

# the purist

issue 11: january 18



# 2018

we've got plenty of treats in store for you. Happy New Year.

## also inside...

### state of the internet p6

We all assume the internet is a safe place to trade, but is it really as secure as you might think? Do you know where your data is going and how it's being used?

### AI in the workplace p8

Whether you work in a factory or in an office, if you carry out tasks that are fundamentally predictable and routine, could your job be done by a machine?

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In 2018 when electric cars are mentioned, most people think of Tesla. With the reveal of the Semi and Roadster, are Electric Vehicles the future of the automotive industry?

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## a word from the CEO



Stephen O'Brien

### Happy New Year!

With 2018 upon us I would like to take this opportunity to thank our loyal and valued customers for choosing pure technology group for your IT solutions and services. We wish you and your families a very Happy New Year and hope that 2018 will provide many opportunities to strengthen our relationship further.

We owe our continued strength and success to your support and I would like to say a big thank you for trusting us with your business.

I would also like to take this opportunity to thank our dedicated team of professionals for their hard work throughout 2017. Your enthusiasm, professionalism and exceptional customer service have made our company what it is today and you should be proud of this achievement.

We are excited to start 2018 with high hopes and ambitious goals. As always, we've been growing as a company and have welcomed several new people to the team this year. Take a look at our new starters on page 4.

More customers are trusting us to provide their technology solutions. This, together with our ongoing commitment to 'continuous never-ending improvement', will, I'm sure, be the cornerstone of our future success. As a professional buyer we know what you want from a professional supplier – and with the pure technology group this is what you get!

Here's to wishing you the gift of peace and prosperity throughout 2018.

Enjoy the read.

Many thanks



Stephen O'Brien  
CEO

don't get  
complacent,  
get compliant.



# gdpr

workshops

The General Data Protection Regulation (GDPR) takes effect on 25th May 2018 (regardless of the UK decision to leave the EU) and it will impact every organisation which holds or processes personal data. It will introduce new requirements, new responsibilities and substantially increased penalties for non-compliance or breach than the Data Protection Act (DPA) which it supersedes.

Join one of our series of workshops to learn more about how this change in legislation will impact your business, and how you can achieve compliance without expensive consultancy. You'll receive a round-table consultation as part of the workshop and a **FREE** compliance toolkit, including; project plan, data audit sheets, privacy notices, sample impact assessments and 3rd party notices for you to take away and use for your own organisation.



May 2018



FREE toolkit



consultations



James Blackburn  
Group Marketing Manager

are you ready?



# awards

THE INVESTORS IN PEOPLE  
**AWARDS 2017**  
FINALISTS

## IIP Gold Awards 2017: Finalists

pure technology group attended the global Investors in People Awards 2017 and were nominated as Finalists for the Gold Employer of the Year Award 2017.

Organised by Investors in People (IIP) and judged by a panel of 8 influential business professionals, the awards took place at the Old Billingsgate Market in London on the 23rd November 2017 in front of over 1000 industry specialists.

Recognition from IIP highlights the group's commitment to investing in employee's skills and providing them with the very best working environment to enable success. Congratulations to all of the other Finalists and Winners.

Michelle Lazenby, Group HR Director, commented:

"Being nominated as a Finalist is a tremendous achievement for the group and something we can all be proud of. This illustrates that through significant growth and change, our team truly stand together and continue to appreciate and benefit from the investment and development the group has to offer. We will continue to invest in developing skills, enhancing our working environment and ensuring we have a culture that is one which we can embrace and enjoy."

## UK IT Industry Awards 2017: Finalists

The pure technology group was also proud to be nominated for the Organisational

Excellence Award - VAR of the Year at 2017's UK IT Industry Awards. The UK IT Industry Awards focus on the contributions of individuals, projects, organisations and technologies that have excelled in the use, development and deployment of IT in the past 12 months.

The pure technology group is proud to have been recognised at this level, and to stand among some of the best IT companies in the UK.

