SPIRENT

News Release

SPIRENT COMMUNICATIONS PLC

PRELIMINARY RESULTS FOR THE YEAR ENDED 31 DECEMBER 2014

London, UK – 26 February 2015: Spirent Communications plc ("Spirent", the "Company" or the "Group") (LSE: SPT), a leading communications technology company, today announces its preliminary results for the financial year ended 31 December 2014.

Results summary

$ million	**2014**	2013
Reported		
Revenue	**457.2**	413.5
Operating profit	**23.7**	39.1
Profit before tax	**24.1**	39.1
Basic earnings per share (cents)	**3.35**	5.10
Total dividend per share[1] (cents)	**3.89**	3.54
Free cash flow[2]	**10.7**	43.9
Adjusted		
Operating profit[3]	**46.0**	50.1
Adjusted basic earnings per share[4] (cents)	**5.82**	5.71

Notes

1 Dividends are determined in US dollars and paid in sterling at the exchange rate prevailing when the dividend is proposed. The final dividend proposed for 2014 of 2.21 cents per Ordinary Share is equivalent to 1.43 pence per Ordinary Share.

2 Operating cash flow after tax, net interest and net capital expenditure.

3 Adjusted operating profit is before charging exceptional items, acquisition related costs, acquired intangible asset amortisation and impairment and share-based payment.

4 Adjusted basic earnings per share is based on adjusted earnings as set out in note 7 of Notes to the preliminary consolidated financial statements.

Financial highlights

- Group revenue up 11% to $457.2 million (2013: $413.5 million), acquisitions contributed $18.6 million, with growth in all operating divisions and in all geographic regions.
- Book to bill ratio 103 (2013: 105).
- Group adjusted operating profit $46.0 million (2013: $50.1 million) after absorbing $24.4 million increased organic investment in product development, sales and marketing and support services.
- Dividend up 10%. Final dividend proposed 2.21 cents per Ordinary Share, giving full year dividend of 3.89 cents per Ordinary Share.

- Free cash flow $10.7 million (2013: $43.9 million) affected by high activity in December and investment in new improved leasehold facilities; cash closed at $99.8 million after acquisition consideration of $85.9 million and share buyback and dividends totalling $38.6 million.

Operational and strategic highlights

2014 saw increased investment in the key areas which are critical for future growth with 85 releases of new solutions and new functionality.

Notable events during the year were as follows:

- Expansion of served markets through strategic technology acquisitions, including customer experience management, 4G voice and video services, and device intelligence;
- In high speed Ethernet we were the first vendor to show working 400G Ethernet test capability to meet early design and development needs, in conjunction with Huawei and Xilinx;
- For Mobility testing, we continued to be the choice of industry leaders, as China Mobile Research Institute used our Landslide solution to verify the performance of its 4G/3G evolved packet core network;
- We addressed the complex new testing challenges and scale demands of the latest wireless and machine-to-machine devices and services with the launch of our Elevate Test Framework, with an initial focus on voice over LTE (“VoLTE”) and rich communication services (“RCS”);
- Our security test solutions gained additional industry recognition, with Spirent Avalanche NEXT winning the “Best of Interop 2014” award in the Performance category for delivering application performance testing capabilities into the realm of traditional IT;
- In the areas of cloud and virtualization we advanced our position software-defined networking (“SDN”) testing with new capabilities for service providers on Spirent TestCenter and with Spirent Velocity, the first open-framework, cloud-based test platform for rapid development and validation of SDN and network functions virtualization technologies and deployments;
- We addressed the increasingly important issue of Global Navigation Satellite System (“GNSS”) vulnerability in critical applications with the release of Spirent’s SimSAFE, a test bed that enables evaluation of GNSS receiver resilience and aids in the development of counter measures.

Outlook

Following the sharp slowdown in the US at some of our customers in the third quarter of 2014, we saw a marked uplift in business at the end of the year.

Whilst there continue to be near term uncertainties and volatility we expect to see an increased level of demand for our solutions and services as the year unfolds, which will result in a greater than usual second half weighting. This will be exacerbated by the later timing of the shipment of a major contract for hand-held test tools of $16 million in the second half of 2015 compared to $12 million shipped in the first quarter of 2014.

The Board remain confident that further progress will be achieved during 2015 and that the Group will benefit from continued investment to create long term strategic value. We have a number of major new solutions that will be delivered to the market in the second half of 2015 and we will continue to pursue areas of opportunity to expand the markets we serve.

Eric Hutchinson, Chief Executive Officer, commented:

"2014 saw fundamental changes in the data communications industry, which in turn caused uncertainty and volatility in demand across all sectors, customer types and regions. Change in technologies and deployment of virtual networks challenge established products and business models, but change is the lifeblood that creates opportunity driving new business for Spirent.

The reorganisation of Spirent has resulted in improved customer service and our decision to invest is strengthening our business. We are making investment decisions to target those areas which offer the most value to our existing and future customers. This in turn will deliver the best return on investment for the Company."

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Enquiries

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The Company will host a results presentation today at 9.15am for 9.30am UK time at UBS Limited, 7th Floor, 1 Finsbury Avenue, London EC2M 2PP. A simultaneous webcast of the presentation will be available in the Investors section of the Spirent Communications plc website http://corporate.spirent.com/.

About Spirent Communications plc

Spirent Communications plc is a global leader in test and measurement inspiring innovation within development labs, communication networks and IT organisations. We enable today's communication ecosystem as well as tomorrow's emerging enterprises to deploy life enriching communications networks, devices, services and applications. Further information about Spirent Communications plc can be found at http://corporate.spirent.com/.

Spirent Communications plc Ordinary Shares are traded on the London Stock Exchange (ticker: SPT). The Company operates a Level 1 American Depositary Receipt ("ADR") programme with each ADR representing four Spirent Communications plc Ordinary Shares. The ADRs trade in the US over-the-counter ("OTC") market under the symbol SPMYY and the CUSIP number is 84856M209. Spirent ADRs are quoted on the Pink OTC Markets electronic quotation service which can be found at http://www.otcmarkets.com/otc-pink/home.

Cautionary statement regarding forward-looking statements

This document may contain forward-looking statements which are made in good faith and are based on current expectations or beliefs, as well as assumptions about future events. You can sometimes, but not always, identify these statements by the use of a date in the future or such words as "will", "anticipate", "estimate", "expect", "project", "intend", "plan", "should", "may", "assume" and other similar words. By their nature, forward-looking statements are inherently predictive and speculative and involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future. You should not place undue reliance on these forward-looking statements, which are not a guarantee of future performance and are subject to factors that could cause our actual results to differ materially from those expressed or implied by these statements. The Company undertakes no obligation to update any forward-looking statements contained in this document, whether as a result of new information, future events or otherwise.

PRELIMINARY RESULTS FOR THE YEAR ENDED 31 DECEMBER 2014

CHAIRMAN'S STATEMENT

Positioning the Group for growth

Last year, we set out our strategy to restore revenue to growth in 2014 which would fund the necessary investment in product development and expansion of sales and marketing activities for the long term growth of the business. We highlighted that we had undertaken a radical reorganisation of the activities within Spirent with the key strategic objective of creating long term value by harnessing Spirent's leading capabilities and talent and that this would take time to be fully reflected in the financial performance of the Company. 2014 was Eric Hutchinson's first full year as Chief Executive. He and his new team have re-energised the Company and laid the foundations for future growth.

It is pleasing to report that Group revenue increased by 11 per cent to $457.2 million (2013: $413.5 million) of which $18.6 million came from acquisitions made during the year. Revenue grew in all divisions and in all regions. This achievement was against a backdrop of some strong headwinds and changes in the markets that we serve, particularly in the third quarter. After achieving 16 per cent growth in revenue in the first half of 2014, we saw a significant slowdown in the second half in our service provider ecosystem in North America as a major customer reorganised and paused in its investment cycle. We also saw structural changes in the smartphone market and intense competition over a lower level of demand. Whilst the year-on-year increase in the second half slowed to 6 per cent, the fourth quarter saw strong demand with revenue up 9 per cent over the same period in 2013.

The growth in revenue has enabled us to fund the planned additional investment in product development and in sales and marketing that we highlighted in last year's Annual Report. Innovation is at the heart of any technology company and Spirent invested $115.4 million in product development in 2014, an organic increase of 8 per cent over 2013. During the year, as part of Spirent's continuing strategic investment programme, we released 85 new solutions and functionality which enhance our competitive advantage and spearhead future sales growth.

Additional investment of $12.9 million in sales and marketing, excluding the effect of acquisitions during the year, has enabled us to build on our customer relationships, drive development of and access to markets and to gain market share.

Return on sales based on adjusted operating profit was 10 per cent for the Group, down from 12 per cent last year, reflecting the impact of the investment in the business to drive recovery and long term growth.

Basic earnings per share for the Group decreased in 2014 to 3.35 cents per share (2013: 5.10 cents). Adjusted basic earnings per share was 5.82 cents (2013: 5.71 cents); this is before charging exceptional items, acquisition related costs, acquired intangible asset amortisation and impairment and share-based payment.

The Group's free cash flow generation was $10.7 million in 2014 (2013: $43.9 million); a cash conversion ratio of 0.5 times reported earnings (2013: 1.3 times). The Company has no debt and cash balances were $99.8 million at 31 December 2014.

Acquisitions

Spirent made good progress in its strategy of acquiring new capabilities and technologies completing a number of focused acquisitions during 2014 for a total consideration of $85.9 million funded out of Spirent's existing cash resources. As a Board we evaluate each acquisition opportunity to ensure that it meets our strategic objectives as well as the financial hurdles set for investment.

In February 2014 Spirent acquired DAX Technologies Corp. and also a majority stake of 58 per cent of Testing Technologies IST GmbH. In July, we acquired the assets of the Radvision TBU and then finally in September Mobilethink A/S and its wholly owned subsidiary, Tweakker. These acquisitions are discussed in the financial review. All of our 2014 acquisitions are on track to deliver revenue and profit growth.

We very much welcome the employees of all these companies into the Spirent Group.

Employees

Spirent is its employees. We have highly skilled and creative employees and as a communications technology company, our employees and their capabilities hold the key to the long term prosperity of the Company. I would like to thank all our employees for their hard work and commitment to the future success of the Group.

