Selling, general and administrative expenses	375,747	349,993	349,693
Research and development expenses	<u>171,499</u>	<u>162,032</u>	<u>187,168</u>
Total	<u>\$697,834</u>	<u>\$568,336</u>	<u>\$606,834</u>

The following table summarizes the Company's net intangible assets and goodwill by reportable segment as of December 31, 2016 and 2015 (in thousands):

	<u>CPE</u>	<u>N&C</u>	<u>Total</u>
<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
<u>December 31, 2015</u>			
Goodwill	\$ 682,582	\$331,381	\$1,013,963
Intangible assets, net	525,920	284,528	810,448

The following table summarizes the Company's revenues by products and services as of December 31, 2016, 2015 and 2014 (in thousands):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
<i>CPE:</i>			
Broadband CPE	\$1,683,491	\$1,452,164	\$1,494,925
Video CPE	<u>3,063,954</u>	<u>1,684,421</u>	<u>2,195,529</u>
Sub-total	<u>4,747,445</u>	<u>3,136,585</u>	<u>3,690,454</u>
<i>Network & Cloud:</i>			
Infrastructure equipment	1,800,480	1,407,735	1,435,676
Global services	230,588	181,892	141,625
Cloud solutions	<u>80,640</u>	<u>71,967</u>	<u>60,243</u>
Sub-total	<u>2,111,708</u>	<u>1,661,594</u>	<u>1,637,544</u>
<i>Other:</i>			
Other	<u>(30,035)</u>	<u>153</u>	<u>(5,077)</u>
Total net sales	<u>\$6,829,118</u>	<u>\$4,798,332</u>	<u>\$5,322,921</u>

The Company's three largest customers (including their affiliates, as applicable) are AT&T, 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 2016, 2015 and 2014 is set forth below (in thousands, except percentages):

	<u>Years ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
AT&T and affiliates	\$ 901,001	\$ 347,063	\$ 612,413
% of sales	13.2%	7.2%	11.5%
Charter and affiliates	\$1,064,408 ⁽¹⁾	\$ 960,497	\$1,031,553
% of sales	15.6%	20.0%	19.4%
Comcast and affiliates	\$1,637,519 ⁽¹⁾	\$1,007,376	\$1,012,367
% of sales	24.0%	21.0%	19.0%

- (1) Revenues were reduced by \$30.2 million in total 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 approximately 28.1%, 28.8% and 25.7% of total sales for the years ended December 31, 2016, 2015 and 2014, respectively. International sales for the years ended December 31, 2016, 2015 and 2014 were as follows (in thousands):

	For the Years Ended December 31,		
	2016	2015	2014
Domestic — U.S	\$4,909,698	\$3,418,583	\$3,957,203
International			
Americas, excluding U.S.	982,769	880,581	900,822
Asia Pacific	291,504	142,893	147,921
EMEA	645,147	356,275	316,975
Total international	<u>\$1,919,420</u>	<u>\$1,379,749</u>	<u>\$1,365,718</u>
Total sales	<u>\$6,829,118</u>	<u>\$4,798,332</u>	<u>\$5,322,921</u>

The following table summarizes ARRIS's international property, plant and equipment assets by geographic region as of December 31, 2016 and 2015 (in thousands):

	For the Years Ended December 31,	
	2016	2015
Domestic — U.S	\$220,397	\$223,736
International		
Americas, excluding U.S.	12,838	6,659
Asia Pacific	81,655	74,651
EMEA	38,487	7,265
Total international	<u>\$132,980</u>	<u>\$ 88,575</u>
Total property, plant and equipment assets	<u>\$353,377</u>	<u>\$312,311</u>

Note 11. Inventories

The components of inventory are as follows, net of reserves (in thousands):

	December 31,	
	2016	2015
Raw material	\$ 86,243	\$ 60,287
Work in process	3,877	3,076
Finished goods	461,421	338,229
Total inventories, net	<u>\$551,541</u>	<u>\$401,592</u>

Note 12. Property, Plant and Equipment

Property, plant and equipment, at cost, consisted of the following (in thousands):

	December 31,	
	2016	2015
Land	\$ 68,562	\$ 68,562
Buildings and leasehold improvements	163,333	141,171
Machinery and equipment	440,955	407,110
	672,850	616,843
Less: Accumulated depreciation	(319,473)	(304,532)
Total property, plant and equipment, net	<u>\$ 353,377</u>	<u>\$ 312,311</u>

Note 13. Restructuring 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 severance & termination benefits	Contractual obligations and other	Write-off of property, plant and 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>

Employee severance and termination benefits — In first quarter of 2016, ARRIS completed its acquisition of Pace. ARRIS initiated restructuring plans as a result of the Acquisition that focuses on the rationalization of personnel, facilities and systems across the ARRIS organization.

The estimated cost recorded during 2016 for the restructuring plan was approximately \$96.3 million. This amount is included in the Consolidated Statement of Operations in the line item titled “Integration, acquisition, restructuring and other costs”. The restructuring plan affected approximately 1,545 positions across the Company. The remaining liability is expected to be paid in 2017.

Contractual obligations — ARRIS has restructuring accruals representing contractual obligations that relate to excess leased facilities and equipment. 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 recognized, 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 2018. 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. As of the cease-use date, the fair value of this restructuring liability totaled \$2.2 million.

Write-off of property, plant and equipment — As part of the restructuring plan initiated as a result of the Pace acquisition, the Company recorded a restructuring charge of \$0.7 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 Network and Cloud segment.

Integration

Integration expenses was approximately \$24.2 million, \$1.6 million and \$34.5 million for the years ended December 31, 2016, 2015 and 2014, respectively. The expense was related to outside services and other integration related activities.

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 lease-back 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 lease-back classified as an operating lease. A loss of \$5.3 million was recorded in Other expense (income), net on the Consolidated Statements of Operations at the closing of the transaction in 2015.