Cliff Fox, group COO, writing to staff said:

"I'd like to thank Anne Davison and Michelle Lazenby who worked on the submission with me and Michelle and Steve Everiss for presenting the Group so well to the judges in Reading a couple of months ago. I'd also like to thank George, Lindsey, Richard and Russell for going to London to represent us and, most importantly, you all, because your work got us there."

The recognition we've received this year has surpassed all expectations; nominated as Finalists in 5 National Awards. Two we've won, and three we've been placed. This is way more than we envisaged at the start of this year. These Awards enhance our reputation to customers, partners and everyone in the IT sector."

We look forward to continued success and recognition in the future.



**Anne Davison**  
Group HR Executive





George Koprowski  
new starter  
Account Manager



Scott Burns  
new starter  
Project Manager



Hayley Hopkinson  
transferred to  
Account Management

# people

The group is pleased to welcome two new members to the team whilst announcing several changes.



Steve Everiss  
promoted to  
Group Systems Manager



George Marsh  
promoted to  
Senior Engineer



Adam Royds  
transferred to  
Technical Security Manager

# understanding blockchain

## 2017 was an exciting year for blockchain

While the bulk of blockchain news concentrates on cryptocurrency and bitcoin, the real reason why blockchain is exciting is that its structure can be used for other sectors, including sustainability.

Blockchain, the buzzword of the year, the fairy dust that is supposed to solve all our problems. It's the technology that underpins Bitcoin and most other cryptocurrencies which it is often confused with. However, the umbrella of distributed ledger technology has applications beyond cryptocurrency. Blockchain is a digitized public ledger of all cryptocurrency transactions. These transactions include Bitcoin (BTC) and rival currencies like Ether (ETH) and Ripple (XRP).

Today, we see adopters in business environments in nearly every industry, ranging from financial and banking, through manufacturing and supply chain all the way to intellectual property, healthcare or real estate. Blockchain brings a promise of a secure, cost-efficient, transparent and easily auditable way to track any asset. Physical goods can be tokenised, traded and tracked through virtual peer-to-peer (P2P) and distributed business networks without requiring a centralised point of control.

## but what is it?

Blockchain is made up of digital hashes or 'blocks' that are then made up of four components; A transaction timestamp, the asset or data transferred, a unique cryptography signature and the hash from the previous transaction. These blocks all interlink into a chain of blocks which then make up the Blockchain, resulting in each transaction being connected to the next.

The way that Blockchain is created means that it is as close to being unhackable as possible. To hack the Blockchain, you'd need to hack the block you're trying to hack, all the preceding blocks in the whole Blockchain, on

every system that is within the blockchain. Not just on one computer, at the same time whilst decrypting the most secure method of encryption on each block.

## why are blockchain and cryptocurrencies a big deal?

Many people have said that Blockchain is the technology likely to have the biggest impact on the next few decades, which is a bold statement given other emerging technologies such as; AI, IoT and Robotics consistently appearing in news headlines.

The reason why people think that Blockchain will have such a big impact on the future is the way that it will have an effect on the Financial Services sector. There are concerns with the current system we use to transfer goods and money, such as security, which is becoming an increasing problem. Current intermediaries like banks, governments and credit card companies are centralised and the current system can be quite slow. It can sometimes take days or weeks for money to be transferred and is highly susceptible to fraud.

Blockchain allows transactions to be stored, moved, made and managed without those intermediaries. Which would theoretically lead to a reduced cost, reduced complexity of financial transactions and improved transparency and regulation on transactions, whilst making transactions almost instantaneous and more secure.

Although Bitcoin is the first thing that comes to mind when Blockchain is mentioned, it could have much more of an impact on other transactions than just currency. Blockchain could be used to transfer any asset with a value including agreements, stocks, shares, intellectual property, music, video and more.

## the technology behind blockchain

Large databases require a lot of compute power. As databases grow over time, they eventually slow down. Blockchain gets around this issue by running on a P2P network of all the computers running the software. This also includes miners who have a vast amount of compute power (some have estimated that the entire computing power of google would be only 5% of the Blockchain computing power) to solve complex cryptographic puzzles in return for new bitcoins.