Dividends

The final dividend recommended is 2.21 cents per share compared with 2.01 cents per share for 2013. This brings the total dividend for 2014 to 3.89 cents per share compared with 3.54 cents for 2013. The increase in total dividend per share is 10 per cent. In sterling terms this also represents an increase in the distribution to our shareholders of 10 per cent.

Board changes

In February 2014, we welcomed Rachel Whiting to the Board as Chief Financial Officer. Ian Brindle, our Senior Independent Director, and Chair of Audit Committee, was appointed to the Board in December 2006 and has signalled his intention to step down from the Board. We are in the process of recruiting his replacement and we are delighted to report that Sue Swenson has agreed to succeed Ian as Senior Independent Director.

Outlook

Following the sharp slowdown in the US at some of our customers in the third quarter of 2014, we saw a marked uplift in business at the end of the year.

Whilst there continue to be near term uncertainties and volatility we expect to see an increased level of demand for our solutions and services as the year unfolds, which will result in a greater than usual second half weighting. This will be exacerbated by the later timing of the shipment of a major contract for hand-held test tools of $16 million in the second half of 2015 compared to $12 million shipped in the first quarter of 2014.

The Board remain confident that further progress will be achieved during 2015 and that the Group will benefit from continued investment to create long term strategic value. We have a number of major new solutions that will be delivered to the market in the second half of 2015 and we will continue to pursue areas of opportunity to expand the markets we serve.

CHIEF EXECUTIVE OFFICER'S REVIEW

2014 saw fundamental changes in the data communications industry, which in turn caused uncertainty and volatility in demand across all sectors, customer types and regions. Changes in technologies and deployment of virtual networks challenge established products and business models, but change also creates opportunity driving new business for Spirent. Constantly evolving and developing data technologies demand new test methodologies and solutions, the lifeblood of Spirent's business.

There are a number of major themes which are driving these changes, and it is in these areas where we see significant opportunities for our business. We have divided these opportunities into six specific growth categories, as follows:

High speed Ethernet

One of the major themes for fundamental change in our industry is the continued exponential growth in network bandwidth. In particular, the transport of video across our networks has continued to create the need for faster networks. In 2015, we will see widespread deployment of 100G networks by the service providers and the trialling of 400G.

Maintaining performance at these speeds requires precise equipment and sophisticated testing techniques. Spirent will continue to invest in its core products to help its customers meet these rapidly growing bandwidth demands.

Cloud and virtualization

Many parts of the service providers' networks are being virtualized. This virtualization is causing the established ways of deployment of data technologies (through ever increasing capital investment in complex hardware) to become a commoditised market. This, in turn, means that service providers, multiple service operators and internet service suppliers are significantly reorganising their business processes and seeking new ways to provide content to subscribers, beyond traditional data networks. The virtualization of networks, also referred to as software-defined networking ("SDN") or network functions virtualization ("NFV"), is aimed at increasing the elasticity of network provisioning to provide on demand service creation through a dynamic programmable network. It is blurring the boundaries that exist in current legacy networks.

Spirent's test solutions ensure that the performance of the virtual network can be assessed, the availability of the services can be ascertained, that the provision is secure and scalability can be measured. The emerging virtual network will need to coexist with the legacy network for an extended period of time. Here Spirent enables the emulation in laboratory modelling to be taken into the live network to provide continuous assurance in the hybrid virtual/physical world.

Security

The concern over cyber security is ever present and becoming more challenging. The interconnection of devices, systems and networks that were never originally intended to be connected is creating new vulnerabilities for enterprise, government and in critical infrastructures. The constant availability of network services is the over-arching concern and cyber security threats, intrusion and denial of service attacks all impact on network availability.

In this area, Spirent's ability to provide realism in test traffic enables our customers to optimise the balance between defence and the continued service provision. Spirent has invested in the development of more realistic emulation of real-world traffic to test applications and security and will add more capabilities through 2015.

In addition, Spirent has the technology to test satellite navigation vulnerability. Not only to allow the strengthening of defences in navigation but also to test the resilience of systems that utilise satellite navigation time signals in critical systems. Security will be a major line of business for Spirent in the near future.

Mobility

Mobile communications continues to see rapid deployment of new high speed high density data communications. Existing revenue streams from telephony are altering with the deployment of digital technologies across all networks, wireline or wireless. The polarisation of the smartphone market is well documented as is the rise of new manufacturers challenging the position of newly dominant suppliers. Wireless carriers need to optimise their investment in the deployment of 4G LTE, Wi-Fi offload and small cell. They are also deploying digital voice through voice over LTE ("VoLTE"), which in turn enables the provision of rich communication services.

Interoperability challenges are now the main theme in this industry and Spirent has developed the world's first test platform to enable interoperability test on device-to-device systems and on emulated network domains. Our leading capabilities in mobile infrastructure test are facilitating the rapid deployment of 4G LTE networks which allows wireless carriers to model traffic patterns in advance of significant capital expenditure, meaning they optimise their investment and provide the best quality of service to subscribers.

Analytics

There is more data than ever being generated on the network, at the cell site and user equipment. Service providers are keen to analyse this data as it helps them improve customer retention, increase revenue and strengthen market share. Data analytics also improve information accuracy and increase operational efficiency, all of which leads to an enhanced experience for the service providers' customers.

For carriers trying to analyse customer experience across their network, disparate data silos make it hard to get a complete view. Spirent's Customer Experience Management ("CEM") solutions bring together data from different silos, helping our customers to pinpoint and resolve problems fast. Additionally, our device analytics offerings improve decision making in all areas of the operator's business, including marketing, sales, customer care, and network infrastructure, and as input for targeted campaigns.

Adjacent markets

The acquisition of key protocols and test tools and solutions have reinforced our capabilities to assure the testing of the provision of connectivity for machine-to-machine, the internet of things, indeed, the internet of everything.

Spirent has made inroads into providing new capabilities in automotive data and connected cars, again acquiring technologies during the year. These are laying the foundations for long term market expansion and diversification.

Our approach

The vision for Spirent is to be recognised as the leading expert in test methodologies for data communications. Spirent has the technical capabilities to satisfy the needs created by all of the above opportunities and is differentiated compared to other test and measurement suppliers in having such a wide portfolio of capabilities. Spirent exists to create solutions to solve customers' problems, to reduce time to market, to ensure quality of service and of experience, to create value through more efficient and effective development engineering and operations and to optimise our customers' capital expenditure and ensure their brand reputation is protected. The implementation of Agile software development, continuous integrated test optimisation and automation by our customers is transitioning Spirent's business to be consultative, to focus on the business case for the customer and to create test solutions and methodologies utilising all the capabilities across the Spirent portfolio and the integration of third party products and services. Nowhere is this more pertinent than in the move to NFV and SDN. The implementation of these technologies enables far more rapid system provisioning, to turn up new services, more effective utilisation of resources and lower costs to operators. Spirent has leading capabilities in virtual test methodologies, working closely with the innovators in this industry to develop test standards.

The dynamic nature of the markets which Spirent serves can be seen in this review. We are making investment decisions to target those areas which offer the most value to our existing and future customers. This in turn will deliver the best return on investment for the Company. Uncertainty and volatility are expected to continue through the near term followed by a renewed level of demand for services and solutions as the industry invests in the next wave of deployment.

OPERATIONAL REVIEW

Networks & Applications – 48% of Group revenue

$ million	**2014**	2013	Change (%)
Revenue	**221.5**	213.4	4
Operating profit	**5.3**	11.6	(54)
Operating profit before exceptional items	**7.6**	13.2	(42)
Return on sales before exceptional items (%)	**3.4**	6.2	

Networks & Applications develops innovative solutions for functional, performance and security testing of next-generation networks and applications that simulate real-world conditions in the lab, before a commercial launch.

Performance highlights

- Major customer reorganised slowing revenue in third quarter;
- Growth in mobility revenue;
- Built leadership in software-defined networking (“SDN”) and network functions virtualization (“NFV”);
- Success with virtual solutions.

Market conditions

The growth of video and other bandwidth-intensive services once again drove the requirement for faster networks, with 100G Ethernet deployments underway and many more expected in 2015, along with an increase in trials of 400G Ethernet. We also saw 100G Ethernet push into data centers, expanding beyond its presence in core routers.

4G LTE network rollouts and the proliferation of applications and services continued to contribute to the rapid growth in mobile data as well as in signalling traffic. As 4G LTE coverage increased, deployment of voice over LTE (“VoLTE”) and other IMS-enabled services began in earnest in North America, and are expected to continue globally into 2015 and beyond. Access networks evolved with Wi-Fi offload solutions and deployment of the latest Wi-Fi technologies.

Virtualization remained a major trend across all our markets. Service providers and their vendors continued to intensively explore how SDN and NFV can best be utilised to accelerate delivery of products and services. As a result, at least one top-tier service provider reorganised and paused its capital spending, with the associated impact on its vendors, while it undertook an organisation-wide investigation into a software-driven network based on SDN and NFV.

In the applications and security space, 2014 saw numerous high profile attacks and breaches, from large retailers to media companies and financial institutions. These showcased the intense need to prevent cyber intrusions and led to a sharp rise in spending on cyber security by enterprise, government and large service providers.

Along with the widespread adoption of Agile development processes has come the growth in "DevOps", in which development engineers and operations participate together, from design to product test and support. Spirent's ITO solutions are playing a key role in helping to automate these increasingly complex environments, reducing costs and accelerating time to market.

Revenue

Revenue in Networks & Applications grew by 4 per cent to $221.5 million from $213.4 million in 2013, with a book to bill ratio of 103 (2013: 105).

On the back of the 4G LTE and VoLTE development trends identified above, we saw an increase in revenue for our mobility solutions in 2014. There was also growth in our high speed Ethernet solutions for service providers and data centers, revenue in our application and security market was flat, while our virtual solutions grew at triple digit rates. Support services revenue was 9 per cent up compared with 2013. Our ITO & Solutions business saw strong growth from professional services and from innovative continuous integration solutions for Agile development environments. From a regional perspective, revenue was down slightly in North America and APAC and up strongly in EMEA.

