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Full Year 2018 Spirent Communications plc Earnings Presentation

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PRESENTATION

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Okay. Good morning, everybody. Welcome to the Spirent Communications' Full Year 2018 Results Presentation. It's a delightful day, and I'm really pleased and delighted to report the results for 2018. It's a really good performance. So welcome.

Just note the contents of the safe harbor statement.

I'll begin with a review of our performance highlights and our performance against our strategic priorities. We established 3 strategic priorities for the business 2 years ago, and in 2018, we've made strong progress in their execution.

First, we have this focus on our target markets. We extended our lead in our high-speed Ethernet performance test, mobile infrastructure and positioning businesses. We grew in the businesses that we targeted. Our orders in our cybersecurity business grew over 20%. We expanded our footprint for our VisionWorks assurance -- Service Assurance solutions into our current customers and secured 3 new customers. And we won deals in over 30 customers for our 5G wireless test solutions.

Second, we invested to develop new innovative solutions for emerging technologies, such as 400-gigabit Ethernet testing. We announced an important partnership with National Instruments to accelerate our time to market for our new 5G device test systems and to expand our customer coverage. And we put in place key account executives that will drive new business opportunities in top customers in 2019 and the future.

And thirdly, we have a strong financial and operational platform: delivered order intake and revenue growth of 6% in 2018; our operating margin expanded to 16%; and the earnings per share grew 44% year-on-year. And we retain a strong balance sheet.

So if I hand over to Paula to review the financial performance in detail. Thank you.

Paula Bell *Spirent Communications plc - CFO & Executive Director*

Great. All right, thanks, Eric. Good morning all. So let's get going, and we'll start with some key metrics here.

Clearly delighted to report a strong trading performance, as Eric mentioned. And despite the heavy weight into the second half of 2018, we outperformed our plan, and indeed, market consensus. Revenue was up 6% for ongoing businesses, and together with benefits of cost initiatives, this results in a material increase in operating profit of 34%. We are delighted with the progress in our operating margin, as you can see here, up 3.4 percentage points to 16.2%. And as you know, we benefit from the U.S. tax reform and other tax initiatives, so together with a strong profit increase, EPS grew 44%. So therefore, with continued confidence in our progress, we proposed to increase the full year dividend in cents by 10%, which is actually a 14% increase in Sterling.

So let's take a look at the financial summary here. And if you remember, we did exit from small business units from our Connected Devices segment in June '17. So we're looking at the comparison for our ongoing businesses.

So 2018 was another busy year. We continued to focus on leveraging our portfolio to match strong demand for 400-gig high-speed Ethernet and our positioning products. Orders and revenue were both up 6%, and indeed, we just missed out on recording some large

Lifecycle Service support contracts in December, which have now been secured early 2019, which would have further increased our order growth.

Gross margin progressed again, now at 72%, as our [software content] continues to grow, now 27% of our sales. Cost remained broadly level compared to 2017 reported figures of $266 million. And as we had hoped, cost initiatives mitigated around $8 million to $9 million of cost inflation. The operating profit improvement in the year, around $20 million, has therefore been driven by both revenue and the cost savings. Cash closed $121.6 million, and we continue to focus on strong cash conversion. Here, you see the tax rate of 15.4%, and we expect that to remain in the 15% to 16% range looking ahead.

So as Eric mentioned, EPS grew 44% in '18, and remind you, 43% in 2017. So 2 years of demonstrable material value accretion here.

Right. So in the usual format, I'll take you through the portfolio performance. Now our reorganization of these segments in 2017 allowed us to focus on taking the right actions quickly, be it supporting our growth areas or to transition our Connected Devices segment to drive improved operating margin. And overall, you can see here progress made across the whole portfolio.

First, turn to the performance of each of these. Networks & Security, revenue grew by 9% and operating margin grew to 19.8%. Now we picked up most of the available 400-gig, high-speed Ethernet work in the market and firmly embedded within our customers our key plans now for this new technology. So we remain well placed as a market leader for this core segment of our business portfolio. We benefited from very strong demand for our positioning products for U.S. government, and we delivered an exceptional level of business with 1 particular customer for over $10 million of sales, which will not repeat into '19.

Our security business with its credible CyberFlood platform secured order growth of more than 20%, winning more logos and more subscription work, which I remind you, does defer our revenue into some future years. But the business is well placed and momentum continues.