One of many reasons why enthusiasts are excited by Blockchain is the fact that it runs on a system where data is decentralised. However, this could cause future transaction issues as the processing power for transactions will only increase as the amount of systems on the P2P network do too.

## the future for blockchain

The future of Blockchain may be reliant on governing bodies buying into the system and implementing it in the public sector. It will also be reliant on big tech corporations including Amazon, Microsoft and IBM working together to standardise the Blockchain systems. If all of this happens then we could see a great increase in the speed of transactions, improved security on transactions and a completely new e-monetary system.



**Tobi Miller**  
Service Desk Engineer

# state of the internet

## we're under attack!

Christmas season sees the largest and most profitable traders start to gear up for the biggest sales season of the year. Online marketplaces like Amazon, eBay and AliExpress are looking to strengthen their sales throughout this critical sales period.

In December 2017 the average weekly spend on Internet Retail was £1.1 Billion. A significant amount of transactions, but think about that even further... how much data is transferred during that period? Credit card numbers, address details and personal information, that's a huge amount of data. Up until the past 18-24 months you probably assumed that because a website had a 'Padlock' icon in the address bar, it's secure. Have you ever asked what happens after the website is done with your transaction? What happens when you click 'Order Now'? Where does your data go and is it secure?

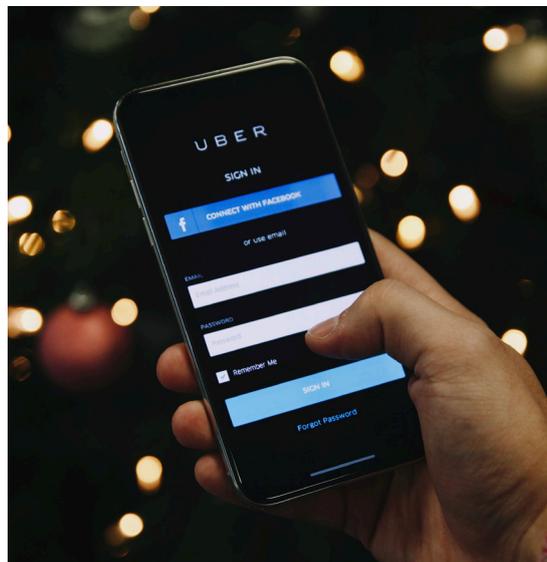
## let's talk about GDPR

The padlock probably made you feel safe and secure as it indicates that you are visiting a genuine website. But what about App security? How do you know an App is secure? The simple answer is that you don't.

Take Uber for example. I love(d) Uber, it made travelling in London easy, I pressed a button in an App and I would be picked up and dropped off in no time without having to pay with any physical cash. However, it was recently revealed that Uber was hacked in October 2016 and attempted to cover it up. Over 57,000,000 records were breached and the company paid hackers to delete them and cover it up as a 'bug bounty'. Imagine what data the hackers may still have and are

not declaring? Your travel history, work and family addresses? All personal information that we hold dear and that has been compromised without public knowledge.

A bug bounty is where tech companies ask hackers to find vulnerabilities within its software/platform in return for a substantial fee. However, as part of the payment they



must sign an agreement ensuring this information is never made public.

Everyone assumes that your data is secure and nobody can access it. This unfortunately isn't the case and it's becoming more of a problem. Rather than a DDoS attacks which are done with the intent of breaking a system and/or service. A Web Application attack is used to exploit a vulnerability in a system. Put simply, this can be compared to someone trying to break through your front door at home.

In the last Quarter of 2017 (July-Sept), more

than 300 million Web Application Attacks were carried out worldwide. To put that into context that equates to 2,240 attacks EVERY MINUTE!

## why should we be concerned?

Surely the people looking after our data, the CISO/CIO's of this world are paid to do this? You would be right that they are but looking at the breakdown of these millions of attacks there is a statistic which is important:

"The No 1 source country for these attacks worldwide was the U.S, and the No 1 target country was the U.S. The number of attacks per target is up by 20% This means that attacks are becoming more persistent." - theguardian.co.uk

Data security is one of the most talked about topics in IT right now and that will always be relevant. When you surf the web, buy your movies on Amazon or order your new boiler on-line, how much data are you giving away and how easy is it to piece it together?

