

the purist

v 9 : july 17

introducing

pt17

Come and join us on September 15th for what is set to be our most exhilarating and innovative event to date

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also
inside...

identity management [p2](#)

We live in an increasingly connected and consumerised world of IT. Social Media, Internet Banking and Online shopping, even wearables from Fitbit or Apple have become accepted as the norm. How do we know our identity is secure?

endpoint shift [p5](#)

It's no secret that desktop computer sales have declined sharply over the last two years. PC sales, which includes desktops and laptop devices, have recently posted an eighth successive quarter fall in sales; what does the future of endpoint technology look like?

azure thing [p9](#)

With 2016's Brexit vote providing a less than stable outlook for the foreseeable future, and the General Election also unable to alleviate concerns. Can Infrastructure as a Service (IaaS) offer long term cost savings whilst improving overall performance?





10 YEARS



20 YEARS

a word from the CEO



Stephen O'Brien

This year, we are celebrating two tremendous milestones...

Pure Data Solutions Limited opened its doors for business 10 years ago!

Servatech Limited opened its doors an amazing 20 years ago!

Both trading companies form the pure technology group.

We are delighted to be marking both milestone anniversaries and will be celebrating with our team, partners and customers over the next 12 months. Keep your eyes and ears open for lots of exceptional offers and prize give-a-ways.

We've seen a lot of change in those years that have flown by - both within our own business and across technology in general - but we all continue to love the challenge and are looking forward to the next chapter on this awesome journey.

I can promise you one thing – the same level of commitment and service that has come to define our business and reputation is unwavering. As a team, it is absolutely paramount that we continue to drive our high expectations and service beliefs.

Thank you to everyone at the pure technology group who has been part of our success, I am truly grateful and appreciate your dedication, loyalty and continued skill.

Finally, a huge thank you to each and every one of our wonderful customers for your continued business, encouragement and support. Without you, well, we wouldn't have a business, and it would all be a bit pointless really!

The journey continues... aspirations are high and we'll continue to strive for bigger and better things. Our commitment to you is continual service improvement. We will strive to be better tomorrow than we were today and we will never let you down. I am truly humbled and proud to lead such a talented bunch of people.

Thank you.

Yours

A handwritten signature of Stephen O'Brien in black ink.

Stephen O'Brien,
CEO

identity management

don't they
know who
I am?

More than ever, we live in an increasingly connected and consumerised world of IT. Social Media, Internet Banking, Online Shopping, even wearables from Fitbit or Apple have become the accepted norm for many of us. We trust that the information we volunteer in order to use the services we come to rely on, is secure and not open to misuse or abuse.

The same is true of customers, partners and employees using your corporate IT systems, whether they are hosted on premise, or in the rapidly evolving cloud of many clouds. Broadly this is what is referred to as Identity Management. It is an administrative area dealing with how to identify individuals in a system and control what resources they can access once the security controls in place have checked that they are who they claim to be.

At a very basic level, identity management is about confirming the identity, then defining what that identity is allowed to do on the network, on which devices and under what circumstances. All this has become ever more complex and even more important with Bring Your Own Device (BYOD) and the mainstream shift to cloud computing – access to your resources anytime, anywhere, on almost any device.

There are several tools for identity management from a number of vendors, but as you might expect it isn't a case of one solution fits all.

There are solutions tailored for on premise, hybrid and full cloud environments.

Some of these are highly customisable, whilst others are more modular in approach.

features to be aware of...

Single Sign-On (SSO) – If your people have more than one set of login credentials to remember, odds are that they will simply write them down, or worse still, write them on a Post-it note stuck to their monitor bezel. If that's the case then your security has greater potential to be compromised – how can you be sure that the person logged in as Jim from accounts, isn't really Sarah from sales, or worse still the guy here for an interview, logging in on his smartphone after seeing the Post-it?

Multi-Factor Authentication (MFA) – Of the three authentication methods: something you know (e.g. password), something you have (e.g. smart card) and something you are (e.g. fingerprint), MFA combines two or more of these to improve security. Think of it like a layered defence, even if one factor is compromised an attacker still has at least one more barrier to get around before successfully breaking into the IT system.