For Lifecycle Service Assurance, revenue grew 3%. And although the operating profit broadly held, we did invest more in our marketing activities to expand our customer reach. VisionWorks continues to develop and pipeline expands. So we did suffer as a result of recent customer major reorganizations, which delayed some orders, now received. So the order book is currently in good shape for further progress.

At Connected Devices, we had revenue stabilized, as you can see here. And operating margin improved as a result of the cost actions taken, and this delivered performance which exceeded our expectations and plans. So looking forward, we expect a broadly level performance in 2019 as the business invests and prepares for its 5G product launch the second half of 2019, which will drive sustained revenue streams from 2020 onwards.

So overall, the margin and the portfolio at 16% is now in the right range for the group as we progress forward.

Now a quick look at the revenue bridge here. We consider the impact of disposals there at the first part of the graph, and there you can see the strong performance in Networks & Security as I said 9% growth. Lifecycle Service Assurance contributed 3% growth, and it was great to see no decline in Connected Devices.

So also I've put this slide, and this should show our extensive diversification. Our geographic portfolio remains more than half of U.S. customers and grew $17 million from 2017. Now the U.S. - China trade challenges are prevalent, but the trade embargo which we experienced earlier in the year quickly unraveled and shipments were reinstated. We retained a watching brief on the market. We are not experiencing any adverse impact to our business or pipeline.

We actually grew sales in China. They were up 4% in 2018, but offset with some weakness in Southeast Asia. So our revenue from Asia Pacific remained constant in '18 and remains at 1/3 of our business. And it also remains that the top 10 customers make up 40% of our revenue, and not one customer holding more than 7% share.

So if you take a look at the cost profile here. Now our strategy is to focus on investment into growth areas and to ensure the necessary support activities are also in place, such as innovation, sales, talent and capabilities and routes to market. Now the plan is working well, and we broadly mitigated cost inflation in the year and maintained a flat cost base. We are focused on product development across all segments. We have driven synergies from consolidation of various engineering activities. And as a result, you can see here, product development costs reduced from $112 million in 2016 to $97 million despite inflation. And then we have [account] reductions and they're mainly from our Connected Devices segment.

Selling and marketing costs increased in the year. It was driven by marketing investments for future growth areas, mainly for Lifecycle Service Assurance; and we also refreshed the Spirent brand. The cost of our sales organization has only increased by inflation, following its reshape in 2017.

So we've now removed over 200 heads. That's more than 10% of the staff base. We are much more rightsized. We have resource allocated to the most critical technology investments and evidenced by our retained market leadership position in our largest businesses.

Now I shared this graph at the Capital Markets Day in early '17. And internally, we set our medium-term target cost base, which are these percentages showed at the right-hand side of the graph. If you look back in time, to the left-hand side of the chart, here you can see a period of reduced R&D investments booked to 2012. This had a subsequent material adverse on revenue and profit the following year. And this phase was then followed by a chapter investment to drive a new advanced technology during 2013 to 2016. And from then, it's then allowed us to refine our portfolio to focus on growth sectors and manage our investment sensibly to deliver sustainable, robust operating margins.

Now we've already delivered against our internal product development ratio as a percentage of revenue, as you can see here, 20%. We've held our administration costs on target. We are currently still investing in our marketing activities to underpin routes to market for future growth, so it's 1% above our initial internal target. But we have reduced the cost base from 61% to 56% of revenue. And we now target to retain our operating model as set out here.

So what does that mean? So to be clear, the operating cost base in 2019 will clearly grow in absolute dollar terms as the top line grows. As I mentioned, the current group operating margin, now in mid-teens, is a sensible target range to maintain in a short to medium term as we continue to focus on the growth.

So here's just a bridge of the operating profit. As you can see here, very strong contribution from Networks & Security. And all the businesses in the segment performed well, as I say, benefiting from our market leadership position in high-speed Ethernet and positioning. Other segments also contributed well, and we see benefit across the whole portfolio. As you saw from the cost analysis, we have redirected some of our costs in developing routes to market to naturally follow the evolution of expanding our technology portfolio, which will drive a further sales growth. So operating profit grew from $57 million to $77 million.