You can't prevent it when it is already broken, however we can advise how to prevent it in the future.

How vulnerable do you think you are?



**Simeon Banks**  
Group Consultancy  
Manager



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workshop two

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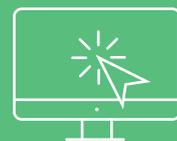
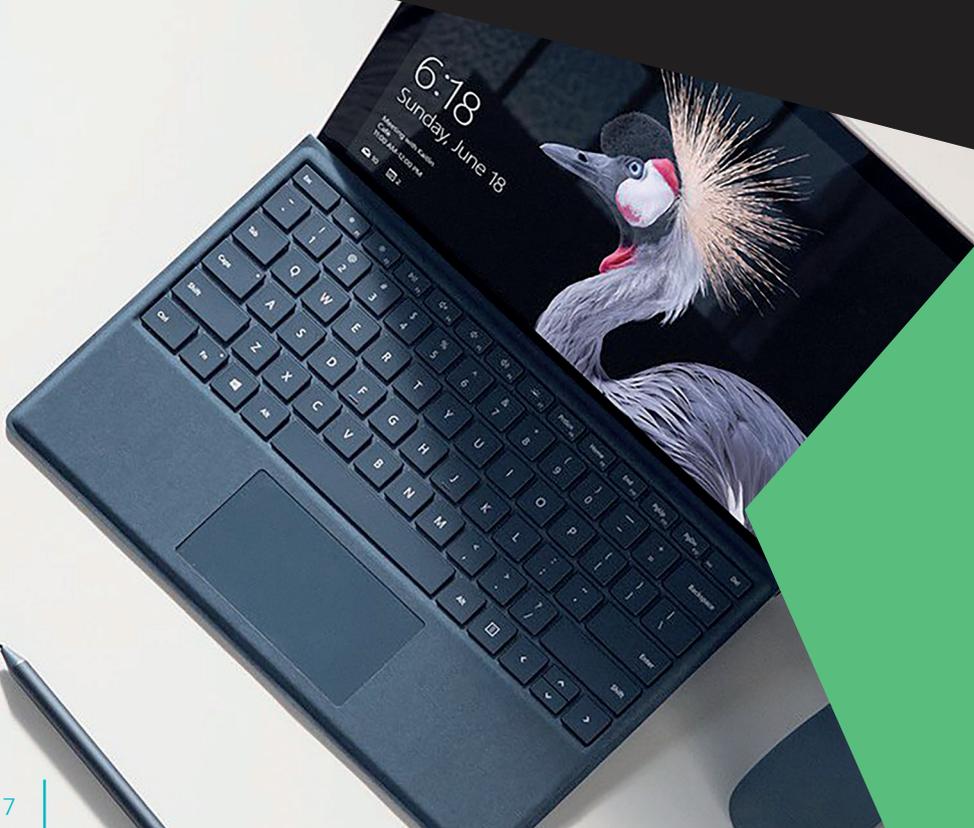
07/03/18

modern workplace

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workshops limited to 10 places

# IT ordering made simple



new webstore  
coming soon



# AI

## in the workplace

Regardless of whether you work in a factory or an office, if you carry out a task that is fundamentally predictable and routine your job might be threatened by a machine. Over the years there has always been this threat from various technologies, but with the latest developments in artificial intelligence (AI), has anything changed?

### progress

Autonomous cars have been in the media spotlight lately, the 2018 Audi A8 offers a glimpse into where the technology is right now and brings level 3 “eyes off” driving automation to the roads. However, this is still a basic level of AI when measured against a cognitive scale.

What if the next step up from the autonomous technology we’re seeing developed today is AI that can learn, react and manage? What jobs could it do? Something as complex and laborious as project management?

### implementation

It appears so. An example of this is a project management package with an AI named Tara. Tara can learn about a project and automatically hire the appropriate resource required to complete specific tasks. It then learns from the people it hires to managing processes including ID verification. But before you go out and replace all your project managers with Tara, it has its limitations.