Profitability

Operating profit before exceptional items was down to $7.6 million from $13.2 million in 2013. Increased investment of $13.6 million in product development, sales and marketing and support services offset gross margin from revenue growth. Gross margin increased to 68.3 per cent (2013: 68.0 per cent) of revenue. Exceptional items of $2.3 million were charged for reorganisation expenses.

Product development

Spirent continued to expand its leadership in virtual, SDN and NFV, launching first-to-market SDN capabilities for service providers on Spirent TestCenter, helping to ensure a smooth migration to SDN while achieving optimal performance. In the mobility space, we announced expanded VoLTE and IMS test capabilities and new Wi-Fi test capabilities for our Landslide solution, together with a Landslide Virtual solution.

Spirent made further contributions to advancing ultra-high bandwidth networking with the release of a new high density 100G test solution supporting the latest-generation CFP4 optical transceiver interface. We also announced new MX2 modules for 10/40G Ethernet testing with best-in-class performance and realism, enabling enhanced reliability and security testing. In Applications and Security, we launched multiple enhancements to the Avalanche solution including fuzzing, and the Avalanche NEXT solution won a 2014 Best of INTEROP award.

Spirent announced the first fully integrated test solution to support the emerging industry standard for automotive Ethernet, reflecting the evolution of in-vehicle networks to support increasingly sophisticated electronics including driver assistance technologies, infotainment systems and connected cars.

Our ITO & Solutions business announced Velocity (a 2014 Best of INTEROP award finalist), a virtual lab environment that helps validate SDN/NFV technologies and deployments, helping customers accelerate time to market and reduce the costs associated with traditional virtual and physical test beds.

Strategy

For 2015, we will focus our investments to align with the continued rapid growth in network bandwidth requirements, in the virtualization of networks and in mobile access. We will grow our leadership in virtual, SDN and NFV, addressing not only our core network equipment manufacturer and service provider customer base, but also the new opportunities presented by “white box” vendors, cloud and virtualization specialists and software vendors, and a new generation of cloud service provider.

For mobility, we will invest to address the development of software-centric evolved packet core networks and leverage our investment in VoLTE and Wi-Fi as these services roll out globally. Our applications and security test focus is on cyber security and the challenges of migrating to the cloud for enterprise, government and solution vendors, applying Spirent’s key strengths of realism and performance at scale.

As the drivers for faster networks continue to intensify, Spirent will build its leadership in 100G Ethernet networking. Spirent was the first test and measurement vendor to show a working test solution for 400G Ethernet, and we plan to continue our key role in enabling high speed Ethernet technologies and the associated industry standards. We will expand our ITO & Solutions business to address the opportunities presented by automation, DevOps, virtualization test and lab management, positioning Spirent as a trusted partner throughout our customers’ project lifecycle.

Wireless & Service Experience – 39% of Group revenue

$ million	**2014**	2013	Change (%)
Revenue	**178.6**	167.7	6
Operating profit	**23.1**	33.8	(32)
Operating profit before exceptional items	**24.0**	33.8	(29)
Return on sales before exceptional items (%)	**13.4**	20.2	

Wireless & Service Experience applies our innovation to functional and performance testing of 4G LTE mobile devices, services, satellite positioning devices and wireless infrastructure, as well as to end-to-end measurement of the mobile experience on live networks.

Performance highlights

- Government spending restrictions limit Positioning growth;
- China 4G LTE ecosystem drives Wireless business;
- VoLTE and RCS test leadership for Wireless and Service Experience.

Market conditions

In our Wireless & Service Experience markets, the economic pressure on top-tier global smartphone vendors continued into 2014, a year characterised by local smartphone vendors' market share gains in key growth markets such as China and India. However, Spirent benefitted from the development phase of important 4G LTE services and the focus on user experience of those services, especially VoLTE and other IMS-enabled services such as Rich Communication Suite ("RCS"). 2014 saw the first large-scale VoLTE and RCS rollouts in North America, with global deployments following in 2015 and beyond as LTE coverage becomes ubiquitous.

Enhancements to 4G technology ("LTE-Advanced") such as carrier aggregation were also widely deployed to improve performance, spectrum utilisation and coverage. 4G network build-outs continued apace in China and impressive subscriber growth followed, with China Mobile claiming more than 90 million 4G subscribers by the end of the year. The importance of wireless machine-to-machine ("M2M") connectivity continued to rise as the Internet of Things became a reality and began to change the way in which people live, from smart homes to connected vehicles.

In our Positioning markets, applications grew for multi-GNSS technologies, such as BeiDou with GPS and GLONASS, and were a significant driver for both government and commercial customers including the emerging "wearable" technology sector. The growing concern over the vulnerability of

GNSS receivers to interference, including jamming and spoofing (attempting to deceive a GNSS receiver by broadcasting counterfeit GNSS signals), is becoming an important market driver.

Revenue

Wireless experienced modest growth in its mobile device test markets as a result of strength in 4G carrier ecosystems in China and continued worldwide investment in 4G LTE technologies and services, especially in VoLTE. Service Experience also grew, primarily in North America, as a result of expanding its portfolio to include more services for device vendors. Positioning also saw modest growth year-on-year, with a strong performance in commercial markets due to the launch of innovative new solutions that took market share being offset by government spending restrictions in some regions. The former Radvision Technology Business Unit ("TBU") acquired by Spirent in July contributed $4.2 million in revenue and Testing Technologies IST GmbH $2.3 million. Overall revenue was up by $10.9 million to $178.6 million from $167.7 million in 2013 giving an organic revenue growth rate of 3 per cent for this division. Book to bill ratio grew to 102 from 101 at the end of 2013.

Profitability

Operating profit before exceptional items was $24.0 million compared with $33.8 million in 2013, as high gross margin on the increased revenue was more than offset by the increase in investment in product development, sales and marketing and support services of $9.4 million. Gross margin was 68.0 per cent compared with 69.4 per cent in 2013 due to product mix. The resulting return on sales reduced to 13.4 per cent compared with 20.2 per cent in 2013. Exceptional reorganisation costs of $0.9 million were charged in 2014.

Product development

Our Wireless & Service Experience business invested to address the industry's needs, against a background of large scale deployment of 4G LTE-enabled services and the continued surge in smartphones and M2M devices. With the deployment of services such as VoLTE and RCS, legacy test solutions are no longer able to support the associated increases in complexity, interoperability challenges and time to market requirements. To address this evolving need, in September Spirent announced its Elevate Test Framework, a powerful network of resources designed to address the wireless industry's increasingly complex testing challenges and scale demands. Elevate's unique open test architecture disrupts the status quo in test and measurement, with its ability to evaluate device, service and user experience performance in the lab earlier in the development lifecycle and generate meaningful analytics that can be shared across global development teams. Elevate also incorporates the ProLab test suite, an asset acquired with Radvision's TBU. ProLab is a widely accepted solution in the industry which leverages the Radvision TBU team's expertise in voice and video over IP, including VoLTE.

We launched an Acoustic Verification System, the industry's first bench-top system that enables operators to incorporate sophisticated acoustic speech analysis into their forward and reverse device logistics processes, driving substantial cost savings and an improved user experience. The business also launched Quantum, an automated system for measuring and driving improvements in the battery life of mobile devices under typical consumer use cases, as well as a new IP Analytics capability for improving the user experience of VoLTE and other IP-based services. Our Positioning business significantly extended its industry leadership with the launch of the GSS9000, a high-end multi-GNSS solution which offers unrivalled performance, flexibility and cost-effectiveness.

Strategy

The strategy for Wireless & Service Experience centres around radically reducing time to market for new devices and services for its global customers and ecosystems while helping to ensure the highest quality and user experience. Spirent Elevate, the unique toolsets from Spirent's Developer Tools (formerly Radvision TBU) business, and recent additions to its powerful portfolio of GNSS platforms are all examples of Spirent's capability to help its customers reduce time to market for their products and services.

Spirent is building leadership in testing the user experience of converged services and the devices that support them, including video, data and voice (such as VoLTE and Voice over Wi-Fi) across the entire lifecycle, from development to initial deployment to issues that arise over the lifetime, including device returns. The addition of powerful analytic capabilities enabling customers to gain new insights into test data and correlate user experience metrics with IP-layer performance metrics accelerate the resolution of issues and improve the user experience.

Service Assurance – 13% of Group revenue

$ million	**2014**	2013	Change (%)
Revenue	**57.1**	32.4	76
Operating profit	**20.5**	9.0	128
Operating profit before exceptional items	**20.7**	9.0	130
Return on sales before exceptional items (%)	**36.3**	27.8	

Service Assurance enables service providers to diagnose, troubleshoot and reduce time to resolve issues with production networks and services and continuously monitor production network performance and end user experience through end-to-end visibility and real-time automation.

Performance highlights

- Revenue up significantly on field test strength;
- Ethernet sales maintained but virtualization causes spending caution;
- Second phase of large field test project received for delivery in the second half of 2015.

Market conditions

Overall service provider spend remained cautious. With investment in legacy now almost at a standstill, major carriers shifted their focus to research and evaluation of virtualization and how best to evolve their networks to incorporate its benefits. These trends resulted in a pause in investment in traditional probes by some key customers and early stage growth in demand for virtualized solutions. The rapid growth of video services and mobile subscriber data led to the need for more Ethernet “pipes” in backbone networks, increasing pressure to move to higher Ethernet speeds and better data analytics.

Continued growth in the complexity of networks and services, coupled with intense competition between service providers and the fear of customer churn, has led to greater emphasis on customer experience management and on the value of big data analytics. It has also driven demand for powerful yet easy-to-use tools that technicians can employ to help manage the increasingly-complex end point of the network: the customer’s home. Mobile operators struggle to keep abreast of the capabilities and technical requirements of the ever-expanding pool of new devices and OS versions coming onto their networks. To maintain a consistent, cost-efficient service and maximise their top line, they are moving beyond device management to obtain intelligence on the limitations and potential of every device on their network. Spirent acquired Mobilethink in September 2014 to enable it to address this trend.