For completeness, we did incur some exceptional costs in the year. And a lot of U.K. businesses are reporting a charge for the guaranteed minimum pension equalization for men and women, following the Lloyds Banking Group judgment. And we also created a provision for import duty for an ongoing dispute we have with the French Customs regarding their classification of our imported goods into EMEA dating back to 2011. So we reported this as a contingent liability in our 2017 report and accounts, but we've now received some formal communication from the French authorities after an 8-year inquiry.

Cash flow. So cash remained strong. We generated $60 million of operating cash in the year. And essentially, we repaid most of this back to shareholder in the form of dividends. CapEx was $12 million, and with no notable proper new IT requirements in the year, we intend to spend around $12 million to $15 million of CapEx each year.

Just for your information, we have done all of our work on IFRS 16 for the coming year, the accounting standard relating to leases, and it's immaterial to profit before tax. We will add property leases of around $25 million net book value to the balance sheet.

So we continue to focus on cash conversion. We retain a strong cash profile. And as we did describe in our balance sheet policy last year,

we affirm our plan to retain cash on the balance sheet to mitigate technical downturn risk, yet we also retain flexibly should we wish to focus on inorganic growth. And as we move forward, R&D provides further returns to shareholders.

So a recap on our financial model. We continue to be precise where we invest. We operate in markets with clear growth drivers. We continue to develop our market-leading technology, where we can compete using our differentiation. We continue to have very strong customer relationships and this drives sustainable earnings growth. The strategy we outlined in early 2017 is being executed, and we have demonstrable proof points now of our progress and momentum continues.

So maybe for the last time, I shall hand over to Eric.

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Thank you, Paula. Thank you very much for that review of the strong financial performance in 2018. I'll now describe our strategic priorities and share some case studies which highlight the value we deliver to our customers.

Throughout 2018, we saw the dominant market drivers positively impact our businesses. Our product and service portfolio and plans aligned strongly with these market drivers. Our industry was highly impacted by 5G projects and investments, pervasive cybersecurity threats and the imperative to assess cybersecurity readiness and vulnerabilities, the demand for high-speed 100-gigabit and 400-gigabit Ethernet test solutions, network virtualization and the proliferation of connected devices. We have a broad 5G wireless test and service assurance product offering, and as I said, added over 30 customer wins for our 5G solutions last year. We have cybersecurity test products and services. We were a founding member of NetSecOPEN, the industry group of vendors, test laboratories, test tool providers, to develop test specifications for security performance benchmarking. We're the market leader for high-speed Ethernet performance test systems, and we provide comprehensive service turn-up and assurance solutions. We offer solutions for the development, benchmarking and service assurance of virtualized network functions, and we enable the development and launch of new connected devices such as smartphones, connected cars, other vehicles based on video location-based service and public safety applications, and also, into Industry 4.0 and the Internet of Things and their applications.

Few technologies have arrived with more fanfare or greater promise than 5G. 5G will empower a digital revolution, transforming the way that we live and work. And 5G wireless is in its infancy. Within 2018, we've seen the first bandwidth released and the first commercial deployments. This year, we will see the first 5G devices come to market or network launches. 5G will open new markets and drive growth for the next 10 years. From 2020 onward, we will see mainstream network launches in the dawn of 5G-enabled industries such as automotive connected vehicles, smart infrastructure and industrial automation. Spirent is very well positioned to take advantage of the 5G opportunity and to enable and assure the industry delivers on the promise of 5G.

Each of our business segments are impacted positively by this. 5G drives the buildout of high-speed Ethernet networks and their devices. Our radio frequency channel emulator, an automated device per systems, are essential for 5G and IoT testing. New security threats drive our business, as the readiness and vulnerability of products and networks are assessed. Our 5G mobile test systems are essential for 5G development, the field trials and the buildout; and our active service assurance and analytics solutions are essential for the management of those 5G networks.

We provide a safe pathway for our customers across the technology life cycle as they develop, launch and operationalize 5G. We help our customers at every stage of their 5G journey. We simplify 5G by reducing complexity and cost of testing, verifying and launching 5G devices, networks and services. We accelerate 5G innovation and reduce the time to market for new services, and we assure 5G operationally delivers new experiences, accesses to revenue streams and savings promised.

So let's look at our 5G success in 2018. As I said, we've created a broad and innovative set of 5G test and service assurance solutions and won considerable number of customers. Our customers include Tier 1 communication service providers, major network equipment manufacturers and the largest 5G semiconductor and device manufacturers.