At December 31, 2016, the minimum lease payments required on the financing obligation were as follows (in thousands):

2017	\$ 4,136
2018	4,260
2019	4,388
2020	4,520
2021	4,655
Thereafter through 2025	<u>16,102</u>
Total minimum lease payments	<u>\$38,061</u>

Note 15. Indebtedness

The following is a summary of indebtedness and lease financing obligations as of December 31, 2016 and 2015 (in thousands):

	<u>As of December 31, 2016</u>	<u>As of December 31, 2015</u>
Current liabilities:		
Term A loan	\$ 49,500	\$ 49,500
Term A-1 loan	40,000	—
Lease finance obligation	<u>775</u>	<u>758</u>
Current obligations	90,275	50,258
Current deferred financing fees and debt discount ...	<u>(7,541)</u>	<u>(6,667)</u>
	82,734	43,591
Noncurrent liabilities:		
Term A loan	866,250	915,750
Term A-1 loan	730,000	—
Term B loan	543,812	543,812
Revolver	—	—
Lease finance obligation	<u>57,902</u>	<u>58,676</u>
Noncurrent obligations	2,197,964	1,518,238
Noncurrent deferred financing fees and debt discount	<u>(17,955)</u>	<u>(21,995)</u>
	<u>2,180,009</u>	<u>1,496,243</u>
Total	<u>\$2,262,743</u>	<u>\$1,539,834</u>

Senior Secured Credit Facilities

On June 18, 2015, ARRIS Group amended and restated its existing credit agreement dated March 27, 2013 (the “Existing Credit Agreement”) 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 a new term A-1 loan facility to fund the acquisition of Pace. The credit facility under the amended credit agreement (the “Amended Credit Agreement”) is comprised of (i) a “Term Loan A Facility” of \$990 million, (ii) a “Term Loan B Facility” of \$543.8 million, (iii) a “Revolving Credit Facility” of \$500 million and (iv) a “Term Loan A-1 Facility” of \$800 million, was funded upon the closing of the acquisition of Pace in 2016. Under the Amended Credit Agreement, the Term Loan A Facility, Term Loan A-1 Facility and the Revolving Credit Facility will mature on June 18, 2020. The Term Loan B Facility will mature on April 17, 2020. 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, 2016</u>
Term Loan A	LIBOR + 1.75 %	2.52%
Term Loan A-1	LIBOR + 1.75 %	2.52%
Term Loan B	LIBOR ⁽¹⁾ + 2.75 %	3.52%
Revolving Credit Facility ⁽²⁾	LIBOR + 1.75 %	Not Applicable

(1) Includes LIBOR floor of 0.75%

(2) Includes unused commitment fee of 0.35% and letter of credit fee of 1.75% not reflected in interest rate above.

The Amended Credit Agreement provides for adjustments to the interest rates paid on the Term Loan A, Term Loan A-1, Term Loan B 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 Amended Credit Agreement governing the senior secured credit facilities. The Amended Credit Agreement provides terms for mandatory prepayments and optional prepayments and commitment reductions. The Amended 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 Amended 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 of 3.50:1 and a maximum leverage ratio of 3.75:1 (with a scheduled decrease to 3.50:1 in the first quarter of 2017). As of December 31, 2016, ARRIS was in compliance with all covenants under the Amended Credit Agreement.

During 2016, the Company made mandatory prepayments of approximately \$79.5 million related to the senior secured credit facilities. In addition, the Company repaid \$240.2 million of debt assumed in the Pace acquisition in the first quarter of 2016.

Account Receivable Financing Program

In connection with the Combination on January 4, 2016, ARRIS assumed an accounts receivable financing program (the “AR Financing Program” or the “Program”) which was entered into by Pace on June 30, 2015. Under this Program, the Company assigns 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. As of December 31, 2016, there is no outstanding balance under this program.

The AR 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.

Other

As of December 31, 2016, the scheduled maturities of the contractual debt obligations for the next four years are as follows (in thousands):

2017	\$ 89,500
2018	89,500
2019	89,500
2020	1,961,063

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):

	For the Years Ended December 31,		
	2016	2015	2014
Basic:			
Net income attributable to ARRIS International plc.	\$ 18,100	\$ 92,181	\$327,211
Weighted average shares outstanding	190,701	146,388	144,386
Basic earnings per share	<u>\$ 0.09</u>	<u>\$ 0.63</u>	<u>\$ 2.27</u>
Diluted:			
Net income attributable to ARRIS International plc.	\$ 18,100	\$ 92,181	\$327,211
Weighted average shares outstanding	190,701	146,388	144,386
Net effect of dilutive shares	1,484	2,971	3,894
Total	<u>192,185</u>	<u>149,359</u>	<u>148,280</u>
Diluted earnings per share	<u>\$ 0.09</u>	<u>\$ 0.62</u>	<u>\$ 2.21</u>

Potential dilutive shares include stock options, unvested restricted and performance awards and warrants.

For the year ended December 31, 2016, 2015 and 2014, approximately 0.9 million, 6.8 thousand and 4.3 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, 2016, the Company issued 2.3 million shares of its ordinary shares related to the vesting of restricted shares, as compared to 3.2 million shares for the twelve months ended December 31, 2015.

The warrants have a dilutive effect in those periods in which the average market price of the shares exceeds the current effective conversion 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. The dilutive effect of these vested shares was immaterial.

In connection with the Combination, ARRIS issued approximately 47.7 million shares of ARRIS International plc 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 Combination. (See Note 4 *Business Acquisitions* for additional details)

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 governing the Company's senior secured credit facilities contains restrictions on the Company's ability to pay dividends on its ordinary shares.

Note 17. Warrants

During 2016, the Company entered into 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. The table below presents by year, the ordinary shares issuable under outstanding Warrant programs with customers, based on achieving certain purchase levels (in thousands).