Self-service – It's possible to delegate important tasks such as performing password resets and group management to lower the support burden and reduce management costs.

Automated device on boarding and provisioning – an important factor for BYOD which could lead to an increase in administrative burden and potential security threats. Being able to use pre-defined procedures to automate devices being able to connect to the IT system securely, without requiring human intervention. These

controls help maintain security and reduce the administrative cost at the same time.

Audit logs – if an identity cannot be validated or attempts to access something not authorised, then this suspicious or unusual activity will be logged and can be used to verify the security measures are working properly – something which will become more important with the new GDPR rules from 25th May 2018.

conclusion

Identity management has long been a key function of most well managed IT Systems for companies small or large.

There are benefits including improved security, reduced administration cost, simplified experience, and reduced risk of data breach, loss and litigation penalties.

With growing adoption of BYOD and mainstream increase of Cloud Computing, combined with evolving security threats and new legislation, putting the right Identity management process to work in your environment becomes more important. To find out if your Identity management solution is fit for purpose, drop me an email and I'd be more than happy to talk you through the different solutions.



By Alex McKay
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pt17



what to expect

Technology is constantly evolving and it's getting faster.

This year at pt17, we've outlined several key technology trends that will shape the event, giving our global partners the chance to demonstrate clearly what the next 12 months will look like in the technology landscape - so get ready for some superb content.

And if that wasn't enough, they'll also be bringing along the worlds latest VR, Drone and Automation technologies for break-time activities.

An after party, beginning immediately after the day time activities will run throughout the night. Entertainment, Music and Magic will feature. The bar will be free and the night will be great...again.

automation

The popularity of electric cars has rocketed over the last few years, with around 90,000 plug-in vehicles on the road in 2017.

pt17 will show some of the world's leading brands including **BMW**, **Tesla** and **VW** demonstrating how they are not only revolutionising the vehicles performance and emission-free travel, but also the safety of the next generation of road vehicles through in-car technology.



drones

Until just a few years ago, drones or unmanned aerial vehicles (UAV) were restricted to military use. Today these flying machines are a mass phenomenon. Controlled via smartphones and equipped with high-resolution cameras, they have applications for business as well as personal use. The potential is huge – and is likely to grow at a rapid pace.



At pt17 get your hands on the latest drone technology from the world's leading brands.

vr

By 2018, the total number of active virtual reality users is expected to reach 171 million. Numerous IT companies and start-ups are eager for a piece of the pie and are working on a wide array of solutions.

And indeed, there appear to be no limits on the commercial benefits attached to using VR.

pt17 will feature the latest VR technologies from **HP** and **Microsoft**.



15/09/17

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By James Blackburn
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cloud



Almost 50 percent of companies are using the Cloud – not surprisingly, since the technology not only reduces costs, but also enables ‘working from anywhere’ and is more flexible. Organisations using the Cloud just press a button to roll out the latest software update.

pt17 will give visitors a unique overview of the significant opportunities offered by the Cloud and show how organisations of any size can take advantage of ‘the world of many clouds’.

convergence

IT infrastructure has previously relied on interoperability between network, compute, storage and control but this approach adds complexity and cost.

A converged design can reduce recurring costs for power, cooling and space whilst making support much easier through a ‘single pane of glass’. At pt17 find out more about how future converged technology can achieve simplicity.

IoT



Everything is online: By 2020 some 50 billion devices will be connected – resulting in countless new applications, business ideas and opportunities. Connected devices are appearing everywhere, transforming business models and our daily lives.

Welcome to the IoT era. At pt17 learn more about what the future of ‘smart everything’ will mean to you.

security

“Nearly 6 million cyber and fraud crimes were committed last year in England and Wales” – ONS.

Cyber-security is one of the country’s biggest concerns, and will be one of the technology sectors biggest markets moving into 2017. Cybercrime, the Dark Web, hackers: Illegal attacks on corporate and data networks, are costing billions of pounds. At pt17 discover how our 3-tier security model, backed by leading security products, stops cyber-crime in business from inception all the way through to end-point.