Revenue

Overall revenue was up strongly by $24.7 million to $57.1 million in 2014, compared with $32.4 million in 2013. $12.6 million of this growth was organic, while the Customer Experience Management ("CEM") business, acquired from DAX Technologies in February, contributed $10.1 million growing its business at a major US service provider. The Device Intelligence business, acquired as Mobilethink in September, contributed $2.0 million in revenue in 2014. For our core Service Assurance business, field test revenue was particularly strong as we delivered a large 2013 order to a major North American service provider for a new version of our Tech-X Flex product. A second, larger order was placed in December by the same customer for delivery in the second half of 2015. The book to bill was 104 due to the large field test order and CEM projects awaiting completion.

Profitability

Adjusted operating profit was $20.7 million compared with $9.0 million in 2013 as a result of the significantly increased revenue. Gross margin was 76.2 per cent compared with 77.8 per cent in 2013. The resulting return on sales increased to 36.3 per cent compared with 27.8 per cent in 2013.

Product development

We shipped a new version of our Tech-X Flex field test product that supports the latest generation of Wi-Fi technology (802.11ac) and in-home networking standard (MoCA 2.0), and incorporates new network data performance test methodologies. Current development work on field test solutions is focused on incorporating additional test methodologies and further improving ease of use, enabling use by technicians of all skill levels.

In response to the increasingly important role played by SDN and NFV in cable and telecom operator networks, Spirent also announced Spirent TestCenter Live Virtual Probe which is, as the name suggests, a virtualised distributed Ethernet probe. In conjunction with the Spirent TestCenter Live Ethernet services platform, it allows operators to extend performance management to all points of their network, as well as to respond to the rapidly changing demands of new virtual environments and today's fast-paced network operations conditions. Our CEM business released new capability for LTE.

Strategy

The complexity of today's networks and services and fierce competitive environment result in the need for service providers to assure the user experience of services end-to-end. Spirent aims to enable its customers to radically reduce time to resolve user experience degradation through end-to-end visibility and real-time automation and response. It will accomplish this by combining the Ethernet and in-home service assurance assets from Spirent's core Service Assurance business with the analytics and customer experience management systems from the DAX Technologies acquisition and the device intelligence capabilities from the Mobilethink acquisition. As a result, Spirent will be able to assure networks and services at all layers of the protocol stack and to employ its analytics and customer experience management expertise to find and resolve user experience issues more quickly and efficiently.

Spirent's device intelligence and new predictive capabilities within its customer experience management systems will enable service providers to identify issues before subscribers are even aware of them, helping to maximise service revenues and minimise subscriber churn. Spirent enables its customers to get the turn-up of new services right first time, ensuring that they work at the bearer and transport layers and also at the increasingly complex end point of the network, the subscriber's home, through Spirent's unique field test offerings.

We will also expand the scalability and cost-effectiveness of the solutions offered by our CEM business, expanding its analytics capabilities to applications across the Spirent portfolio. This will enable customers to correlate user experience metrics with IP-layer performance metrics to accelerate the resolution of issues and improve the user experience.

Group financial performance

The following table shows the key financial performance indicators monitored by the Board in order to measure the performance of the Group:

	2014	2013	Change (%)
Book to bill ratio[1]	**103**	105	
Revenue ($ million)	**457.2**	413.5	11
Gross profit margin (%)	**69.2**	69.4	
Adjusted operating profit[2] ($ million)	**46.0**	50.1	(8)
Return on sales[2] (%)	**10.1**	12.1	
Adjusted basic earnings per share[3] (cents)	**5.82**	5.71	2
Free cash flow[4] ($ million)	**10.7**	43.9	(76)

Notes
1 Ratio of orders booked to revenue billed.
2 Before exceptional items, acquisition related costs, acquired intangible asset amortisation and impairment and share-based payment.
3 Adjusted basic earnings per share is based on adjusted earnings as set out in note 7 of Notes to the preliminary consolidated financial statements.
4 Operating cash flow after tax, net interest and net capital expenditure.

Revenue

Group revenue increased by 11 per cent compared to the prior year to $457.2 million (2013: $413.5 million). The Group’s 2014 acquisitions contributed revenue of $18.6 million during the year and excluding this effect the organic increase in revenue was 6 per cent. Trading improved towards the end of the year in all divisions, after a slow third quarter, as customers released capital budgets and some of the new product launches gained traction. The structural changes in Spirent’s markets and the consequential caution some of our customers are understandably exhibiting in their investment plans have delayed revenue growth in 2014. However, Spirent’s 2014 investments were focused on building on the many opportunities that exist in our markets. Spirent had some major successes in 2014 and market conditions and performance in each of Spirent’s divisions are discussed in the operational review.

Excluding the effect of acquisitions order intake grew by 3 per cent compared with 2013 and the book to bill ratio was above 100, at 103 (2013: 105). Both orders and revenue grew organically in all divisions. In Service Assurance revenue of $12.0 million was recognised in the first half from a large field test order received in 2013 and a follow on order for $16.2 million was booked in the fourth quarter of 2014 for delivery in the second half of 2015.

Geographically, the United States is our largest market accounting for 51 per cent of Group revenue. Revenue increased by 8 per cent period-on-period in this region. Asia Pacific amounts to 31 per cent of Group revenue and increased by 8 per cent over 2013 primarily due to strong activity in

China driven by the China carrier ecosystem. Europe represents 14 per cent of Group revenue and was 29 per cent up as we saw recovery after a difficult 2013. The rest of the world represents the remaining 4 per cent.

$ million	**2014**	**%**	2013	%
United States	**233.2**	**51**	215.8	52
Asia Pacific, Rest of World	**158.7**	**35**	146.9	36
Europe	**65.3**	**14**	50.8	12
	457.2	**100**	413.5	100

Operating profit

Reported operating profit was $23.7 million compared with $39.1 million in 2013. Operating profit before exceptional items, acquisition related costs, acquired intangible asset amortisation and impairment and share-based payment ("adjusted operating profit"), which is the measure of profit the Group uses to evaluate performance, decreased by 8 per cent to $46.0 million compared with $50.1 million in 2013 primarily as a result of the planned increase in product development, sales and marketing and support services of $24.4 million to drive future growth.

A reconciliation is set out below:

$ million	**2014**	2013
Adjusted operating profit	**46.0**	50.1
Exceptional items:		
Reorganisation expenses in response to market changes	**(4.1)**	-
Review of Group's organisational structure	**-**	(3.4)
Abortive acquisition costs	**-**	(0.4)
Acquisition related costs	**(3.8)**	-
Acquired intangible asset amortisation and impairment	**(13.7)**	(8.4)
Share-based payment	**(0.7)**	1.2
Reported operating profit	**23.7**	39.1

Return on sales, based on adjusted operating profit was 10.1 per cent (2013: 12.1 per cent).

Cost of sales and operating expenses

Gross margin reduced slightly to 69.2 per cent (2013: 69.4 per cent) due to product mix and the increased investment in support services.

In the 2013 Annual Report Spirent announced that it would make an additional investment of around $33 million in product development, sales and marketing and support services for future growth. The actual amount invested was an additional $24.4 million excluding acquisitions or 5 per cent of revenue: $3.2 million for support services (included in cost of sales); $8.3 million for product development; and $12.9 million for sales and marketing. Our investment was mainly in our core markets focusing on virtual test solutions and cyber security and also to fund new initiatives such as automotive.

Administration expenses were $41.4 million in 2014 compared with $39.6 million in 2013 before charging the following items (which are added back for the purposes of the calculation of adjusted operating profit):

- exceptional items of $4.1 million (2013: $3.8 million);
- acquired intangible asset amortisation and impairment of $13.7 million (2013: $8.4 million) which reflects a pro-rata amortisation charge for the 2014 acquisitions;
- acquisition related costs of $3.8 million (2013: nil); and
- a share-based payment charge of $0.7 million (2013: credit of $1.2 million).

Total reported administration expenses were $63.7 million compared with $50.6 million after charging the items above.

The 2014 acquisitions have added a total of $12.9 million to reported operating expenses in the year.

It is planned to maintain the underlying rate of investment in product development in 2015 and to increase the investment in sales and marketing by approximately $7 million. This will support new product releases, build on the global opportunities provided by the 2014 acquisitions and enable us to implement a new customer relationship management software platform to enhance operational effectiveness.

Exceptional items and goodwill impairment

In 2014, following dynamic changes in Spirent's markets and the need to ensure that the Group is investing in the right areas to maximise its potential, Spirent undertook a series of steps to reallocate resources in its worldwide operations at a cost of $4.1 million. The annualised cost savings from these actions is $12 million of which we have reinvested $5 million giving a net saving of $7 million.

In 2013 the Group undertook a review of its organisational structure on the appointment of a new Chief Executive Officer at an exceptional cost of $3.4 million and also incurred abortive acquisition costs of $0.4 million.

In 2014 an intangible asset impairment charge of $1.0 million has been incurred in respect of the development asset arising on the acquisition of NetGend. The asset had been acquired at a pre-production stage and, although the intention is to use this technology to enhance Spirent's solutions, the extent and the means by which this will be achieved had not been determined at 31 December 2014, resulting in an impairment charge.

Corporate costs

Corporate costs are those expenses which cannot be attributed to the Group's operating segments and comprise the costs of the Board and other corporate activities. These costs were $6.3 million (2013: $5.9 million) before exceptional items of $0.7 million (2013: $2.2 million) for the year.

Currency impact

The effect of fluctuating exchange rates is relatively minimal as the Group's revenue and profits are primarily denominated in US dollars or US dollar-linked currencies.

Finance income and costs

Finance income for 2014 was $0.4 million compared with $0.9 million in 2013. Surplus funds are held principally in the United Kingdom and United States and earn market rates of interest which remain negligible.

Finance costs were nil in 2014. They were $0.9 million in 2013, which was the defined benefit pension plan interest cost.

Tax

Taxable profits for the Group principally arise in the United States. The tax charge for the Group in 2014 was $3.5 million (2013: $6.4 million), representing a current year effective tax rate of 22.0 per cent (2013: 25.8 per cent) of pre-tax profit, excluding a prior year tax credit of $1.8 million (2013: $3.7 million). The effective tax rate is lower in 2014 as a result of the geographic mix of taxable profits as well as the effect of Research and Experimental tax credits in the United States. At 31 December 2014 deferred tax assets amounting to $20.5 million (31 December 2013: $18.3 million) have been recognised on the balance sheet. At 31 December 2014 there are deferred tax assets amounting to a tax value of $17.1 million (31 December 2013: $17.7 million) which remain unrecognised.