Year	Warrants Issuable		Exercise Price per Maximum Share Issuable		
	Minimum	Maximum	\$22.19	\$28.54	Note ¹
2016	1,500	4,000	3,000	1,000	—
2017	2,000	7,500	5,000	2,500	—
2018	1,000	2,500	—	—	2,500

- (1) The exercise price for the 2018 warrants will be determined based upon the lower of 1) the volume-weighted price for the 10-day trading period preceding January 1, 2018 (“the January Price”) or 2) the average of \$28.54 and the January Price.

For Warrants in which an exercise price has been established, 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.

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.

During the fourth quarter of 2016, approximately 2.2 million warrants, with a weighted average exercise price of \$24.56, vested based on the amount of purchases of products and services by the customers from the Company. For the year ended December 31, 2016, ARRIS recorded \$30.2 million 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):

	Years Ended December 31,		
	2016	2015	2014
U.K	\$ (36,300)	\$ (5,321)	\$ (1,604)
U.S	(149,605)	47,063	180,133
Other Foreign	209,997	65,311	60,701
	<u>\$ 24,092</u>	<u>\$107,053</u>	<u>\$239,230</u>

Income tax expense (benefit) consisted of the following (in thousands):

	Years Ended December 31,		
	2016	2015	2014
Current — U.K	\$ 81,822	\$ 559	\$ (94)
U.S.	47,025	2,141	59,197
Other Foreign	31,552	14,476	18,230
	<u>160,399</u>	<u>17,176</u>	<u>77,333</u>
Deferred — U.K.	(23,177)	(30)	121
U.S.	(105,735)	5,119	(160,382)
Other Foreign	(16,356)	329	(5,053)
	<u>(145,268)</u>	<u>5,418</u>	<u>(165,314)</u>
Income tax expense (benefit)	<u>\$ 15,131</u>	<u>\$22,594</u>	<u>\$ (87,981)</u>

A reconciliation of the U.K. statutory income tax rate of 20% for 2016 and the U.S. federal statutory income tax rate of 35% for 2015 and 2014 and the effective income tax rates is as follows:

	<u>Years Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Statutory income tax rate	20.0%	35.0%	35.0%
Effects of:			
State income taxes, net of federal benefit	(10.0)	5.2	(6.6)
Acquired deferred tax assets	—	5.8	(16.5)
U.S. domestic manufacturing deduction	(12.0)	(0.7)	(2.1)
Transaction costs	22.0	—	—
Research and development tax credits	(90.6)	(26.6)	(8.7)
Withholding taxes (U.K. entities)	245.5	—	—
U.K. stamp duty	9.4	—	—
Subpart F income	4.0	4.8	0.8
Changes in valuation allowance	6.0	(26.6)	(44.2)
Foreign tax credits	(14.0)	(20.7)	(0.6)
Non-deductible officer compensation	—	5.3	0.6
Non-U.S. tax rate differential	—	(5.0)	(2.6)
Non-U.K. tax rate differential	(8.9)	—	—
Benefit of other foreign tax regimes	(124.5)	—	—
Recapture of dual consolidated losses	—	1.1	4.0
Taiwan gain	—	34.3	—
Other, net	15.9	9.2	4.1
	<u>62.8%</u>	<u>21.1%</u>	<u>(36.8)%</u>

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,	
	2016	2015
Deferred income tax assets		
Inventory costs	\$ 63,887	\$ 28,728
Accrued vacation	7,062	7,138
Acquisition charges	—	6,556
Allowance for bad debt	7,611	4,396
Equity compensation	18,861	14,673
Federal/state net operating loss carryforwards	53,116	95,571
Foreign net operating loss carryforwards	14,409	10,989
Research and development credits	113,061	79,809
Pension and deferred compensation	15,933	19,166
Warranty reserve	36,693	18,215
Capitalized interest	24,963	—
Capitalized research and development	177,574	215,894
Other	71,500	24,214
Total deferred income tax assets	<u>604,670</u>	<u>525,349</u>
Deferred income tax liabilities:		
Other noncurrent liabilities	(3,713)	(4,394)
Goodwill and intangible assets	(467,957)	(248,231)
Total deferred income tax liabilities	<u>(471,670)</u>	<u>(252,625)</u>
Net deferred income tax assets	133,000	272,724
Valuation allowance	(57,772)	(87,788)
Net deferred income tax assets (liabilities)	<u>\$ 75,228</u>	<u>\$ 184,936</u>

As of December 31, 2016 and December 31, 2015, ARRIS had \$85.7 million and \$218.9 million, respectively, of U.S. federal net operating losses available to offset against future taxable income. During 2016, ARRIS utilized approximately \$66.4 million of U.S. federal net operating losses against taxable income. The U.S. federal net operating losses may be carried forward for twenty years. The available acquired U.S. Federal net operating losses as of December 31, 2016, will expire between the years 2017 and 2031. A significant portion of the acquired U.S. federal net operating losses expire in 2017.

As of December 31, 2016, ARRIS also had \$453.0 million of state net operating loss carryforwards in various states. The amounts available for utilization vary by state due to the apportionment of the Company's taxable income and state laws governing the expiration of these net operating losses. State net operating loss carryforwards of approximately \$26.4 million relate to the exercise of employee stock options and restricted stock ("equity compensation"). When cash benefit is realized from the utilization of these state net operating losses attributable to equity compensation, the benefit is recorded.

ARRIS has foreign net operating loss carryforwards available, as of December 31, 2016, of approximately \$59.5 million with varying expiration dates. NOLs related to our Irish and Luxemburg subsidiaries in the amount of \$23.8 million have indefinite lives. Other foreign NOLs arise from our Canadian subsidiary (\$8.5 million, expiring within 17 years). The net operating losses are subject to various limitations on how and when the losses can be used to offset against taxable income.