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pt17
see you there...



endpoint:shift



By Cliff Fox
group COO
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It's no secret that desktop computer sales have declined sharply over the last two years. PC sales, which includes desktops and laptop devices, have recently posted an eighth successive quarter fall in sales; an unprecedented period of decline according to recent data published by Gartner.

IDC Research shows that Lenovo was the world's biggest PC and laptop maker in 2016, with 21.7% of the market. HP and Dell occupied second and third place, with market shares of 20.4% and 14.8% respectively but no-one can deny the way we compute has changed. The PC market has been shrinking since 2012 and although 60 million PCs were sold in the first quarter of this year, that's a decline of nearly 10% compared to the same quarter last year including laptop and desktop sales, the latter almost disappearing. Intel recently announced it will lay off one in ten of its workers as a direct result of the declining PC market. This amounts to 12,000 employees in 2017 as the company shifts away from the declining PC market towards the cloud and connected devices.

devices aimed at specific sectors. The hp slice is a small-form factor desktop, reminiscent of the Apple Mac Mini - add a screen and keyboard and go. The conferencing option is a nice twist. The hp Z3 claims to be the world's first mini CAD Workstation, aimed at Architects, Engineers and Design markets. The Spectre X360 is a two-in-one; small form-factor notebook with flip-tablet option. There's never been more endpoint compute options than there is right now...

tablets, smartphones, all-in-ones

The fall of the desktop tower mirrors the fast rise of smartphones and tablets, which is now levelling out. More portable, more practical for most tasks, these devices are now as firmly rooted in business as they are in the consumer market and have forced a re-think on BYOD and business IT spending patterns. Processor speed has got faster, storage has increased and additional screen options means that many portable devices can give a 'near-desktop' experience for most people, apart from gaming.

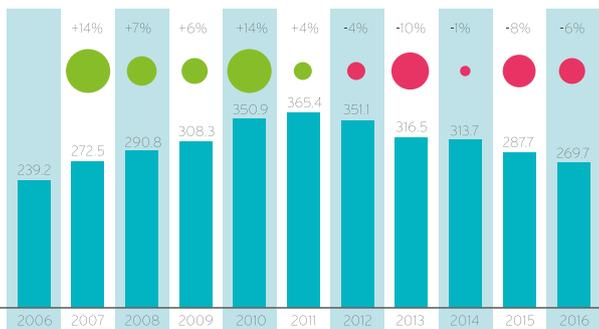
appropriate levels of security too.

This device-agnostic approach allows organisations to re-think their endpoint compute estate. For desk-bound workers a terminal is far more practical and less costly than a desktop PC. Virtualised Desktop Infrastructure (VDI) has come of age and the increase is significant. IDC projects that the VDI market will rise from \$3 billion in 2015 to \$4.6 billion in 2020, an 8.9% compound annual growth rate. A relatively low-cost terminal, some the size of a credit-card, will perform almost all the functions of a desktop computer but there are still some areas; marketing, graphic design and CAD, which have been unsuited to terminal-based computing. Now even this is changing. By hosting graphics-intensive applications in Azure, people benefit from anywhere access to a shared resource. Organisations can benefit from lower costs, as they save money not only by sharing the resource, but by de-allocating the instance when not in use to reduce hourly compute costs.

beyond the smartphone

The biggest thing this year has been the rise of Digital Assistants with voice control - Alexa, Cortana and Siri, all competing to help you... virtually. So, will we replace the crowds of phone zombies with people mumbling into earpieces? Possibly, but rather like Google Glass it depends if you want to wear the tech. Phone screens have got larger but you still need a bigger visual for many aspects of the compute experience, however, this is one part of the technology sector that is hot with innovation, so whether that's display sleeves, AR Glasses or foldable screens, the next decade will probably see another shift in the compute experience.

worldwide PC shipments from 2006 to 2016 (in million units)



source: Gartner

getting niche

Some manufacturers are addressing declining sales partly by getting niche. The Microsoft Surface Studio is designed specifically for the graphic design and print markets but has an eye on the consumer market too. It's probably lower-spec'd than many hoped and it's in short supply too but that will change and an upgraded spec with improved supply may make it a success. The Surface Studio is certainly a design statement and the dial is a great input device. How it fares in the typically Mac market stronghold will be interesting to see.