For 2015 it is expected that the effective tax rate will be in the region of 25 per cent.

Earnings per share

Adjusted basic earnings per share was 5.82 cents compared with 5.71 cents for 2013. There were 611.2 million (2013: 640.6 million) weighted average Ordinary Shares in issue. Basic earnings per share was 3.35 cents for 2014 compared with 5.10 cents for 2013.

A reconciliation is provided below:

$ million	**2014**	2013
Profit for the year attributable to owners of the parent Company	**20.5**	32.7
Exceptional items	**4.1**	3.8
Acquisition related costs	**3.8**	-
Acquired intangible asset amortisation and impairment	**13.7**	8.4
Share-based payment	**0.7**	(1.2)
Tax effect on the above items	**(5.4)**	(3.4)
Prior year tax credit	**(1.8)**	(3.7)
Adjusted profit for the year attributable to owners of the parent Company	**35.6**	36.6
Adjusted basic earnings per share	**5.82**	5.71

Acquisitions

The following acquisitions were completed in 2014:

- The business of DAX Technologies Corp. ("DAX") for a cash consideration of $36.9 million which completed on 19 February 2014. DAX is a leading provider of customer experience management solutions and is reported within the Service Assurance division.
- A majority stake of 58 per cent in Testing Technologies IST GmbH ("Testing Tech") for a cash consideration of Euro 1.8 million ($2.4 million) on 20 February 2014. The company develops and markets standardised and customer-specific software-based testing tools which support the development of mission-critical products and workflow steps. Testing Tech also participates in the connected vehicle market which will facilitate Spirent's progress in this market. The minority stake of 42 per cent of the share capital is the subject of a put and call option which is exercisable between 1 January and 31 March 2016. The consideration is based on the 2015 performance of Testing Tech and set at a minimum amount of Euro 1.4

million, the option has been assigned a fair value of Euro 2.2 million ($2.7 million). This acquisition is reported within the Wireless & Service Experience division.

- On 31 July 2014 Spirent completed the acquisition of the assets of Radvision's Technology Business Unit ("TBU"), the part of the Radvision business responsible for delivering industry-leading developer solutions, for a cash consideration of $25.9 million. The business unit is based in Tel Aviv, Israel, and offers a complete development and test suite for Voice and Video over IP communications, including VoLTE. This acquisition is reported within the Wireless & Service Experience division.
- On 12 September 2014 Spirent acquired Mobilethink A/S ("Mobilethink") and its wholly owned subsidiary, Tweakker ApS ("Tweakker") for a cash consideration of $20.1 million. Headquartered in Aarhus, Denmark, Mobilethink is a provider of mobile device management, device analytics and intelligence solutions for mobile operators. This acquisition is reported within the Service Assurance division.

In addition, Spirent acquired the net assets of NetGend LLC in September, a Texas based entity for a cost of $1.0 million.

Acquisition expenses of $3.8 million, which have been expensed, were incurred in relation to these transactions.

Financing and cash flow

The Group remains cash generative, and this gives Spirent the financial flexibility to invest in organic growth, pursue strategic acquisitions and pay sustainable, progressive dividends to shareholders.

Cash and cash equivalents were $99.8 million at 31 December 2014 compared with $216.2 million at 31 December 2013 with no debt. Cash and cash equivalents are held as cash on demand or in short term bank deposits and 57 per cent of the balance was denominated in US dollars.

Cash generated from operating activities was lower in 2014 at $48.9 million (2013: $73.5 million) as activity was skewed to the end of the fourth quarter resulting in an increase in working capital of $6.7 million for the year (2013: reduction of $12.1 million). This working capital increase is expected to unwind during the first quarter of 2015. Free cash flow conversion represents 0.5 times (2013: 1.3 times) reported earnings.

Free cash flow is set out below:

$ million	2014	2013
Cash flow from operations	**48.9**	73.5
Tax paid	**(7.2)**	(6.1)
Cash inflow from operating activities	**41.7**	67.4
Interest received	**0.6**	0.8
Net capital expenditure	**(31.6)**	(24.3)
Free cash flow	**10.7**	43.9

Net capital expenditure was higher by $7.3 million than in 2013. This increase was due to the move to new improved leasehold facilities in the United States on the expiry of the previous lease terms at a cost of $9.5 million. For 2015 capital expenditure is expected to be in the region of $20 million.

The cash generated has been utilised to pay dividends to shareholders and for the return of capital through the share buyback programme. In 2014 a final dividend for 2013 and an interim dividend for 2014 totalling $22.2 million (2013: $22.2 million) were paid. Share repurchases during the early part of 2014 have resulted in a cash outflow of $16.4 million (2013: $54.7 million). Cash consideration for acquisitions amounted to $85.9 million.

Defined benefit pension plans

The Group operates two funded defined benefit pension plans which are in the United Kingdom. Both of these schemes were closed some time ago to new entrants and the main plan now has fewer than ten active members.

The accounting valuation of these plans at the end of 2014 was a net deficit of $13.7 million compared with a net deficit of $2.5 million at 31 December 2013 and was based on the latest triennial actuarial valuation at 1 April 2012. The increase in the deficit is mainly a result of changes in the underlying assumptions, principally the discount rate, net of a rise in the value of the assets.

The Group has also reported a liability of $0.8 million (31 December 2013: $0.8 million) in respect of United Kingdom unfunded plan liabilities.

Capital structure

Spirent's policy on capital structure is to maintain a strong balance sheet to support operational flexibility and fund investment for long term growth.

In 2014 the Company repurchased 9.7 million Ordinary Shares at a cost of $15.6 million (2013: 29.2 million at a cost of $55.5 million). All shares repurchased were cancelled. No further buybacks are currently planned.

Dividend

The Board is recommending the payment of a final dividend for 2014 of 2.21 cents (1.43 pence) per Ordinary Share which, with the interim dividend of 1.68 cents (0.99 pence) per Ordinary Share paid in September 2014, brings the full year dividend to 3.89 cents (2.42 pence) per Ordinary Share. The dividend is covered 1.5 times by adjusted earnings. This is an increase of 10 per cent over the full year dividend for 2013 of 3.54 cents per Ordinary Share.

Subject to approval by the shareholders at the Annual General Meeting, the final dividend will be paid on 8 May 2015 to Ordinary shareholders on the register at 6 March 2015. Payment to ADR holders will be made on 18 May 2015.

Principal risks and uncertainties

Principal risks and uncertainties affecting the Spirent Communications Group will be detailed within the Annual Report for the year ended 31 December 2014, a copy of which will be made available on the Company's website at http://corporate.spirent.com/.

Consolidated income statement

$ million	Notes	Year to 31 December 2014	2013
Continuing operations			
Revenue	3, 4	**457.2**	413.5
Cost of sales		**(140.9)**	(126.7)
Gross profit		**316.3**	286.8
Product development	3	**(115.4)**	(100.5)
Selling and distribution		**(113.5)**	(96.6)
Administration		**(63.7)**	(50.6)
Operating profit	3	**23.7**	39.1
Finance income		**0.4**	0.9
Finance costs		**-**	(0.9)
Profit before tax	3	**24.1**	39.1
Tax	6	**(3.5)**	(6.4)
Profit for the year		**20.6**	32.7
Attributable to:			
Owners of the parent Company		**20.5**	32.7
Non-controlling interest		**0.1**	-
Profit for the year		**20.6**	32.7
Earnings per share (cents)	7		
Basic		**3.35**	5.10
Diluted		**3.35**	5.09

Consolidated statement of comprehensive income

$ million	Year to 31 December **2014**	2013
Profit for the year	**20.6**	32.7
Other comprehensive income		
Items that may subsequently be reclassified to profit or loss:		
Exchange differences on retranslation of foreign operations	**(4.2)**	(0.7)
Items that will not subsequently be reclassified to profit or loss:		
Re-measurement of the net defined benefit pension liability	**(16.0)**	17.8
Income tax effect	**3.3**	(4.2)
	(12.7)	13.6
Other comprehensive income	**(16.9)**	12.9
Total comprehensive income for the year	**3.7**	45.6
Attributable to:		
Owners of the parent Company	**3.6**	45.6
Non-controlling interest	**0.1**	-
Total comprehensive income for the year	**3.7**	45.6

Consolidated balance sheet

	At 31 December	
$ million	**2014**	2013
Assets		
Non-current assets		
Intangible assets	**273.3**	198.8
Property, plant and equipment	**52.2**	39.6
Trade and other receivables	**4.2**	4.4
Cash on deposit	**-**	0.1
Defined benefit pension plan surplus	**0.8**	0.6
Deferred tax asset	**20.5**	18.3
	351.0	261.8
Current assets		
Inventories	**26.5**	31.6
Trade and other receivables	**122.9**	102.7
Current tax asset	**6.7**	-
Cash and cash equivalents	**99.8**	216.2
	255.9	350.5
Total assets	**606.9**	612.3
Liabilities		
Current liabilities		
Trade and other payables	**(127.2)**	(130.7)
Current tax liability	**(3.9)**	(3.6)
Provisions and other liabilities	**(6.7)**	(6.0)
	(137.8)	(140.3)
Non-current liabilities		
Trade and other payables	**(12.6)**	(15.2)
Other financial liabilities	**(2.7)**	-
Defined benefit pension plan deficit	**(15.3)**	(3.9)
Deferred tax liability	**(2.5)**	-
Provisions and other liabilities	**(1.6)**	(0.5)
	(34.7)	(19.6)
Total liabilities	**(172.5)**	(159.9)
Net assets	**434.4**	452.4
Capital and reserves		
Share capital	**31.8**	34.4
Share premium account	**31.5**	33.5
Capital redemption reserve	**20.6**	21.3
Other reserves	**2.1**	(3.2)
Translation reserve	**19.1**	23.3
Retained earnings	**329.2**	343.1
Total equity attributable to owners of the parent Company	**434.3**	452.4
Non-controlling interest	**0.1**	-
Total equity	**434.4**	452.4