During the tax years ending December 31, 2016, and 2015, we utilized \$11.1 and \$0.0 million, respectively, of U.S. federal research and development credits to reduce U.S. federal income tax liabilities. We also utilized \$23.4 million and \$0.1 million of U.S. foreign tax credits during the tax years ending December 31, 2016 and 2015, respectively. As of December 31, 2016, ARRIS has \$91.9 million of available U.S. federal research and development tax credits and \$51.3 million of available state research and development tax credits to carry forward to subsequent years. U.S. research and development credit carryforwards of approximately \$8.9 million relate to the exercise of restricted stock (“equity compensation”). The remaining unutilized U.S. federal research and development tax credits can be carried back one year and carried forward twenty years. The state research and development tax credits carry forward and will expire pursuant to various applicable state rules.

ARRIS’ ability to use U.S. federal and state 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 restrictions attributable to equity transactions that resulted in a change of ownership during prior tax years, as defined in Internal Revenue Code Sections 382, 383 and the separate return limitation year (“SRLY”) rules. These limitations, as noted above, prevent the Company from utilizing certain deferred tax assets and were considered in establishing the valuation allowances.

The valuation allowance for deferred income tax assets of \$57.8 million and \$87.8 million at December 31, 2016 and 2015, respectively, relates to the uncertainty surrounding the realization of certain deferred income tax assets in various jurisdictions. The \$30.0 million net reduction in valuation allowances for the year was due primarily to net operating losses and research and development credits that expired unutilized in the current year. The Company continually reviews the adequacy of its valuation allowances by reassessing whether it is more-likely-than-not to realize its various deferred income tax assets.

An analysis of the deferred tax asset valuation allowances is as follows: (in thousands):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Balance at beginning of fiscal year	\$ 87,788	\$118,629	\$163,745
Additions	17,973	3,312	37,708
Deductions	<u>(47,989)</u>	<u>(34,153)</u>	<u>(82,824)</u>
Balance at end of fiscal year	<u>\$ 57,772</u>	<u>\$ 87,788</u>	<u>\$118,629</u>

As of December 31, 2016, the Company did not provide U.S. federal income taxes or foreign withholding taxes on approximately \$23.8 million of undistributed earnings of its foreign subsidiaries as such earnings are intended to be reinvested indefinitely. Should earnings of the other foreign subsidiaries be distributed in the form of dividends, or otherwise, ARRIS would have additional taxable income and, depending on the company’s tax posture in the year of repatriation, may have to pay additional income taxes. Withholding taxes in various jurisdictions may also apply to the repatriation of foreign earnings. Determination of the amount of unrecognized income tax liability related to these permanently reinvested and undistributed foreign subsidiary earnings is not practicable because of the complexities associated with this hypothetical calculation.

Tabular Reconciliation of Unrecognized Tax Benefits (in thousands):

	<u>For the Period ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Beginning balance	\$ 49,919	\$48,019	\$28,344
Gross increases — tax positions in prior period	8,068	1,599	17,636
Gross decreases — tax positions in prior period	(5,700)	(2,185)	(4,115)
Gross increases — current-period tax positions	27,774	9,578	9,979
Increases (decreases) from acquired businesses	60,796	—	(196)
Changes related to foreign currency translation adjustment and remeasurement	(1,087)	—	—
Decreases relating to settlements with taxing authorities and other	(3,933)	(6,689)	(2,480)
Decreases due to lapse of statute of limitations	(7,784)	(403)	(1,149)
Ending balance	<u>128,053</u>	<u>\$49,919</u>	<u>\$48,019</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, 2016, the Company and its subsidiaries were under income tax audit in various jurisdictions including The United Kingdom, The United States, and various states and other foreign countries. ARRIS does not anticipate any audit adjustments in excess of its current accrual for uncertain tax positions.

Liabilities related to uncertain tax positions were \$137.2 million and \$51.6 million at December 31, 2016 and 2015, respectively, inclusive of interest and penalties of \$9.2 million and \$1.7 million at December 31, 2016 and 2015, respectively. These liabilities at December 31, 2016 and 2015 were reduced by \$28.4 million and \$5.9 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 \$108.7 million and \$46.2 million at December 31, 2016 and 2015, respectively, if recognized and released, would favorably affect earnings.

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 \$7.2 million primarily arising from U.S. Federal and state tax related items. The Company reported approximately \$9.2 million and \$1.7 million, respectively, of interest and penalty accrual related to the anticipated payment of these potential tax liabilities as of December 31, 2016 and 2015. The increase in interest and penalty accrual in 2016 results from interest on the positions added from the acquisition of Pace.

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 existing stock incentive plans were no longer available. However, all outstanding options granted under the previous plans are still exercisable. 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 shares of common stock 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.

In connection with the 2011 acquisition of BigBand Networks, Inc., ARRIS assumed the BigBand Networks, Inc. 2007 Equity Incentive Plan (the “Assumed BigBand Plan”), including the restricted stock units outstanding under the Assumed BigBand Plan at the time of the acquisition. ARRIS may continue to grant awards under the Assumed BigBand Plan in certain circumstances so long as the grants comply with the applicable requirements of NASDAQ. A total of 180,613 shares of the Company’s ordinary shares remain available for issuance under the Assumed BigBand Plan.

Restricted Stock (Non-Performance) and Stock Units

ARRIS grants restricted stock and 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 shares of restricted stock 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 acquisition, 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 Messrs. Stanzione and Margolis time-based restricted shares that otherwise would vest in 2017, 2018 and 2019. The total shares accelerated in December 2015 were 504,833 shares.

The following table summarizes ARRIS’s unvested restricted stock (excluding performance-related) and stock unit transactions during the year ending December 31, 2016:

	<u>Shares</u>	<u>Weighted Average Grant Date Fair Value</u>
Unvested at December 31, 2015	5,985,249	\$23.59
Granted	3,358,005	22.85
Vested	(2,155,527)	20.91
Forfeited	<u>(692,678)</u>	24.17
Unvested at December 31, 2016	<u>6,495,049</u>	24.04

Restricted Shares — Subject to Comparative Market Performance

ARRIS grants to certain employees restricted shares, in which the number of shares 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 shares granted in 2014, the three-year measurement period ended on December 31, 2016. This resulted in an achievement of 99.8% of the target award, or 211,655 shares. The remaining grants outstanding that are subject to market performance are 608,095 shares at target; at 200% performance 1,216,190 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 shares is estimated on the date of grant using a Monte Carlo Simulation model.