At the CES show this year hp launched 3

Cloud adoption has taken away storage woes on portable devices and with fast Wi-Fi or 4G (5G soon) it means that people can enjoy a near-LAN experience, wherever they are. This does of course raise security concerns; the traditional network perimeter has moved, or disappeared altogether, but this can be remedied with the right tiered security solutions and has further benefit - reliance on a uniform OS is gone too; I'm writing this article on an iPad, in Microsoft Word, connected to my corporate WAN through Citrix and tiered security. To be fair it doesn't matter what the device or OS is: Windows, Mac OS, Linux, iOS or Android - Citrix works fine with all of them and provides total flexibility with



image: Microsoft Surface Studio



pure**service**

arriving autumn 2017



Q&A

with
Richard Knight

We'd like to congratulate Richard Knight on his recent promotion to the Board as Technical Service Director.

After his appointment we caught up with Richard to get a better understanding of him, his background and what he'll bring to the role.

How long have you worked in the industry?

I've been in IT since 1991, although I have always been a computer nerd since getting my first computer the Tandy TRS80 when I was a child.

Why do you work in this industry?

I'm a nerd, through and through and I like pressing buttons. IT is a great enabler, I like to provide solutions to problems and generally fixing things.

What were your previous roles?

I've done a lot of different things. I started off my career working for National Grid and spent some time working for an American utility company in California. I've taught IT and industry certifications at a High School and was also Assistant Head teacher. I have also previously written the GCSE and A-Level IT question papers for an exam board.

I joined PTG just over 18 months ago, where I started as a Senior Engineer, was promoted to Technical Services Manager, and most recently Director.

What do you think is going to be the most challenging aspect of your new role?

Not trying to fix everything myself. .

Where do you see the pure technology group in 5 years?

At least double in size, with a few more businesses. Keeping our SME roots, but making some inroads into the mid/enterprise

market. Significant development of our Microsoft team with a significant amount of Azure work.

What motivates you?

Seeing results. I like change and I like managing change to make things better.

What impact do you believe you have on people?

I think I'm positive about technology and I think my enthusiasm for it rubs off on other people.

rapid fire

PC or Mac? PC
Spielberg or Scorsese? Spielberg
Cats or dogs? Dogs
Biggie or Tupac? Tupac
Sonic or Mario? Sonic
McDonalds or KFC? McDonalds
Scooby Doo or Danger Mouse? Danger Mouse
IOS, Android or windows phone? Android

Describe yourself in 3 words.

A big nerd.

What's your favourite thing to do on a day off?

Making cider.

Do you have any hobbies?

I've got my pilots license, so I fly when I can.

Name a time you've been challenged in your career and how you overcame it?

Everyday...and still working on it.

What are you looking forward to the most about your new role?

Developing our consultancy as a whole, making people know how great our engineering team is and how we/our customers can make the most of the resource. Another key area I'm excited about is developing our relationship

with Microsoft. We're currently in the process of putting together a Microsoft Virtual Team to help drive our Azure business.

We've also recently restructured our entire service department into smaller teams, allowing them to focus of different areas of service, resulting in a more pro-active way of working. I'm excited to see how effective these new changes in engineering will be, I would like to hear from customers first-hand about their experiences dealing with the new regime of our service.

Anything else you want to add?

Mainly from a customer satisfaction point of view. Ensuring that our customers are getting the service they deserve is important to me. I'd like to invite personal feedback from our customers about both positive and negative experiences, as well as any further suggestions for improvement. You'll have the chance of winning a £25 gift voucher in return for your feedback.

Thanks for that Richard, I never had you down as a Tupac kind of guy! I'd like to wish you all the best in your new role and we're looking forward to the wealth of experience you're going to bring!