Let's have a look at some examples of the value that we're delivering. Firstly, for a Chinese network equipment manufacturer of 5G base stations, their challenge was the complexity of validating 5G new radio technology. It was delaying their time to market and increasing

their costs. Spirent's innovative new test methods in 5G channel emulations simplified the validation of these complex new radio systems safely, securely, bringing them to market faster at about 50% of the cost of existing [referential] test systems.

For a large global equipment manufacturer, their challenge was the complex combinations of 5G tests required about 7 weeks to execute. They wanted to reduce their time to market. Again, Spirent's 5G Lab as a Service managed and automated the lab resources to reduce their test cycle time by more than 70%, dropping from 7 weeks to 2 weeks.

A U.S. communication service provider was preparing to launch 5G. Their challenge was to reduce their costs to test and validate the new 5G network and cell sites, deliver the promised new data performance and subscriber experience. Spirent provided 5G data experience evaluation with repeatable and predictable testing in their lab and in their network, giving them the confidence that their 5G network will deliver the new user experience.

At the 5G Innovation Centre at the University of Surrey, their challenge was they had no user equipment, traffic mixes or capacity to create real-world conditions. Spirent's mobile infrastructure test system emulates 5G user equipment and traffic, thus thereby creating the world's largest capacity 5G test bed, focused on accelerating service innovation.

So Spirent is at the cutting-edge of 5G innovation, establishing collaborations with industry leaders such as National Instruments and the 5G innovation centers such as the University of Surrey.

We'll turn to Networks & Security. In Networks & Security, we remain focused on executing our plans. We've delivered our strong business performance in 2018, and we'll yield further growth in 2019 and beyond. We will build on our market leadership in the Ethernet performance tests, as demonstrated by the key wins last year. We demonstrated our highest density quad line-rate system, as recognized by RFC; and we launched the first 25-gigabit network emulator. We will grow our cybersecurity business in vendors, service providers, enterprise and government. We delivered our new data breach emulation and broadened our sales coverage. We'll support the industry open organization, NetSecOPEN, on the development and adoption of their security performance benchmarking. We'll extend our market leadership in our positioning solutions. We launched the first M-Code solution, granted Security Approval by the GPS Director in the United States in 2018. We will expand our business in the commercial segment, and we'll explore business opportunities in autonomous vehicles.

Let me share a 400-gigabit Ethernet case study in 2018. Here, the aim was to increase data center and network capacity significantly. A leading network equipment manufacturer was planning their 400-gigabit product rollout. They wanted a partner to assure they capitalize on their first-to-market advantage. Spirent's TestCenter, with the highest density and automation capabilities, seamlessly tested Layers 1 to 7, and it was selected for their first global deployment.

Turning to GNSS. In this case, vehicles are becoming more dependent on positioning technologies. Here's an automated customer who needed to evaluate their global navigation satellite system receiver performance in their laboratory. They wanted to simulate real-world conditions. They required an open framework for test development and automation. Spirent's GNSS7000 simulators and our Sim3D, our environmental modeling tool, and the PT TestBench provided the comprehensive, automated solution for their interoperability test bed. The system provided trusted, actionable test results. They reduced their need for drive testing, which reduced their deployment cost and accelerated their time to market.

If we turn to Lifecycle Service Assurance. We're confident we have the growing customer need and demand for service assurance solutions by combining active testing, automation and analytics. Customers see that our VisionWorks solutions effectively meet their expectations to assure network performance and customer experience. Complexity drives the industry to rethink how we effectively operate and manage networks. Cloudification, network automation and artificial intelligence are driving radical changes in network operations. In 2019, we'll expand the adoption of VisionWorks in our North American customer base and develop our business in EMEA. We expect to grow our business and extend our market leadership in mobile infrastructure testing as our Landslide product is an essential tool for 5G development and is increasingly used for field trials and service turn-up in the network. Landslide emulates users, traffic mixes elements of the network in the lab or in the live operations.

With our close engagement with our customers, we clearly see their challenges to launch new services faster to significantly reduce costs and to find new ways to differentiate their services. They're working towards network automation, and we're working to automate service assurance. Our VisionWorks solutions have demonstrated greater-than-10x faster service activation and turn-up; proactive service quality monitoring, avoiding multimillion-dollar service level agreement violations; rapid isolation of faults, realizing multimillion-dollar savings; and faster customer care handling, reducing costs and improving customer satisfaction. Our solution includes modules for customer experience assurance and for service assurance with 4G and 5G mobile networks and Ethernet IP transport networks.