The total fair value of restricted shares, including both non-performance and performance-related shares, that vested during 2016, 2015 and 2014 was \$52.3 million, \$118.3 million and \$82.6 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 2016, 2015 and 2014, were as follows: risk-free interest rates of 0.5%, 0.1% and 0.1%, respectively; a dividend yield of 0%; volatility factor of the expected market price of ARRIS’s stock of 0.37, 0.41, and 0.37, 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 \$4.6 million, \$5.1 million and \$4.1 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Unrecognized Compensation Cost

As of December 31, 2016, there was approximately \$124.6 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 2.7 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.

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 Chief Executive Officer 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.

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, 2016 and 2015 (in thousands):

	U.S. Pension Plans		Non-U.S. Pension Plans	
	2016	2015	2016	2015
Change in Projected Benefit Obligation:				
Projected benefit obligation at beginning of year	\$ 42,999	\$ 46,550	\$ 36,372	\$ 35,541
Service cost	—	—	703	738
Interest cost	1,751	1,716	614	661
Actuarial (gain) loss	2,024	(3,962)	81	708
Benefit payments	(1,504)	(1,305)	(1,041)	(1,276)
Settlements	—	—	(1,626)	—
Foreign currency	—	—	603	—
Projected benefit obligation at end of year	<u>\$ 45,270</u>	<u>\$ 42,999</u>	<u>\$ 35,706</u>	<u>\$ 36,372</u>
Change in Plan Assets:				
Fair value of plan assets at beginning of year	\$ 13,516	\$ 14,585	\$ 9,232	\$ 8,923
Actual return on plan assets	751	81	131	236
Company contributions	5,747	155	11,120	1,273
Expenses and benefits paid from plan assets	(1,504)	(1,305)	—	(1,200)
Settlements	—	—	(1,626)	—
Foreign currency	—	—	154	—
Fair value of plan assets at end of year ⁽¹⁾	<u>\$ 18,510</u>	<u>\$ 13,516</u>	<u>\$ 19,011</u>	<u>\$ 9,232</u>
Funded Status:				
Funded status of plan	\$(26,760)	\$(29,483)	\$(16,695)	\$(27,140)
Unrecognized actuarial (gain) loss	10,720	9,196	(2,038)	(4,320)
Net amount recognized	<u>\$(16,040)</u>	<u>\$(20,287)</u>	<u>\$(18,733)</u>	<u>\$(31,460)</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 Chief Executive and certain executive officers of \$21.2 million as of December 31, 2016 and \$18.0 million as of December 31, 2015, 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	
	2016	2015	2016	2015
Current liabilities	\$ (399)	\$ (426)	\$ —	\$ —
Noncurrent liabilities	(26,361)	(29,057)	(16,695)	(27,140)
Accumulated other comprehensive income (loss) ⁽¹⁾	10,720	9,196	(2,038)	(4,320)
Total	<u>\$(16,040)</u>	<u>\$(20,287)</u>	<u>\$(18,733)</u>	<u>\$(31,460)</u>

- (1) The accumulated other comprehensive income on the Consolidated Balance Sheets as of December 31, 2016 and 2015 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		
	2016	2015	2014	2016	2015	2014
Net (gain) loss	\$2,068	\$(3,203)	\$5,992	\$ 225	\$ 813	\$1,077
Amortization of net gain (loss)	(544)	(834)	(305)	248	(529)	(464)
Adjustments	—	—	—	1,849	—	—
Foreign currency	—	—	—	31	—	—
Total recognized in other (loss) comprehensive income	<u>\$1,524</u>	<u>\$(4,037)</u>	<u>\$5,687</u>	<u>\$2,353</u>	<u>\$ 284</u>	<u>\$ 613</u>

Information for defined benefit plans with accumulated benefit obligations or projected benefit obligation in excess of plan assets as of December 31, 2016 and 2015 is as follows (in thousands):

	U.S. Pension Plans		Non-U.S. Pension Plans	
	2016	2015	2016	2015
Accumulated benefit obligation in excess of plan assets:				
Accumulated benefit obligation	\$45,269	\$42,999	\$27,551	\$26,966
Fair value of plan assets	18,510	13,516	19,011	9,232
Projected benefit obligation in excess of plan assets:				
Projected benefit obligation	\$45,269	\$42,999	35,706	\$36,372
Fair value of plan assets	18,510	13,516	19,011	9,232

Net periodic pension cost for 2016, 2015 and 2014 for pension and supplemental benefit plans includes the following components (in thousands):

	U.S. Pension Plans			Non-U.S. Pension Plans		
	2016	2015	2014	2016	2015	2014
Service cost	\$ —	\$ —	\$ —	\$ 703	\$ 738	\$ 751
Interest cost	1,751	1,716	1,783	614	661	599
Return on assets (expected)	(795)	(839)	(874)	(275)	(176)	(166)
Amortization of net actuarial loss(gain) ⁽¹⁾	544	834	305	(70)	529	464
Settlement charge	—	—	—	(178)	—	—
Adjustments	—	—	—	(1,849)	—	—
Foreign currency	—	—	—	(31)	—	—
Net periodic pension cost	<u>\$1,500</u>	<u>\$1,711</u>	<u>\$1,214</u>	<u>\$(1,086)</u>	<u>\$1,752</u>	<u>\$1,648</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, 2017 based on December 31, 2016 plan measurements are \$0.6 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, 2016 and 2015 are as set forth below (in percentage):

	U.S. Pension Plans			Non-U.S. Pension Plans		
	2016	2015	2014	2016	2015	2014
<i>Weighted-average assumptions used to determine benefit obligations:</i>						
Discount rate	3.90%	4.15%	3.75%	1.30%	1.70%	1.90%
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	4.15%	3.75%	4.50%	1.70%	1.90%	1.80%
Expected long-term rate of return on plan assets	6.00%	6.00%	6.00%	1.60%	2.00%	2.00%
Rate of compensation increase(1)	N/A	N/A	N/A	3.00%	3.00%	3.25%

(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 2016 and 2015. Rate of compensation increase is 4.50% for indirect labor and 2.00% for direct labor for 2014.