You can get in touch with Richard via his email address below:
rich@tptg.co.uk



By Shazaib Hussain
marketing assistant
zebby@tptg.co.uk

Chloe Perks
account manager



Dean Roberts
account manager



James Howcutt
assistant accountant



Paul Nelson
account manager



Jamie Fox
service desk engineer



Adam Bailes
account manager



Marc Pickering
account manager



Stephen Everiss
group technical consultant



Nichola Driver
buyer



Gareth Papworth
solutions architect



Charlie Wilson
solutions specialist



Sharon Pashley
technical services manager

internal promotions



Mark Jones
promoted to
Technical Services Manager



Fin Wightman
promoted to
Technical Services Manager

azure..... thing

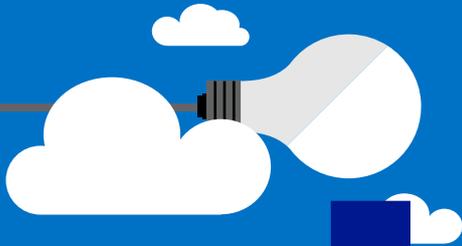


By Stephen Everiss
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With 2016's Brexit vote providing a less than stable outlook for the foreseeable future, and the General Election also unable to alleviate concerns, can Infrastructure as a Service (IaaS) offer long term cost savings whilst improving overall performance?

Infrastructure hardware is expensive to purchase causing many IT Managers and Technical Architects to break out in a sweat when they're asked for a business case to explain why they need to spend so much to replace the old solution. Patching up old slow servers and remembering to swap tapes is all too common when a replacement solution requires a large investment. Adding depreciation and technical expertise to the equation adds further pressures.

In this scenario many choose to increase capacity and virtualise existing hardware, as a cloud platform seems like a black and white decision. This is not the case. Creating a new Virtual Machine (VM) within Microsoft Azure and adding it to your existing infrastructure doesn't require any drastic changes. It is as simple as adding a VM to your network as though it was sat in a box in your server room.



virtual machine & storage

With a hybrid / on-premise Azure solution you can move your workloads to the cloud paying only for what you use. Adding a new Virtual Machine takes only minutes and can be almost instantaneous with the availability of templates to setup VM's to match your specifications. Whether you require massive amounts of processing power or memory, the process is the same thanks to the Azure Portal.

Adding Azure storage is just as simple, there's no need to calculate physical disc capacity then overall storage availability. As you can allocate as much as you need but then only pay for what is used, with people accessing it like any other mapped drive on their desktop. In this scenario we have a VM and associated storage where the costs are only related to the usage of that server and storage. You can then add Azure backup with options such as

locally redundant storage, which will store 3 copies of your data in one datacentre or Globally Redundant Storage (GRS) which will store your data in another Azure datacentre in another region. All that is required to setup the VM, storage and backup is a few clicks. Configuration of the VM is exactly as it would be for any other server on your network, simple right?

disaster recovery

When it comes to Disaster Recovery (DR) Azure can again help us avoid some of the issues we can't legislate for without having to break the bank. With on-premise issues ranging from failure of hardware or a corrupt OS to the building flooding, having a disaster recovery plan is essential. Azure Site Recovery allows you to automatically replicate workloads running on Virtual Machines (VM) or physical servers to Azure with support for many different workloads such as Citrix, Oracle and SAP. With a VM sat waiting in your Azure Recovery Plan you can instantly failover should any situation arise. By having the ability to back up your on-premises hardware to the cloud, including your virtual hosts, you can have the best disaster recovery plan on the market and have your infrastructure ready to go at the flick of a switch in an Azure datacentre.

the human element

So far we have covered VM's, storage, backup and disaster recovery, the foundations of your infrastructure. Whilst we are moving to the cloud what happens to you, the person managing the infrastructure? How do you manage it moving forward? On a core level nothing will change, you will still connect using Remote Desktop Protocol (RDP), you will still update and patch as expected. You can implement time saving improvements like self-service password resets amongst a whole host of other offerings. But overall the biggest change I see will be the convergence of the technical engineer and architect roles. When you have Azure you don't just have an endless pool of compute and storage but also access to highly advanced features normally out of the budget reach for a Small Medium Business (SMB). Services such as Wide Area Network (WAN) optimisation or Power BI analytics can be implemented at a fraction of the typical on-premise cost. Azure offers these services ready to go. Having the ability to build and spec as required you can manage your network much more in depth. If you

need your website to be highly available for Black Friday you can allocate resource and remove the resource to manage the one day when it is required. Or slowly increase the resource as the analytics show that on the run up to Christmas your website is slowing.