As packages like this are refined and redeveloped, they will no doubt be able to complete more advanced tasks in the near future.

### adaptation

Certain interfaces are likely to change completely with ever-increasing capabilities and voice recognition. Amazon Alexa, Google Assistant and Siri are invading homes at great pace, but what about businesses? Being able to dictate to something that learns your pronunciation and adapts is nothing new. However, AI could take this to the next level and could be able to offer something that can analyse your output and recommend improvements, rather than call up the required app or a scheduled reminder.

StoryFit is an interesting use of AI for content producers and writers. StoryFit evaluates content and provides a detailed analysis of your work by using storytelling metrics. It’s like having an extremely well-read critic at your fingertips. Audience analytics help identify your target audience and allow you to understand how to engage new markets and grow revenue. Finally, you can understand your market by comparing your content with competitors, identifying top performers.

With tech giants like Apple, Google, Microsoft and the thousands of start-ups investing in AI, it is inevitable that AI will advance and eventually be capable of replicating and enhancing our existing functions. We’re not quite ready for intelligent robots to work for us, but we’re edging closer to a world that is enhanced by the technology.



**Stephen Everiss**  
Group Systems Manager

# driving the future



In 2018 when electric cars are mentioned, most people think of Tesla. Tesla have redefined the automotive industry and continue to disrupt the market with innovations and sustainability driven decisions that are unrivalled amongst its competition. The 'Apple' of the sustainable energy market, Tesla's grasp, style and intuition are driving consumers to think responsibly about energy, emissions and the environment. Most of all, they are redefining what consumers should expect from vehicle manufacturers and this has never been more apparent than now.

## making moves

November 16th, 2017 Tesla held an event tailored towards the announcement of its Semi-truck, a long awaited yet underwhelming announcement for the average consumer. That is until the specifications were revealed. The truck dubbed the 'Semi' is able to reach 0-60 in 5 seconds, faster than many production cars today. Even more impressive is the technology packed into the truck which includes; enhanced autopilot, a 500-mile range, the ability to charge up to a 400-mile range in 30 minutes, two independent screens for customised user interfaces and lastly a drivetrain with a guarantee of 1 million miles.

## why does this matter?

To the average consumer, it doesn't. Most people have no interest in semi-trucks and until now that has been for good reason. Tesla's Semi garners attention because it highlights just how slow the automotive industry has progressed up until this point. With safety equipment that rivals almost all of today's vehicles and an AI technology that can control an entire convoy of trucks autonomously. It's not only defining what's possible but going beyond what is expected in an industry that has stagnated over time.

## one more thing...

Elon Musk, in a similar play to the days of the late Steve Jobs, had a surprise closing announcement. The unexpected reveal of the new Roadster. At £200,000 it's not cheap, so why has it caused a stir? The Roadster will be the most affordable 'Super

Car' available when compared to manufacturers like Bugatti, Ferrari and Lamborghini, but it doesn't end there. The vehicle has shaken up the automotive industry by setting new benchmarks for all production cars to date. 0-60 in 1.9 seconds is unrivalled and beyond the capabilities of any street legal vehicle at present. And with a 600-mile range the Roadster shatters the limitations set by fuel-hungry combustion engine vehicles.

## is electric the answer?

Globally, there are 2 million Electric Vehicles (EV's) on the road, with many more expected to invade motorways over the next few years. Governments across the world are expecting that 30% of the vehicles on the road will be electric by 2030. And with the the UK making plans to ban petrol and diesel car production by 2040 including the incentive of free parking for EV's, the rise of low emissions vehicles is inevitable. But does that mean electricity is the answer?

The rise of electric powered vehicles will inevitably increase power usage across the country and many debate whether our current power plants are capable of handling demand. 10 power plants are proposed to help ensure the UK is prepared for the 'electric revolution' but the question remains, how environmentally friendly is it to build additional power plants and will the environmental costs of both electric and combustion vehicles begin to equalise?