Consolidated cash flow statement

$ million	Notes	Year to 31 December **2014**	2013
Cash flows from operating activities			
Cash flow from operations	9	**48.9**	73.5
Tax paid		**(7.2)**	(6.1)
Net cash inflow from operating activities		**41.7**	67.4
Cash flows from investing activities			
Interest received		**0.6**	0.8
Transfer from long term deposit		**0.1**	0.3
Purchase of intangible assets		**(0.6)**	(2.4)
Purchase of property, plant and equipment		**(32.2)**	(22.9)
Proceeds from the sale of property, plant and equipment		**1.2**	1.0
Acquisition of subsidiaries and businesses net of cash acquired	10	**(85.9)**	-
Net cash used in investing activities		**(116.8)**	(23.2)
Cash flows from financing activities			
Dividend paid		**(22.2)**	(22.2)
Proceeds from the issue of share capital and employee share ownership trust		**-**	0.2
Share repurchase		**(16.4)**	(54.7)
Loan repayment		**(0.1)**	-
Net cash used in financing activities		**(38.7)**	(76.7)
Net decrease in cash and cash equivalents		**(113.8)**	(32.5)
Cash and cash equivalents at the beginning of the year		**216.2**	248.6
Effect of foreign exchange rate changes		**(2.6)**	0.1
Cash and cash equivalents at the end of the year		**99.8**	216.2

Consolidated statement of changes in equity

$ million	Share capital	Share premium account	Capital redemption reserve	Other reserves	Translation reserve	Retained earnings	Total	Non-controlling interests	Total equity
	Attributable to owners of the parent Company								
At 1 January 2013	35.3	32.9	19.4	(1.6)	24.0	385.6	495.6	-	495.6
Profit for the year	-	-	-	-	-	32.7	32.7	-	32.7
Other comprehensive income	-	-	-	-	(0.7)	13.6	12.9	-	12.9
Total comprehensive income	-	-	-	-	(0.7)	46.3	45.6	-	45.6
Share-based payment	-	-	-	-	-	(1.2)	(1.2)	-	(1.2)
Employee share ownership trust	-	-	-	-	-	0.2	0.2	-	0.2
Share cancellation	(1.5)	-	1.5	-	-	-	-	-	-
Share repurchase	-	-	-	-	-	(55.5)	(55.5)	-	(55.5)
Share buyback obligation	-	-	-	-	-	(10.1)	(10.1)	-	(10.1)
Equity dividends	-	-	-	-	-	(22.2)	(22.2)	-	(22.2)
Exchange adjustment	0.6	0.6	0.4	(1.6)	-	-	-	-	-
At 1 January 2014	**34.4**	**33.5**	**21.3**	**(3.2)**	**23.3**	**343.1**	**452.4**	**-**	**452.4**
Profit for the year	**-**	**-**	**-**	**-**	**-**	**20.5**	**20.5**	**0.1**	**20.6**
Other comprehensive income	**-**	**-**	**-**	**-**	**(4.2)**	**(12.7)**	**(16.9)**	**-**	**(16.9)**
Total comprehensive income	**-**	**-**	**-**	**-**	**(4.2)**	**7.8**	**3.6**	**0.1**	**3.7**
Share-based payment	**-**	**-**	**-**	**-**	**-**	**0.7**	**0.7**	**-**	**0.7**
Tax charge on share incentives	**-**	**-**	**-**	**-**	**-**	**(0.1)**	**(0.1)**	**-**	**(0.1)**
Share cancellation	**(0.5)**	**-**	**0.5**	**-**	**-**	**-**	**-**	**-**	**-**
Share repurchase	**-**	**-**	**-**	**-**	**-**	**(15.6)**	**(15.6)**	**-**	**(15.6)**
Share buyback obligation	**-**	**-**	**-**	**-**	**-**	**18.2**	**18.2**	**-**	**18.2**
Equity dividends	**-**	**-**	**-**	**-**	**-**	**(22.2)**	**(22.2)**	**-**	**(22.2)**
Other movements	**-**	**-**	**-**	**-**	**-**	**(2.7)**	**(2.7)**	**-**	**(2.7)**
Exchange adjustment	**(2.1)**	**(2.0)**	**(1.2)**	**5.3**	**-**	**-**	**-**	**-**	**-**
At 31 December 2014	**31.8**	**31.5**	**20.6**	**2.1**	**19.1**	**329.2**	**434.3**	**0.1**	**434.4**

Notes to the preliminary consolidated financial statements

1 Financial information presented

The financial information contained in this document does not constitute the Group's statutory accounts for the year ended 31 December 2014.

As required by the European Union's IAS Regulation and the Companies Act 2006 the Group has prepared its consolidated financial statements for the year to 31 December 2014 in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union and issued by the International Accounting Standards Board. The comparative financial information is based on the statutory accounts to 31 December 2013 which have been delivered to the Registrar of Companies. The report of the auditors on those accounts was unqualified, did not draw attention to any matters by way of emphasis and did not contain a statement made under Section 498 of the Companies Act 2006.

The preliminary announcement was approved by the Board of Directors on 26 February 2015.

The financial information for the year to 31 December 2014 has been extracted from the statutory accounts on which an unqualified audit report, which did not contain a statement under Section 498 of the Companies Act 2006, has been issued. These accounts are yet to be delivered to the Registrar of Companies.

2 Accounting policies

The accounting policies adopted are consistent with those applied in the consolidated financial statements for the year ended 31 December 2013.

Adoption of new and current standards
The following new standards, amendments to standards and interpretations are mandatory for the first time in the current financial year and have been adopted by the Group with no significant impact on its consolidated results or financial position.

International Accounting Standards ("IAS/IFRS")

IFRS 10	Consolidated Financial Statements
IFRS 11	Joint Arrangements
IFRS 12	Disclosure of Interests in Other Entities
IAS 32	Amendments to IAS 32 – Offsetting Financial Assets and Financial Liabilities
IAS 39 and IFRS 9	Amendments to IAS 39 and IFRS 9 – Novation of Derivatives and Continuation of Hedge Accounting
IFRIC 21	Levies

Going concern
At 31 December 2014 the Group had cash balances of $99.8 million and no debt.

The directors have reviewed the detailed financial projections for a period of 12 months from the date of this report and the business plans for the 2016 and 2017 financial years. They have also considered the principal risks and uncertainties that the Group face and its current financial position and are satisfied that the Group has adequate financial resources to continue in operational existence for the foreseeable future, a period of not less than 12 months from the date of this report. Accordingly, the going concern basis continues to be used in the preparation of the financial statements.

3 Operating segments

The Group's organisational structure is based on differences in the products and services offered by each segment and information regularly reviewed by the Group's Chief Executive Officer, its Chief Operating Decision Maker, is presented on this basis. The Group's operating segments follow this structure.

The Group's reportable operating segments are Networks & Applications, Wireless & Service Experience and Service Assurance. The Group evaluates segment operating profit before exceptional items, acquisition related costs, acquired intangible asset amortisation and impairment and share-based payment. Finance income and finance costs are not allocated to the reportable segments. Corporate is not an operating segment and costs are separately reported and not allocated to the reportable segments.

$ million	Networks & Applications	Wireless & Service Experience	Service Assurance	Corporate	Total
2014					
Revenue					
External revenue	**221.5**	**178.6**	**57.1**	**-**	**457.2**
Profit before tax					
Total reportable segment profit/(loss) before exceptional items	**7.6**	**24.0**	**20.7**	**(6.3)**	**46.0**
Exceptional items *note 5*	**(2.3)**	**(0.9)**	**(0.2)**	**(0.7)**	**(4.1)**
Total reportable segment profit/(loss)	**5.3**	**23.1**	**20.5**	**(7.0)**	**41.9**
Acquisition related costs					**(3.8)**
Acquired intangible asset amortisation					**(12.7)**
Impairment of acquired intangible assets					**(1.0)**
Share-based payment					**(0.7)**
Operating profit					**23.7**
Finance income					**0.4**
Profit before tax					**24.1**
Other information					
Product development	**59.7**	**43.2**	**12.5**	**-**	**115.4**
Intangible asset additions	**1.0**	**30.1**	**61.5**	**-**	**92.6**
Property, plant and equipment additions	**16.9**	**12.6**	**4.2**	**0.1**	**33.8**
Intangible asset amortisation – other	**-**	**1.3**	**-**	**-**	**1.3**
Depreciation	**9.7**	**8.9**	**0.9**	**0.2**	**19.7**

3 Operating segments continued

$ million	Networks & Applications	Wireless & Service Experience	Service Assurance	Corporate	Total
2013					
Revenue					
External revenue	213.4	167.7	32.4	-	413.5
Profit before tax					
Total reportable segment profit/(loss) before exceptional items	13.2	33.8	9.0	(5.9)	50.1
Exceptional items *note 5*	(1.6)	-	-	(2.2)	(3.8)
Total reportable segment profit/(loss)	11.6	33.8	9.0	(8.1)	46.3
Acquired intangible asset amortisation					(8.4)
Share-based payment					1.2
Operating profit					39.1
Finance income					0.9
Finance costs					(0.9)
Profit before tax					39.1
Other information					
Product development	55.1	37.6	7.8	-	100.5
Intangible asset additions	-	2.4	-	-	2.4
Property, plant and equipment additions	10.7	11.2	1.0	-	22.9
Intangible asset amortisation – other	-	1.5	-	-	1.5
Depreciation	8.7	6.6	1.0	0.2	16.5

There was no inter-segment revenue in any of the above periods.

4 Geographical information

$ million	**2014**	2013
Revenue by market		
United States	**233.2**	215.8
Asia Pacific, Rest of World	**158.7**	146.9
Europe	**65.3**	50.8
	457.2	413.5

Europe includes United Kingdom revenue of $11.6 million (2013: $9.8 million).

Revenues are attributed to countries based on customer location.