So let me share an LTE case study. A Tier 1 North American service provider launched their LTE beta services and advertised a specific performance level. They wanted to measure the customer experience proactively to ensure they met their advertised performance. The service provider deployed Spirent VisionWorks test agents nationwide and in their core network. The system reports their performance and automatically isolates issues to the radio core network -- to the radio or to the core network. The customer's business impact included service updates that go live 1.5 months faster, fault isolation capabilities that delivers them continued savings and avoids other costs. The return on the investment was less than 18 months.

In our Connected Devices business, we will focus on realizing our potential for 5G. We will integrate our applications on the National Instruments platforms. We'll release the new 5G radio test systems in the second half to 2019, and we demonstrated the solution at MWC in Barcelona last week. We'll enable our customers to navigate the transition from 4G to 5G, especially for video and location-based services and public safety applications. As 5G requires new radio frequency testing, our channel emulator is available to meet these requirements. We demonstrated the world's first 5G OTA Massive MIMO beamforming test bed with Huawei and the China Academy of ICT.

Let me show you an interesting case-to-case study for a leading petroleum company. Here, the requirement was to assure critical communications for operational efficiency and [secure] purposes. The task related to the communications from their offshore drilling platforms to their private LTE base stations onshore. They needed to simulate unique real-world radio frequency conditions in their labs. Spirent's tailored emulator provided the solution. Spirent defined the test methodology and solution that simulates the environment, injects noise, delay and other anomalies. The customer business benefit has been significant. They have faster test cycle times, consistent, comparable test results, which has lowered to their operating costs and assured confidence in their network performance.

Here's another example. A North American service provider wanted a faster and more cost-effective way to verify and evaluate their 5G network data performance in the lab and in their new 5G cell sites. Spirent's solution evaluated web browsing, file transfer, radio frequency states and diagnostics. The solution provided a repeatable and predictable test campaign in the lab and in the live network. They reduced their storage requirement by 80%, reduced their cost of operation and increased their quality of service.

We have a strong operational platform to grow revenue and improve operating profit. We've implemented the key account program I referred to earlier with senior client partner executives leading cross-functional teams to focus on top accounts. We've built a global channel partner program to extend our reach globally and into new segments. We launched, as Paula referred to, our new brand, Promise Assured, and the business initiative that highlights our focus and commitment to understand our customers' promises and enable and ensure that they fulfill them to their customers. We've completed our account management review, and we'll develop and obtain the talent we need to design, market and sell and support our innovative solutions in the future. We created our leadership program with a focus on developing our next generation of senior and executive management.

We reviewed our sites. We made adjustments, and we're executing on the redesign and consolidation. We maintain a strong focus on cost-effectiveness across all functions to optimize our investment in new capabilities. We're focusing on our go-to-market strategy. We'll expand our key account program, our account base marketing and invest in digital marketing and automation. We're committed to keep a sharp focus on our target markets, innovate and reinforce and leverage our strong financial and operational platform. We're confident that we're well positioned for growth, aligned to the dominant market drivers that will positively impact our industry and our business. We have a strong 5G product portfolio and see the opportunities to deepen our products and service offerings to realize the potential of 5G wireless.

We have several market leadership positions in high-speed Ethernet, mobile infrastructure test and in positioning technologies. Our

Lifecycle Service Assurance and cybersecurity businesses have demonstrated their success in 2018 and are positioned to grow our business with rising demand in the future. Our business cycle will continue likely to be seasonally second half-weighted, has been our experience and certainly the industry's experience for many years. With these supporting points and factors, the board are confident that we will continue to see steady, profitable growth in 2019.

So I thank you for your attention, and we'll open up to Q&A.

QUESTIONS AND ANSWERS

William Kirkness *Jefferies LLC, Research Division - Equity Analyst*

It's Will Kirkness from Jeffries. I've got 3 questions, if that's okay, one specifically on VisionWorks and then LSA. Just -- you talked there about further rollout, just wondering how far you have penetrated so far your customers and how much there is still to go for.

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

So in terms of our served customer base, we really are just starting, quite honestly. So there's an awful lot more to do. There are more use cases to develop. We -- the new customers that we brought on are initial service turn-up and activation. So we see there's a lot more prospects to go with our existing customers and now we're looking to take it to some new customer opportunities, but there's quite a long lead time on the deployment and proof of concepts and trials so that new customers in other regions, we'll probably benefit 2020, revenue throughout in 2019. But we're really just beginning.