## conclusion

I think that over time electric will become the norm for all vehicles going forward and traditional manufacturers like Ferrari, Rolls Royce and Porsche will all begin to follow suit. Just like how the digital watch changed the market for watches worldwide. The combustion engine cars of today and of the future will face a similar fate. Appreciated for their soul, ingenuity and clockwork rather than their capabilities and specifications. The roadster isn't going to displace super car industry overnight, but it showcases what we can expect from performance vehicles of the future and boosts the innovation in an industry steeped in tradition.

Exciting...

## Tesla Roadster:

- ⚡ 0-60 in 1.9 seconds
- 🚗 620 mile range
- ⚡ 0-100 in 4.2 seconds

## Tesla Semi:

- ⚡ 0-60 in 5 seconds
- 🚗 500 mile range
- 🔋 1 million mile Drivetrain guarantee



Zebby Hussain  
Marketing Assistant

# see you there? june 2018

[pt18.eventbrite.co.uk](http://pt18.eventbrite.co.uk)

pt<sup>18</sup><sub>—</sub>



pureprint

january 2018



# Success story

o | october 2017

## background

John Cotton Group Limited is one of Europe's leading manufacturers of pillows, duvets and mattress protectors, producing more than 20 million pillows and 10 million duvets each year. Established in 1916, John Cotton is a family owned and run manufacturing company and has been trading for over 100 years, in which time it has acquired many awards including; National Bed Federation's Bed Component Supplier of the Year, Asda Supplier of the Year and an MBE. The manufacturing, warehousing and distribution operation spans across the north of England, plus Australia and Poland.

As pioneers in fibre solutions, technology has played an instrumental role to John Cotton's success. As their trusted technology partner for over 6 years – pure technology group has played an important role in supporting John Cotton's IT vision and requirements, working collaboratively over 4 major projects during the partnership.

## challenges

With a new digital strategy in place, John Cotton was looking to significantly upscale their IT infrastructure and security due to their rapidly changing working environment. A robust, multi-tiered IT security strategy is essential in the modern working environment and John Cotton required a solution that would support business continuity and provide increased security, ensuring that systems were not just secure, but available and reliable.

Growing demands from an increasingly mobile workforce required increased flexibility with email and document sharing platforms. An important part of the order-taking process is the ability to receive orders

by email, a more dynamic and flexible way of working would ensure customer service was as responsive as possible. John Cotton historically relied upon an on-premise email system, which meant that if the system were to go down, accessibility to data and orders could be lost.

## solution

The pure technology group offered John Cotton a facility to sit down in a consultative environment, gain a full understanding of requirements, aligned to the vision for the business and then work alongside multiple vendors to form a solution.

As a Microsoft Tier-1 CSP (Cloud Solutions Provider) the pure technology group is able to provide technical expertise and go beyond the transactional sale of Microsoft Cloud products, from best practice solution design, optimal configuration to complete support.

A Microsoft Cloud solution was designed to host all of John Cotton's critical applications such as email and document sharing. Office 365 ensured the mobile workforce are able to use the full Office 365 suite remotely, which means John Cotton staff are able to service customers promptly, answer queries and transact orders on the move – an important part of digital transformation. Office 365 is architected on a global scale to establish resilience and protection of data. It guarantees customer data stays within the UK, with suitable connectivity and continuity of service, through the 365 platform.

The pure technology group's 3-tiered security solution, which comprises; Mimecast (email), Barracuda (firewall) and Bitdefender (end-point protection) was implemented to provide John Cotton with multi-tiered protection against growing IT threats, safe-

guarding attacks from network entry right the way through to end-point.

"Ultimately our customers benefit as we're able to get back to them via email much faster, we're able to answer queries, take orders and service any issues they may have. With our new security strategy and solution in place I'm now confident we can protect against growing Ransomware threats.

Partnerships with businesses such as the pure technology group and Microsoft are important to our business. We've relied heavily on partnerships for the last 100 years and we need to keep these partnerships going. We needed to look to the future, and the future is cloud."

Steve Norton, Group Network Manager, John Cotton Ltd.

## benefits



Increased IT security through a 3-tier solution



Secure data back-up and archiving through the cloud



Improved customers service through mobile platforms