5 Exceptional items

$ million	**2014**	2013
Reorganisation expenses in response to market changes	**4.1**	-
Review of Group's organisational structure	**-**	3.4
Abortive acquisition costs	**-**	0.4
	4.1	3.8

In 2014, following dynamic changes in Spirent's markets and the need to ensure the Group was investing in the right areas to maximise its potential, Spirent undertook a series of steps to reallocate resources in its worldwide operations. In 2013, on the appointment of the new CEO, the Group undertook a review of its operational structure in order to deliver a streamlined, decentralised and more simplified business.

The tax effect of exceptional items is a credit of $1.2 million (2013: $0.8 million).

6 Tax

$ million	**2014**	2013
Current income tax		
UK tax	**0.1**	-
Foreign tax	**3.8**	5.1
Amounts overprovided in previous years	**(1.4)**	(3.7)
Total current income tax charge	**2.5**	1.4
Deferred tax		
Recognition of deferred tax assets	**(0.6)**	-
Reversal of temporary differences	**2.0**	5.0
Adjustments in respect of prior years	**(0.4)**	-
Total deferred tax charge	**1.0**	5.0
Tax charge in the income statement	**3.5**	6.4

The effective tax rate for 2014 is 22.0 per cent (2013: 25.8 per cent), being the current year tax charge excluding prior year tax, as a percentage of profit before tax.

7 Earnings per share

Basic
Basic earnings per share is calculated by dividing the profit for the year attributable to owners of the parent Company by the weighted average number of Ordinary Shares outstanding during the year.

Diluted
Diluted earnings per share is calculated by dividing the profit for the year attributable to owners of the parent Company by the weighted average number of Ordinary Shares outstanding during the year plus the weighted average number of Ordinary Shares that would be issued on the conversion of all dilutive potential Ordinary Shares into Ordinary Shares.

$ million	**2014**	2013
Profit for the year attributable to owners of the parent Company	**20.5**	32.7

Number million		
Weighted average number of shares in issue – basic	**611.2**	640.6
Dilutive potential of employee share incentives	**1.5**	1.4
Weighted average number of shares in issue – diluted	**612.7**	642.0

Cents		
Earnings per share		
Basic	**3.35**	5.10
Diluted	**3.35**	5.09

Adjusted
The Group is disclosing adjusted earnings per share for continuing operations attributable to owners of the parent Company in order to provide a measure to enable period-on-period comparisons to be made of its performance. The following items are excluded from adjusted earnings:

- Exceptional items
- Acquisition related costs
- Acquired intangible asset amortisation and impairment
- Share-based payment
- Tax effect on the above items
- Prior year tax

A reconciliation is provided below:

	2014		2013	
	$ million	**EPS cents**	$ million	EPS cents
Profit for the year attributable to owners of the parent Company	**20.5**	**3.35**	32.7	5.10
Exceptional items *note 5*	**4.1**		3.8	
Acquisition related costs	**3.8**		-	
Acquired intangible asset amortisation and impairment	**13.7**		8.4	
Share-based payment	**0.7**		(1.2)	
Tax effect on the above items	**(5.4)**		(3.4)	
Prior year tax credit *note 6*	**(1.8)**		(3.7)	
Adjusted basic	**35.6**	**5.82**	36.6	5.71
Adjusted diluted		**5.81**		5.70

8 Dividends paid and proposed

$ million	**2014**	2013
Declared and paid in the year		
Equity dividend on Ordinary Shares		
Final dividend paid for the year ended 31 December 2013 of 2.01 cents per Ordinary Share (31 December 2012: 1.83 cents)	**12.3**	12.0
Interim dividend 2014 1.68 cents per Ordinary Share (2013: 1.53 cents)	**9.9**	10.2
	22.2	22.2
Proposed for approval at AGM (not recognised as a liability at 31 December)		
Equity dividend on Ordinary Shares		
Final dividend 2014 2.21 cents per Ordinary Share (2013: 2.01 cents)	**13.5**	12.3

The directors are proposing a final dividend in respect of the financial year ended 31 December 2014 of 2.21 cents per share (2013: 2.01 cents), which will absorb an estimated $13.5 million of shareholders' funds (2013: $12.3 million). It will be paid on 8 May 2015 to Ordinary shareholders who are on the Register of Members at close of business on 6 March 2015. Payment will be made to ADR holders on 18 May 2015. No liability is recorded in the financial statements in respect of this final dividend.

Dividends are determined in US dollars and paid in sterling at the exchange rate prevailing when the dividend is proposed. The exchange rate used for determining the amount of the final dividend to be paid was $1.55:£1.

9 Reconciliation of profit before tax to cash generated from operations

$ million	**2014**	2013
Profit before tax	**24.1**	39.1
Adjustments for:		
Finance income	**(0.4)**	(0.9)
Finance costs	**-**	0.9
Intangible asset amortisation and impairment	**15.0**	9.9
Depreciation of property, plant and equipment	**19.7**	16.5
Share-based payment	**0.7**	(1.2)
Changes in working capital:		
Deferred income received	**2.7**	12.9
Increase in receivables	**(17.0)**	(6.0)
Decrease in inventories	**4.7**	2.4
Decrease in payables	**2.9**	2.8
Increase in provisions	**0.4**	1.5
Defined benefit pension plan	**(3.9)**	(4.4)
Cash flow from operations	**48.9**	73.5

10 Business combinations

The following acquisitions were completed during 2014. There were no acquisitions in 2013.

DAX Technologies Corp.

The assets of DAX Technologies Corp. ("DAX") were acquired for a cash consideration of $36.9 million on 19 February 2014. DAX is a leading provider of customer experience management ("CEM") solution software that enables mobile and wireline service providers to understand and quantify services as experienced by their customers. DAX is reported within the Group's Service Assurance division.

Converging multi-technology 3G and 4G/LTE networks and services, such as VoLTE, require the use of big data analytics to fully understand the customer experience. The acquisition of DAX will enable Spirent to combine measurements and data from its solutions in the lab and in live networks, delivering high value solutions and expertise that help its customers deploy and manage complex new networks and services faster and more effectively.

From the date of acquisition to 31 December 2014, DAX contributed $10.1 million of revenue and $3.7 million of profit before tax to the results of the Group before charging $0.7 million of acquisition related costs and $2.9 million of acquired intangible asset amortisation. If the combination had occurred at the beginning of the financial year revenue of $10.5 million and profit before tax of $3.4 million would have been included in the Group result before charging $0.7 million of acquisition related costs and $3.3 million of acquired intangible asset amortisation.

The goodwill arising of $23.8 million consists largely of the synergies and economies of scale expected from the combination of the entities together with intangible assets not qualifying for separate recognition such as workforce in place. The goodwill recognised is expected to be deductible for income tax purposes.

Radvision TBU

On 31 July 2014 Spirent completed the acquisition of the assets of Radvision's Technology Business Unit ("TBU") for a cash consideration of $25.9 million. Based in Tel Aviv, Israel, the Radvision TBU offers a complete test suite for Voice and Video over IP communications, including Voice over LTE ("VoLTE"), expanding Spirent's leading portfolio of VoLTE solutions to address needs from early development through to deployment. The Radvision TBU pioneered the introduction of Voice and Video over IP with a range of embedded technologies and test solutions, combining unique expertise in signalling, multimedia and IMS. Used by developers of mobile chipsets, mobile devices and communications infrastructure, as well as service providers worldwide, the Radvision TBU's solutions have helped the majority of today's Voice and Video over IP deployments. This acquisition is reported within the Wireless & Service Experience division.

VoLTE testing is already a critical element in many of Spirent's solutions. Spirent's customers' transition from circuit-switched voice networks to all-IP networks presents huge opportunities for VoLTE and RCS services on mobile devices. The addition of the Radvision TBU will expand Spirent's test solution portfolio to meet the needs of customers, from early in the development cycle right through to deployment, helping to save development time and cost.

From the date of acquisition to 31 December 2014, the Radvision TBU contributed $4.2 million of revenue and $0.5 of profit before tax to the results of the Group before charging $1.9 million of acquisition related costs and $0.5 million of acquired intangible asset amortisation. If the combination had occurred at the beginning of the financial year revenue of $11.7 million and a profit before tax of $2.9 million would have been included in the Group result before charging $1.9 million of acquisition related costs and $1.2 million of acquired intangible asset amortisation.

The goodwill arising of $19.0 million consists largely of the synergies and economies of scale expected from the combination of the entities together with intangible assets not qualifying for separate recognition such as workforce in place. The goodwill recognised is expected to be deductible for income tax purposes.

Mobilethink A/S

On 12 September 2014 Spirent acquired 100 per cent of the share capital of Mobilethink A/S ("Mobilethink") and its wholly owned subsidiary, Tweakker ApS ("Tweakker") for a cash consideration of $20.1 million. Headquartered in Aarhus, Denmark, Mobilethink is a provider of mobile device management, device analytics and intelligence solutions for mobile operators. Tweakker is a cloud-based mobile device configuration solution specifically targeted

10 Business combinations continued
Mobilethink A/S

at Mobile Virtual Network Operators ("MVNOs"). Mobilethink's solutions allow operators to correctly detect mobile devices, configure them for data usage, analyse device population trends, and run marketing campaigns with the goal of increasing average revenue per user. This acquisition is reported within the Service Assurance division.

Hosted and cloud-enabled device intelligence solutions give operators and MVNOs the ability to significantly improve subscriber service experience. The acquisition of Mobilethink combined with Spirent's extensive portfolio of mobile device performance and customer experience management solutions will help drive Spirent's overall growth with additional recurring revenue potential.

From the date of acquisition to 31 December 2014, Mobilethink and Tweakker contributed $2.0 million of revenue and a $0.3 million loss before tax to the results of the Group before charging $0.6 million of acquisition related costs and $0.7 million of acquired intangible asset amortisation. If the combination had occurred at the beginning of the financial year revenue of $7.6 million and a profit before tax of nil would have been included in the Group result before charging $0.6 million of acquisition related costs and $2.4 million of acquired intangible asset amortisation.

The goodwill arising of $11.5 million consists largely of the synergies and economies of scale expected from the combination of the entities together with intangible assets not qualifying for separate recognition such as workforce in place. The goodwill recognised is not expected to be deductible for income tax purposes.