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 2017 for the U.S. Pension plan, however the Company may make a voluntary contribution. The Company estimates it will make funding contributions of \$1.5 million in 2017 for the non-U.S. plan.

As of December 31, 2016, the expected benefit payments related to the Company's defined benefit pension plans during the next ten years are as follows (in thousands):

	U.S. Pension Plans	Non-U.S. Pension Plans
2017	\$ 1,629	\$ 2,067
2018	16,443	2,486
2019	1,689	2,083
2020	1,809	2,323
2021	1,929	2,489
2022 — 2026	10,152	12,817

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, 2016 and 2015:

	U.S. Pension Plans			
	Target		Actual	
	2016	2015	2016	2015
Equity securities	30% - 40%	40% - 45%	30%	40%
Debt securities	0% - 5%	0% - 5%	2%	2%
Cash and cash equivalents	60% - 70%	50% - 60%	68%	58%
	100%	100%	100%	100%

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 of the Notes to the Consolidated Financial Statements) as of December 31, 2016 and 2015 (in thousands):

	December 31, 2016			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents ⁽¹⁾	\$ —	\$12,722	\$—	\$12,722
Equity securities ⁽²⁾ :				
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 ⁽³⁾ :	743	—	—	743
Total	<u>\$5,787</u>	<u>\$12,722</u>	<u>\$—</u>	<u>\$18,509</u>
	December 31, 2015			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents ⁽¹⁾	\$ —	\$ 7,424	\$—	\$ 7,424
Equity securities ⁽²⁾ :				
U.S. large cap	1,330	—	—	1,330
U.S. mid cap	1,160	—	—	1,160
U.S. small cap	1,160	—	—	1,160
International	1,757	—	—	1,757
Fixed income securities ⁽³⁾ :	685	—	—	685
Total	<u>\$6,092</u>	<u>\$ 7,424</u>	<u>\$—</u>	<u>\$13,516</u>

- (1) Cash and cash equivalents, which are used to pay benefits and administrative expenses, are held in a 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 \$16.4 million, \$16.6 million and \$15.3 million in 2016, 2015 and 2014, 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 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, was \$4.2 million and \$3.6 million at December 31, 2016 and 2015, respectively. Total expenses included in continuing operations for the matching contributions were approximately \$0.2 million and \$0.1 million in 2016 and 2015, 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 \$3.0 million and \$2.8 million at December 31, 2016 and 2015, respectively.

The Company also has a deferred retirement salary plan, which was limited to certain current or former officers of C-COR. 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 \$1.6 million and \$1.7 million at December 31, 2016 and 2015, respectively. Total expenses (income) included in continuing operations for the deferred retirement salary plan were approximately \$0.4 million and \$0.3 million for 2016 and 2015, 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, 2016 and 2015 (in thousands):

	Available-for sale securities	Derivative instruments	Change related to pension liability	Cumulative translation adjustments	Total
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)	15	5,821	319	—	6,155
Net current-period other comprehensive income (loss)	4	7,452	(2,615)	11,096	15,937
Balance as of December 31, 2016	<u>\$137</u>	<u>\$ 671</u>	<u>\$(6,810)</u>	<u>\$ 9,293</u>	<u>\$ 3,291</u>

	Available-for sale securities	Derivative instruments	Change related to pension liability	Cumulative translation adjustments	Total
Balance as of December 31, 2014	\$ 25	\$(3,166)	\$(7,181)	\$(725)	\$(11,047)
Other comprehensive (loss) income before reclassifications	(64)	(8,319)	2,044	(1,078)	(7,417)
Amounts reclassified from accumulated other comprehensive income (loss)	172	4,704	942	—	5,818
Net current-period other comprehensive income (loss)	108	(3,615)	2,986	(1,078)	(1,599)
Balance as of December 31, 2015	<u>\$133</u>	<u>\$(6,781)</u>	<u>\$(4,195)</u>	<u>\$(1,803)</u>	<u>\$(12,646)</u>

Note 22. Repurchases of Stock

Upon completing the Combination, ARRIS International plc conducted a court-approved process in accordance with section 641(1)(b) of the UK 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 early 2016, the Company's Board of Directors approved a \$300 million share repurchase authorization replacing all prior programs. During 2016, the Company repurchased 7.4 million shares of its common stock for \$178.0 million at an average stock price of \$24.09. The remaining authorized amount for stock repurchases under

this plan was \$122.0 million as of December 31, 2016. Unless terminated earlier by a Board resolution, this new plan will expire when ARRIS has used all authorized funds for repurchase.

During 2015, ARRIS repurchased 0.9 million shares of the Company's common stock at an average price of \$28.70 per share, for an aggregate consideration of approximately \$25.0 million.

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, 2016 were as follows (in thousands):

	<u>Operating Leases</u>
2017	\$ 31,742
2018	26,745
2019	22,349
2020	19,129
2021	16,729
Thereafter	50,128
Less sublease income	<u>(1,977)</u>
Total minimum lease payments	<u>\$164,845</u>

Total rental expense for all operating leases amounted to approximately \$34.0 million, \$26.9 million and \$32.0 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Additionally, the Company had contractual obligations of approximately \$692.9 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, 2016 are expected to be satisfied by 2017.