William Kirkness *Jefferies LLC, Research Division - Equity Analyst*

And then your comments on some orders falling into fiscal '19, and I guess, you've got a whole 2 months trading. So visibility -- there's obviously a second half in Q4 waiting, but visibility and confidence into -- for this year anyway so far .

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Now on some of the specific transactions that we're expecting to book in 2018, they've actually come in, in the first 2 months. Some of those, as Paula referred to, were related to service support contracts. So didn't impact to revenue in 2018, but they certainly underpin and assure the revenue streams for 2019. And one of the contracts was a follow-on expansion of VisionWorks, which is now being booked in February. So some of these delayed activities have certainly come through already.

William Kirkness *Jefferies LLC, Research Division - Equity Analyst*

Okay. And then, just finally, I'm thinking about capital allocation. I guess, may be difficult to answer given board changes coming up, but do you see much out there in terms of deals, anything that can help your growth? Or the valuation is not realistic for good value integration?

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

So there are always opportunities that come up. It depends on which segment we're looking at. Some valuations are bit heavy, particularly in security. There are things that are more sensibly priced in expanding -- and particularly, within service assurance. I think my direction to my management team was really get the business back into good, solid, sustainable organic growth, then we could then open up to look at inorganic development. And really, I'm just looking to retain the firepower for our new incoming CEO to execute on that, if that's the correct strategy to follow.

David Terence Mulholland *UBS Investment Bank, Research Division - Director and Equity Research Analyst - Technology Hardware*

I'm David from UBS. Just a few questions. On the comment you made on the 400-gig cycle that you won basically all the business or most of the business that was available in '18, I'm just wondering if you could comment on how you see kind of growth in the 400-gig market in '19 and how that balances with the potential to see a bit more competition, typically in the kind of second, third year of any technology cycle.

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Yes. So we -- because we were first to market with the full functionality, we won a lot of beachhead opportunities and we won the position to gain market share. We didn't clean up on everything by any means. We've -- there were some delays to the deployment of

400-gigabit Ethernet, which has to do with the optical connectors which were overheating. So that had to be resolved before it really starts to step up. That enabled competition to catch up a bit with us, with, so they've got more comparable product. We will be launching further enhancements that will then put us ahead again. In terms of the development of 400-gigabit, it's now moving into the strong growth phase. I'm certain we would expect to see a strong demand for 400-gigabit over the next 2 to 3 years. Competition is there. They are able, highly competitive, and they're looking to both retain and win back share. So it's a hard bullfight. I don't see that there's a particular change in the dynamic at all. It's just the way that we've been doing business in Ethernet for as long as I've been involved in the business, so nothing new there. But there's certainly a -- structurally, a strong demand cycle for 400-gigabit Ethernet and -- as we start to talk to customers and we've demonstrated some terabit development. So I think the real question is how quickly terabit will follow on, on 400-gigabit.

David Terence Mulholland *UBS Investment Bank, Research Division - Director and Equity Research Analyst - Technology Hardware*

That's great. And then there was a comment on Connected Devices. Obviously, the new products have now launched, the H2 product release, and more of a benefit in H2 throughout 2020. Just to understand, because then your commentary is to expect a fairly flattish year on Connected Devices, but is there a pocket of weakness in H1 and then recovery in H2? Or just to understand in terms of year-on-year growth rates the phasing on H1 versus H2.

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Yes. So there's still an underlying trend of decreasing activity on 4G LTE, so that was a headwind. The 5G solution, we see in 2019 should help fill that gap, which is why we're saying we probably expect flat revenues. There are some specific customer opportunities that could benefit the first 6 months, but it's likely to be that 5G certainly doesn't drive any revenue until the second half for Connected Devices specifically, other than the channel emulator, which is going full speed ahead throughout the peaks.

David Terence Mulholland *UBS Investment Bank, Research Division - Director and Equity Research Analyst - Technology Hardware*

That's great. And just one. It seems like in -- from what I'm hearing from you, that your confidence in competitiveness in Connected Devices as we go into the 5G cycle certainly increased over the last 6 months compared to where it might have been 12 to 18 months ago. I know you've done a very good job of managing the cost base in that division specifically. Is there any potential you need to reinvest a little bit more? Or how are you thinking on that side of it now?