Other acquisitions

From the date of acquisition to 31 December 2014, other acquisitions contributed $2.3 million of revenue and $0.5 of profit before tax to the results of the Group before charging $0.6 million of acquisition related costs, $0.2 million of acquired intangible asset amortisation and $1.0 million of intangible asset impairment. If the combination had occurred at the beginning of the financial year revenue of $2.6 million and a profit before tax of $0.6 million would have been included in the Group result before charging $0.6 million of acquisition related costs, $0.2 million of acquired intangible asset amortisation and $1.0 million of intangible asset impairment.

Testing Technologies IST GmbH ("Testing Tech")

On 20 February 2014 Spirent completed the acquisition of 58 per cent of the ordinary share capital of Testing Technologies IST GmbH ("Testing Tech") for a cash consideration of Euro 1.8 million ($2.4 million). The company develops and markets standardised and customer-specific software-based testing tools which support the development of mission-critical products and workflow steps. Testing Tech also participates in the connected vehicle market which will facilitate Spirent's progress in this market. This acquisition is reported within the Wireless & Service Experience division.

The minority stake of 42 per cent of the share capital is the subject of a put and call option which expires on 31 March 2016. The consideration is based on the 2015 performance of Testing Tech and set at a minimum amount of Euro 1.4 million. An increase or decrease in the projected financial performance used in the put option measurements by 10 per cent would increase or decrease the liability by $0.2 million.

A financial liability of $2.7 million has been recorded to reflect the fair value of the option.

NetGend LLC

On 15 September 2014 Spirent completed the acquisition of the net assets of NetGend LLC ("NetGend"), a Texas based entity, for a cash consideration of $1.0 million. Deferred consideration is payable based on revenue generated during the four year period commencing in 2015 and has been estimated as immaterial. NetGend provides a scalable and flexible application performance testing platform that runs on both cloud infrastructure and hardware and its results are reported within the Networks & Applications division.

An intangible asset impairment charge of $1.0 million has been incurred in respect of the development asset arising on the acquisition of NetGend. The asset had been acquired at a pre-production stage and, although the intention is to use this technology to enhance Spirent's solutions, the extent and the means by which this will be achieved had not been determined at 31 December 2014, resulting in an impairment charge.

10 Business combinations continued

The following table summarises the consideration paid and the assets and liabilities acquired at the acquisition date. Since the acquisitions of the Radvision TBU and Mobilethink A/S have taken place recently, the fair values detailed below are provisional.

$ million	DAX Technologies Corp	Radvision TBU	Mobilethink A/S	Other	Total
Net assets acquired:					
Intangible fixed assets	**14.1**	**7.2**	**12.1**	**2.0**	**35.4**
Tangible fixed assets	**0.1**	**0.1**	**-**	**-**	**0.2**
Deferred tax asset	**0.6**	**-**	**-**	**-**	**0.6**
Trade and other receivables	**-**	**1.8**	**4.1**	**0.1**	**6.0**
Cash and cash equivalents	**-**	**-**	**-**	**0.4**	**0.4**
Trade and other payables	**(1.7)**	**(2.2)**	**(5.0)**	**(1.0)**	**(9.9)**
Deferred tax liability	**-**	**-**	**(2.6)**	**(0.3)**	**(2.9)**
Borrowings	**-**	**-**	**-**	**(0.1)**	**(0.1)**
Total identifiable net assets	**13.1**	**6.9**	**8.6**	**1.1**	**29.7**
Goodwill	**23.8**	**19.0**	**11.5**	**2.3**	**56.6**
Total consideration	**36.9**	**25.9**	**20.1**	**3.4**	**86.3**
Cash flows:					
Consideration	**36.9**	**25.9**	**20.1**	**3.4**	**86.3**
Cash acquired	**-**	**-**	**-**	**(0.4)**	**(0.4)**
	36.9	**25.9**	**20.1**	**3.0**	**85.9**

The intangible assets acquired represent current technology, customer list, database, brands and non-compete covenant and these have been assigned provisional lives of between two to seven years.

The non-controlling interest has been measured as the proportionate share of the acquirer's identifiable net assets and was nil on acquisition.

Acquisition related costs were $3.8 million and these have been expensed to administration costs.

Glossary

3G (Third Generation)	Third generation of mobile communications that delivers data rates of hundreds of kilobits per second to tens of megabits per second.
4G (Fourth Generation)	Fourth generation of mobile communications that delivers data rates of tens to hundreds of megabits per second. Future 4G technologies promise data rates in excess of one gigabit per second.
Agile Software Development	A group of development methods in which requirements and solutions evolve through collaboration between self-organising, cross-functional teams. It promotes adaptive planning, evolutionary development, early delivery, continuous improvement, and encourages rapid and flexible response to change.
Application	A software programme designed to perform a specific function for the end user which uses the services of the computer's operating system and other supporting programmes. Applications include database programmes, spreadsheets, web browsers, graphics programmes and word processors.
Attacks	Attempts to damage, disrupt, or gain unauthorised access to a computer, computer system, or electronic communications network.
BeiDou	China's second generation global satellite navigation system, which is under construction but eventually planned to consist of 35 satellites. Service was launched in China during 2011, with plans to provide service globally by 2020.
Carrier Aggregation	A technique used in 4G mobile communications that allows expansion of the effective bandwidth delivered to a mobile user terminal by concurrent utilisation of resources across multiple radio carriers.
Cloud	A variety of computing concepts that involve a large number of computers connected through a real-time communication network such as the internet. Often used in reference to network-based services served up by virtual hardware, simulated by software running on one or more physical machines.
Continuous Integrated Test Optimisation	A practice in software development environments that employ continuous integration, in which code is built automatically and tests are run against a specific build, providing feedback to developers in a shorter timeframe to allow coding issues to be fixed or code changes to be rolled back to ensure stable code.
Data Center	A centralised location where computing resources critical to an organisation are maintained in a highly controlled environment.
Ethernet	A family of networking technologies originally developed for local area networks, which migrated to metro area networks and eventually became the dominant standard in wireline networks worldwide.
Evolved Packet Core	An integrated IP-based mobile transport network with the ability to support 2G, 3G and LTE coexistence.
Fuzzing	A software testing technique commonly used to uncover security vulnerabilities in software, operating systems or networks by inputting large amounts of invalid, unexpected or random data to the system in an attempt to make it crash.
Global Navigation Satellite Systems ("GNSS")	The standard generic term for satellite navigation systems that provide autonomous geo-spatial positioning with global coverage. GNSS allows users' receivers to determine their location to within a few metres by employing a triangulation technique that uses information from multiple satellites.
Global Positioning System ("GPS")	A global navigation satellite system operated by the United States government for determining a user's location and height at any point on the earth's surface. A receiver uses minute differences in measured time signals from clocks on satellites to calculate these positions and altitudes.

Glossary continued

GLONASS	A global navigation satellite system operated by the Russian Federation. Deployment began in 1976 and, although the system fell into disrepair in the 1990s, full global service was restored in 2011.
Internet of Everything ("IoE")	An extension to today's internet that builds on the compound impact of connections among people, processes, data, and things, where each is intended to amplify the capabilities of the other three. This global connectedness is expected to create additional value as "everything" comes online.
Internet of Things ("IoT")	A network of physical objects or "things" embedded with electronics, software, sensors and connectivity to enable data exchange with the manufacturer, operator and/or other connected devices. Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within existing internet infrastructure.
Internet Protocol ("IP")	The primary network protocol used on the internet and on other network devices to facilitate and control the flow of data.
Internet Protocol Multimedia Subsystem ("IMS")	A standardised next-generation architecture for telecoms operators who want to provide mobile and fixed multimedia services.
Intrusion	An incident of unauthorised access to data or an automated information system.
Jamming	The intentional emission of radio frequency signals to interfere with the operation of GNSS receiver by saturating it with noise or false information.
Long Term Evolution ("LTE")	An advanced wireless data communications technology standard (sometimes called "4G") which is an evolution of 3G UMTS standards. In addition to a new wireless interface specification, LTE uses a simplified flat IP-based network architecture.
LTE-Advanced	An evolution of LTE technology, specified in 3GPP Release 10 and later specifications, regarded by some as the first true 4G technology.
Machine-to-Machine ("M2M")	A technology that enables automated wireless (or wired) communication between mechanical or electronic devices.
Network Functions Virtualization ("NFV")	An initiative to provide a new network production environment which lowers cost, raises efficiency and increases agility by hosting network functions previously carried out by proprietary, dedicated hardware on virtual machines running on industry-standard commodity hardware.
Rich Communication Suite ("RCS")	Also known as Rich Communication Services, RCS is a platform intended to enable mobile network operators to deliver integrated communication services, beyond voice and SMS, over all-IP networks, including instant messaging or chat, live video and file sharing, across any device on any network.
Small Cells	A generic term for microcells, picocells and femtocells. Small cells provide network coverage in dead zones within a macrocell (the coverage area of a traditional cellular base station) and extra network capacity by offloading mobile data traffic from macrocells.
Software Defined Network ("SDN")	An approach to networking in which control is decoupled from hardware and given to a software application called a controller.
Spoofing	An attempt to deceive a GNSS receiver's estimate of its position or time by broadcasting counterfeit GNSS signals, structured to resemble a set of normal GNSS signals, or by rebroadcasting genuine signals captured elsewhere or at a different time.

Glossary continued

Virtualization	Technologies designed to provide a layer of abstraction from the physical characteristics of computing resources to simplify the way in which other systems, applications, or end users interact with those resources.
Voice over LTE ("VoLTE")	A standards-based scheme adopted by the GSMA, the cellular industry's association, to provide voice service over data-only LTE networks. VoLTE's use of an IP Media Subsystem enables voice to be offered as part of a rich communications solution, integrated with services such as messaging, live video sharing and file transfer.
Wi-Fi	A mechanism that enables devices such as personal computers, video game consoles, smartphones or digital audio players to exchange data wirelessly over a computer network and connect to network resources, such as the internet. Coverage ranges from a few rooms to several square miles, depending on the number of access points used.
Wi-Fi Offload	A technique that helps operators manage mobile data growth by seamlessly offloading subscriber traffic from their primary 3G and 4G networks to Wi-Fi networks.
Wireline	Communication services provided over a physical connection, which may be copper or fibre.