Bank Guarantees

The Company has outstanding bank guarantees, of which certain amounts are collateralized by restricted cash. As of December 31, 2016, the restricted cash associated with the outstanding bank guarantee was \$1.5 million which is reflected in Other Assets and \$0.1 million in Other Current Asset 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 otherwise, 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, with respect to two of the matters listed in Part II, Item 1 “Legal Proceedings”, the Company estimates the aggregate range of loss for which a reasonable estimate can be made, to be between \$0 and \$10.0 million. This estimate covers only two of the matters listed in Part II, Item 1 “Legal Proceedings” and we are currently unable to reasonably estimate the possible loss or range of possible loss for each of the remaining identified matters. 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

On February 22, 2017, ARRIS, Broadcom Corporation, and a subsidiary of Broadcom entered into a Stock and Asset Purchase Agreement (“Purchase Agreement”), pursuant to which, upon the terms and subject to the satisfaction or waiver of the conditions in the Purchase Agreement, ARRIS will acquire Brocade Communication Systems Inc.’s Ruckus Wireless and ICX Switch business for approximately \$800 million in cash, subject to adjustment as provided in the Purchase Agreement. The acquisition is subject to the completion of the acquisition of Brocade by Broadcom.

This portfolio will expand ARRIS’s leadership in converged wired and wireless networking technologies beyond the home into the education, public venue, enterprise, hospitality, and MDU segments. ARRIS plans to establish a dedicated business unit within the company focused on innovative wireless networking and wired switching technology to address evolving and emerging needs across a number of vertical markets.

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 2016 Ended,			
	March 31,	June 30,	September 30	December 31, ⁽¹⁾⁽²⁾
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.	<u>\$ (202,573)</u>	<u>\$ 84,228</u>	<u>\$ 48,162</u>	<u>\$ 88,283</u>
Net (loss) income per basic share . . .	\$ (1.06)	\$ 0.44	\$ 0.25	\$ 0.46
Net (loss) income per diluted share	\$ (1.06)	\$ 0.44	\$ 0.25	\$ 0.46
	Quarters in 2015 Ended			
	March 31,	June 30,	September 30, ⁽³⁾	December 31, ⁽⁴⁾
Net sales	\$1,215,158	\$1,260,077	\$1,221,416	\$1,101,681
Gross margin	336,556	364,361	359,333	358,673
Operating (loss) income	45,718	51,542	60,781	52,912
Net (loss) income attributable to ARRIS Group, Inc.	<u>\$ 19,126</u>	<u>\$ 16,758</u>	<u>\$ 26,256</u>	<u>\$ 30,041</u>
Net income per diluted share	\$ 0.13	\$ 0.11	\$ 0.18	\$ 0.20
Net income per basic share	\$ 0.13	\$ 0.11	\$ 0.18	\$ 0.20

Year 2016

- (1) For the quarter ended December 31, 2016, the Company recorded \$16.4 million as a reduction to net sales in connection with Warrants.
- (2) 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 4th 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 4th 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 4th quarter.

Year 2015

- (3) The Company recorded a tax benefit of \$27.3 million primarily from the release of valuation allowances from deferred tax assets recorded for U.S. federal net operating losses arising from the acquisition of the Motorola Home business from Google. The Company also recorded a tax expense of \$18.9 million on a gain recognition agreement for its Taiwanese entity, inclusive of a benefit of \$18.9 million obtained from foreign tax credits generated by the transaction.
- (4) \$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 during Q4 of 2015.

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 2017 (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 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, 2016:

<u>Plan Category</u>	<u>Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights ⁽¹⁾</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 1st Column) ⁽²⁾</u>
Equity compensation plans approved by security holders	8,297,209	—	23,878,061
Equity compensation plans not approved by security holders	—	—	—
Total	8,297,209	—	23,878,061

(1) The total number of securities to be issued upon exercise of outstanding options, warrants and rights consists of, upon vesting, restricted shares of 8,297,209.

(2) Represents securities available for future issuance under current plans. 23,878,061 stock options or 12,769,016 restricted shares are available under for issuance the ARRIS 2016 Stock Incentive Plan (the “2016 Pan”). 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. 1,460,532 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. 180,613 shares are available for issuance under the BigBand Networks, Inc. 2007 Equity Incentive Plan.

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, 2017” 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	80
Consolidated Balance Sheets at December 31, 2016 and 2015	81
Consolidated Statements of Operations for the years ended December 31, 2016, 2015 and 2014	82
Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2016, 2015 and 2014	83
Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014	84
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2016, 2015 and 2014	86
Notes to the Consolidated Financial Statements	87

(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 Group, Inc. (as predecessor registrant; file no 000-31254) filings unless otherwise noted</u>
2.1	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
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, Exhibit 4.1
4.2	Registration Rights Agreement with General Instrument Holdings, Inc.	April 18, 2013, Form 8-K, 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
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, 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, Exhibit 10.10(d)

Exhibit Number	Description of Exhibit	The filings referenced for incorporation by reference are ARRIS Group, Inc. (as predecessor registrant; file no 000-31254) filings unless otherwise noted
10.1(c)*	Amendment to Employment Agreement with Robert J. Stanzione, dated December 8, 2006	December 12, 2006 Form 8-K, 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, 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, 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 12, 2006 Form 8-K, 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, Exhibit 10.6
10.3(a)*	Employment Agreement with Ronald M. Coppock, dated December 8, 2006	December 12, 2006 Form 8-K, Exhibit 10.1
10.3(b)*	First Amendment to Employment Agreement with Ronald M. Coppock, dated November 26, 2008	November 28, 2008 Form 8-K, Exhibit 10.3
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 of ARRIS International plc, 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 of ARRIS International plc, Exhibit 10.13
10.7*	Form of Opt Plan Waiver	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit
10.8*	ARRIS International plc Amended and Restated Employee Stock Purchase Plan	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit 10.2
10.9*	ARRIS International plc 2011 Stock Incentive Plan	January 4, 2016 Form 8-K of ARRIS International
10.10*	Broadband Parent Corporation 2001 Stock Incentive Plan	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit 10.4
10.11*	ARRIS Group, Inc. 2004 Stock Incentive Plan	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit 10.5
10.12*	ARRIS Group, Inc. 2007 Stock Incentive Plan	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit 10.6
10.13*	ARRIS Group, Inc. 2008 Stock Incentive Plan	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit 10.7