infrastructure

Moving onto the more complex areas of networking and security we can take a look at what options are available as you expand and grow. If you have multiple sites and are using Virtual LAN (VLAN) you can still migrate sections into Azure, whether you chose to move a complete entity of your infrastructure or a small section, you can. Creating a VNET within Azure takes seconds, then entering the subnets is just as quick. Once you have setup a VNET with its subnets you can begin to setup Azure Security Groups to control your network traffic. To a very granular level, for example if a VM has two Network Interface Cards (NIC). You can control what goes in and out on each NIC as individual entities.

With the cloud offering excellence in all areas in terms of performance and features it also needs to ensure data is held securely and infrastructure is compliant.

Office 365 takes Exchange online and gives various levels of access to the Office application dependant on your licensing structure. Migrating your existing users to another Exchange server can be daunting but the hybrid structure will enable you to migrate the users over a period of time and then switch the hosted exchange server when you are ready.

conclusion

Overall the transition to Microsoft Azure is not that scary and it is cost effective due to the ease and speed you can setup the infrastructure. It opens up a host of advanced features to budgets that would normally put them out of scope. Investing in upgrades to ageing infrastructure should be seen as burying your head in the sand as the transition to cloud infrastructure is inevitable. In a world of many clouds the time to transition has never been more suitable.

If you have any questions surrounding the Microsoft Azure platform or how it might work with your business feel free to send me an email via steve@tptg.co.uk

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July 2017

success story

background

Established in 1975, Brian Yeardley Continental Limited is now one of the most advanced fleets of international mega trucks and trailers in Europe.

With a portfolio of clients in a variety of industries including chemicals, plastics, automotive parts, textiles and events, the business has grown from strength to strength and in 2015 celebrated its 40th anniversary.

challenges

Brian Yeardley approached the pure technology group after the implementation of a new business strategy, aimed at driving growth over the next 5 years. The strategy included scope to upgrade the entire IT estate, ranging from endpoint replacement, to a full data backup solution and increased network security. Staff needed to work remotely and attend more site visits with customers, but their existing access to company data was limited. IT management as a resource was restricted and hampered by aged equipment requiring constant maintenance. This was causing Brian Yeardley significant costs and was inefficient.

With 90% of businesses throughout the UK experiencing some form of cyber-attack in 2016, hackers are finding new ways to infiltrate business networks daily. Brian Yeardley not only needed to tighten up its IT defences but also implement a solution that

would stay up-to-date and protect it against evolving threats.

solution

The pure technology group worked alongside Brian Yeardley to develop a bespoke security solution that utilised a 3-tier security model, protecting them against e-mail, web and end-point threats. New hardware benefitting from virtualisation was designed to equip Brian Yeardley with a hybrid cloud environment, providing secure remote access for eligible employees to work from anywhere.

With a support contract in place, Brian Yeardley can now operate worry-free. pure technology group service desk and engineers are available to help manage and maintain all of the new equipment installed, granting Brian Yeardley the freedom of a managed IT environment and the time to concentrate on their business.

Extensive testing was carried-out on all hardware and software solutions to eliminate any errors before introducing staff to the new platform.

Training was also provided to ensure that staff were able to use the new line of business applications installed, whilst efficiently migrating their existing data to the cloud. This gave Brian Yeardley the ability to continue its day-to-day operations during this process, ensuring cash and workflow were unaffected.

Kevin Hopper Managing Director at Brian Yeardley, commented:

“The pure technology group allowed us to focus on what we do best, giving us peace of mind and a more efficient way of operating. The company can now feel safe from the threat of cyber-attacks and continue to do business stress-free. I can't thank pure technology group enough for their dedication, developing a solution tailored to our specification and delivered ahead of schedule”

benefits



secure IT environment
using the 3-tier model



remote access
for 30+ people



IT support
reducing staff costs