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Yes. So as we see the growth opportunity, then we will add resources. We've been contracting out to add flexibility. The collaboration with National Instruments is certainly giving is increased capacity, which will go through by integrating their solutions into our platforms so we wouldn't -- we don't have to put a huge amount of money into development and engineering to deliver that 5G solution, which is where we would have been if we had developed that technology base ourselves. So we will put money back into developing Connected Devices as we see those prospects.

David Terence Mulholland *UBS Investment Bank, Research Division - Director and Equity Research Analyst - Technology Hardware*

That's great. And final question for me. There's 2 trends within the business in terms of IoT and the kind of opportunities you see on kind of engagements you mentioned with the oil and gas company. The -- your customer base looks like it's broadening over the next 2 or 3 years. Is that fair? Or how do you see your kind of penetration of a broader customer base over the next 3 to 5 years, given new IoT device players, given private wireless network builds, which is potentially going to be a much bigger thing in 5G, and what that means for the business model?

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Yes. So the best technologies are becoming much more relevant and the drivers of business growth in other verticals. And we've got something to offer in these different areas. I've seen most of our expansion there being through new partnerships, new channels welcomed to our direct sales team. We'll focus on what we're good at in terms of direct fulfillment, but we're certainly seeing that our partnerships and channels are opening up opportunities to new customers. And really, the oil rig example was something interesting and unusual for us. We're starting to see some other things coming through in other areas as well.

Janardan Nedyam Menon *Liberum Capital Limited, Research Division - Technology Analyst*

It's Janardan from Liberum. Just on the OpEx growth rates that you're expecting. I grant that you're saying that it will grow in line with revenue, but at this point, you must be having some sort of a plan on how much you want to grow it by. Can you share what that is? Is that like a mid-single-digit kind of growth rate that you're targeting right now for OpEx?

Paula Bell *Spirent Communications plc - CFO & Executive Director*

Yes, single digit. We start on the 1st of January each year with a salary inflation. Remember, nearly 70% of our cost base excluding depreciation is people, right? So we have our inflationary rise on the 1st of January every year. And then to support the growth -- the top line growth, then we'll continue to invest in our R&D and our sales capabilities. So it's important that we balance that investment whilst retaining efficiency along the way. So yes, single digit.

Janardan Nedyam Menon *Liberum Capital Limited, Research Division - Technology Analyst*

And is that a fixed plan? Or if you think that your growth rates accelerate over the second half of the year, would you be looking to increase that investment or would you sort of keep your plan?

Paula Bell *Spirent Communications plc - CFO & Executive Director*

Yes. Well, the way I recognize it is that we invite the general managers to constantly look for entrepreneurial ideas and technology investments, and they deliberately bring in an investment case. And we review that case-by-case. And within that case, they'll be very clear what the investments are for, which are the market and the R&D. And so we incrementally add on to the cost base via an investment appraisal process, which works pretty well.

Janardan Nedyam Menon *Liberum Capital Limited, Research Division - Technology Analyst*

Going back to VisionWorks and Lifecycle Service Assurance. So if you just -- I mean, there are 2 parts, really. One, you've sort of made an initial inroad to campaigns like, say, Verizon or AT&T or large operators in the U.S., and you've done that for about a year or slightly more than that right now. So how do you see the growth in an existing account of that nature? Is that now a lot easier to penetrate further? You're still at the early stages, you said. Is that a lot easier to penetrate further, and therefore, see reasonable growth within that account? Or are you counting more on the new accounts to generate growth within the VisionWorks platform?

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

So we're able to demonstrate the real value of the delivery of -- deployment of VisionWorks with existing customers. So in that sense, the customers are seeing the value. So the next use case, the next regional deployment or -- whether it's in transport service turn-up for mobile services, it's easy to demonstrate the value proposition. So we naturally grow the business with our existing served customers. To go win business with a new customer, we've got to first identify what's their, really, key economic problem, which -- it differs from carrier to carrier. They're not all identical. How we identify that, we then need to demonstrate through our proof of concept and our trial, that we can help them with that. So that's why it's a longer lead time. And as I said, I see that revenue benefit is going to be based on activity now, and it really will be 2020 rather 2019. And certainly, there was a lot of expansion of what we were looking to do with VisionWorks. They got delayed in 2018. So we see a pretty solid base and we see a very solid demand backdrop and everything to do without building out mobile infrastructures or 5G wireless networks globally.