Exhibit Number	Description of Exhibit	The filings referenced for incorporation by reference are ARRIS Group, Inc. (as predecessor registrant; file no 000-31254) filings unless otherwise noted
10.14*	BigBand Networks, Inc. 2007 Equity Incentive Plan	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit 10.8
10.15*	Pace Sharesave Plan	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit 10.9
10.16*	Assumption Agreement for benefit plans (Pace Combination)	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit 10.10
10.17*	Form of Deed of Grant for Pace Sharesave Plan	January 4, 2016 Form 8-K of ARRIS International plc, Exhibit 10.11
10.18*	Form of Stock Options Grant under 2001 and 2004 Stock Incentive Plans	March 31, 2005 Form 10-Q, Exhibit 10.20
10.19*	Form of Restricted Stock Grant under 2001 and 2004 Stock Incentive Plans	March 31, 2005 Form 10-Q, Exhibit 10.21
10.20*	Form of Incentive Stock Option Agreement	September 30, 2007, Form 10-Q Exhibit 10.1
10.21*	Form of Nonqualified Stock Option Agreement	September 30, 2007, Form 10-Q Exhibit 10.2
10.22*	Form of Restricted Stock Award Agreement	September 30, 2007, Form 10-Q Exhibit 10.3
10.23*	Form of Nonqualified Stock Options Agreement	April 11, 2008, Form 8-K Exhibit 10.1
10.24*	Form of Restricted Stock Grant	April 11, 2008, Form 8-K Exhibit 10.2
10.25*	Form of Restricted Stock Unit Grant	April 11, 2008, Form 8-K Exhibit 10.3
10.26*	Form of Restricted Stock Agreement	March 31, 2009, Form 10-Q, Exhibit 10.24
10.27*	Form of Restricted Stock Unit	March 31, 2009, Form 10-Q, Exhibit 10.24
10.28*	Assumption Agreement for Benefit Plans (Motorola Home acquisition)	April 16, 2013, Form 8-K, 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, Exhibit 10.3
10.30*	Form of Change of Control Waiver (Motorola Home acquisition)	April 16, 2013, Form 8-K, Exhibit 10.4
10.31	Amended and Restated Credit Agreement dated as of June 18, 2015	June 19, 2015, Form 8-K, Exhibit 10.1
10.32*	ARRIS International plc 2016 Stock Incentive Plan	May 12, 2016, Form 8-K, Exhibit 10.1
21	Subsidiaries of the Registrant	Filed herewith.

**The filings referenced for
incorporation by reference are
ARRIS Group, Inc. (as
predecessor registrant; file no 000-31254)
filings unless otherwise noted**

Exhibit Number	Description of Exhibit	
23	Consent of Independent Registered Public Accounting Firm	Filed herewith.
24	Powers of Attorney	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, 2017

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 Bruce W. McClelland	Chief Executive Officer	March 1, 2017
/s/ RJ STANZIONE Robert J. Stanzione	Executive Chairman and Chairman of the Board of Directors	March 1, 2017
/s/ DAVID B. POTTS David B. Potts	Executive Vice President, Chief Financial Officer and Chief Accounting Officer	March 1, 2017
/s/ ANDREW BARRON* Andrew Barron	Director	March 1, 2017
/s/ ALEX B. BEST* Alex B. Best	Director	March 1, 2017
/s/ J. TIMOTHY BRYAN* J. Timothy Bryan	Director	March 1, 2017
/s/ JAMES A. CHIDDIX* James A. Chiddix	Director	March 1, 2017
/s/ ANDREW T. HELLER* Andrew T. Heller	Director	March 1, 2017
/s/ JEONG H. KIM* Jeong H. Kim	Director	March 1, 2017
/s/ DOREEN A. TOBEN* Doreen A. Toben	Director	March 1, 2017
/s/ DEBORA J. WILSON* Debora J. Wilson	Director	March 1, 2017
/s/ DAVID A. WOODLE* David A. Woodle	Director	March 1, 2017
*By: /s/ PATRICK W. MACKEN Patrick W. Macken (as attorney in fact for each person indicated)		

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 Taiwan, Ltd. (Taiwan)
ARRIS Global Procurement Ltd. (Hong Kong)
Singapore Branch
Taiwan Branch
ARRIS Technology (Hangzhou) Ltd. (China)
Beijing Branch
Shanghai Branch

ARRIS Hong Kong Services Ltd. (Hong Kong)
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)
General Instrument Switzerland GmbH (Switzerland)

ARRIS Global Ltd. (UK)
Pace Aus Pty. Ltd. (Australia)
ARRIS Group India Private Limited (India)
ARRIS 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)
Pace International Finance Ltd. (UK)
Pace Brasil – Industria Electronica e Comercio Ltda. (Brazil)
Pace 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)
US Branch
Pace Distribution (Overseas) Ltd. (UK)
Pace Europe S.A.S. (France)
Pace Overseas Distribution Ltd. (UK)
Pace Overseas 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. 333-208849 on Form S-8 (Pace Sharesave Plan)
- (2) 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)
- (3) Registration Statement No. 333-208847 on Form S-8 (ARRIS International plc Amended and Restated Employee Stock Purchase Plan)
- (4) Registration Statement No. 333-208846 on Form S-8 (ARRIS International plc 2011 Stock Incentive Plan)

of our reports dated March 1, 2017, 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, 2016.

/s/ Ernst & Young LLP

Atlanta, Georgia
March 1, 2017

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 internal 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, 2017

/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 internal 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, 2017

/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, 2016, 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, 2017.

/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, 2016, 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, 2017.

/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.