Janardan Nedyam Menon *Liberum Capital Limited, Research Division - Technology Analyst*

And the legacy lab testing within that division, is that dropping still? Is that flattening out at this stage?

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

So it's challenged in a sense that the communication service providers don't want to spend money on lab testing. They want to do away with lab testing. They are redeploying their talent engineers into live operations and they want to do assurance in the live network. So that part, which used to be quite a significant piece of the business, is really being squeezed out in the communication service providers. In other areas, with innovators around 5G development, those lab activities continue to be strongly funded. But there, they're looking for us to be much more innovative around automation and the concept of Laboratories as a Service. So we've got a major equipment manufacturer, where we are automating all of their lab equipment, their different laboratory sites, so they can access that capacity globally, which gives them a much higher capacity utilization, and therefore, lowers their costs. So it's that type of activity where we're

seeing opportunity. So overall, we're probably not going to see a decline in the lab business in quite the same way that we feared we might see it.

Janardan Nedyam Menon *Liberum Capital Limited, Research Division - Technology Analyst*

And on the National Instruments, this is for handset testing the second half product, isn't it?

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

So it's the testing -- it's device testing, yes. So whether that's a small-sized handset or whether it's an IoT device, but it's really tagging into anybody who's using -- is looking to get -- to do performance testing on whether it's the chip level or the device level; whether using our software tools for principally video positioning applications primarily and some public safety in United States in particular; whether using the National Instruments' platform, there's now an upgrade path where they can use our software. Most of our customers that we sold systems to deploy National Instruments platforms in addition to everything they do with us anyway. So it's a natural upgrade path.

Janardan Nedyam Menon *Liberum Capital Limited, Research Division - Technology Analyst*

This is not coming too late in the day, in the second half of this year, because your competitors presumably have a similar product already in the market?

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Competitors have got some similar products. The whole performance test market is later in cycle. So most of the innovation that's been going on in 5G has been around the new radio, and that's driven very high levels of demand. And you can see our key competitors have benefited from that demand. But performance testing is later in cycle, always has been, no matter what number G it is. It comes a bit later. So we're not too late on the performance test market.

Janardan Nedyam Menon *Liberum Capital Limited, Research Division - Technology Analyst*

And my last question. Do you have a number for the subscription part of security for the full year? Or you integrate it toward the end of the year and would also...

Paula Bell *Spirent Communications plc - CFO & Executive Director*

Yes. I mean, we deferred about $6 million, $7 million of subscription revenue into 2019. And that momentum will continue to build, yes.

Janardan Nedyam Menon *Liberum Capital Limited, Research Division - Technology Analyst*

And that would be on a base of about $40 million or so?

Paula Bell *Spirent Communications plc - CFO & Executive Director*

Slightly less, about $35 million of orders, yes.

Luke Holbrook *Stifel, Nicolaus & Company, Incorporated, Research Division - Analyst*

So it's Luke Holbrook from Stifel. I wondered if I could ask you on the one-off contract $10 million in positioning, how often those kind of contract opportunities come up. Do you expect another opportunity in 2019 of a similar size?

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Well, the contractors -- the contract sizes tend to be in the $4 million to $5 million bracket. $10 million was an unusually large contract. So $10 million is pretty unusual. There may be prospects where we'll see a number of $3 million to $5 million contracts, but it's an area where our visibility is limited by the very nature of what's being done. We clearly don't have close insight, at the Spirent level, into secured, classified operations.

Luke Holbrook *Stifel, Nicolaus & Company, Incorporated, Research Division - Analyst*

And just a follow-up, just again on the Lifecycle Service Assurance VisionWorks. Whereabout do you see the kind of competitors moving in the market like EXFO, NetScout? Are these guys increasing their kind of competitive pressures on you?

Eric G. Hutchinson *Spirent Communications plc - CEO & Executive Director*

Yes. They're certainly -- the world is moving towards the concept of active testing assurance tools. You'll certainly see our friends at EXFO talk a lot about that. I have yet to see NetScout launch anything. I'm sure they're working on something. So yes, competition is bound to increase from hereon.

Any other questions from the audience?

Okay. With that, thank you very much, and look forward to further progress in Spirent and a great 2019. Thank you.