HARNESSING DATA IN DIGITAL GOVERNMENT

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Harnessing Data in Digital Government

The UK is at the forefront of data innovation. The public sector exists in a time of constant digital change and government departments are focused on securing their data. The challenge comes because most organisations work with a multitude of complex systems in their technology portfolio.

There are also many different messages around digitalisation and cloud computing with no shortage of ambiguous guidance on how to navigate the cloud in government. In order to protect citizen data and deliver excellent public services, government and the public sector must cut through the noise around cloud technology.

As the public sector look to adopt the best cloud solutions for their specific needs, they must also adhere to stringent legislation and compliance. With the evolution of cyber attacks and data breaches, the public sector need top level security. They need to protect citizen data and they must do this as a matter of urgency. In other words, the public sector needs to get on with *IT* and get *IT* right.

Your Data in the Cloud Survey 2016
Manage, Move & Protect

This survey, conducted by GovNewsDirect, highlights the level of perplexity occurring around cloud adoption in the public sector.

Primary concerns/inhibitors to cloud adoption are "data security" followed by "governance risk".

Respondent comments include that concerns are around"…Our lack of understanding around infrastructure" and "Not sure that some cloud providers have adequate credentials - or controls - to safeguard our data"

GETTING *IT* RIGHT

SECTOR BY SECTOR

Central Government

Cloud technology must have multiple offerings

The Government Cloud First policy has stated that public sector organisations should consider cloud solutions first before considering any other option.

There's no one size fits all solution when it comes to the cloud; Government must choose cloud technology with multiple offerings to meet their multiple needs.

The government's legacy systems are hindering development towards true digital transformation and to delivering better public services. In this way, cloud technology is kick starting new ways of working to improve public services for its citizens.

Local Government

Cloud technology must help to reshape local authority services

Councils must rise to the digital challenge, not only to make financial savings but also to improve services to its citizens. They are exploring ways to use technology and data to create more efficient 'smart' cities, to better meet the needs of their local communities.

Local government delivers an estimated 80 per cent of public sector transactions in their areas. They have the responsibility to find cloud technology to supports their services in accessible, economic and 'user-friendly' ways to transform services, moving to self-service and automation where possible.

Data received from the Information Commissioner's Office found that local government has experienced the second highest number of data breach incidents in the last two years, revealing that the sector must adopt the right cloud technology to manage the current lack of control over its sensitive data.

Cloud technology must address the crisis of confidence

The NHS experience many high profile cyber attacks and data breaches leading to a crisis of confidence from the public.

One investigation, being led by the Information Commissioner, is looking into patient records held by 2,700 practices that can be accessed by hundreds of thousands of strangers. The investigation has centred on one of the most popular computer systems used by GPs.

Disaster recovery is also a real concern amongst hospitals, clinics and Trusts and there's been a prevailing story of failing to prepare and preparing to fail. The NHS must gain a better understanding on the role of cloud technology to bring about public trust. They need the support from cloud specialists to better protect patient data to avoid massive breaches, cyber attacks and outages.

Education

Cloud technology must achieve efficiencies for staff and users

There is untapped potential in the education sector yet only around 3% have moved to the cloud. Although digital devices are beneficial to students, real efficiencies need more than the purchasing of laptops and tablets.

The right cloud technology enables the education sector, to quickly scale up and down depending on their current needs. It is not necessary for cloud technology to house its own server to host services and this enables the education sector to transition away from its legacy systems.

This leads to great benefits to staff and students; offering more opportunity to implement new ways of collaboration and teaching as teachers can spend more time on educationally-directed activities, and less on printing, filing, and distributing paper documents. There are also greater efficiencies to be made where staff and students can easily access documentation anytime and anywhere. The right cloud technology can bring about a positive impact on the future of education.

Blue Light & Justice

Cloud technology must modernise the way citizen services are delivered

Police Forces handle and store a vast amount of sensitive data, and it's important that agencies can easily share that data with each other. The right cloud technology can support the blue light and justice sector to move away from physical data sharing like video footage on DVDs, and gain interoperable systems that can access and exchange data seamlessly.

Technology is critical in its role to deliver justice in the UK. Equipping police officers with mobile tablets, establishing court hearings via video link for vulnerable individuals, digital forensics, biometrics and in-cell technology are just some of the ways in which cloud technology is advancing the blue light and justice sector.

The right cloud technology can offer a step change in tackling and preventing crime, responding to emergencies and operating an effective justice system.

Housing Associations

Cloud technology must be citizen focused

The work of housing associations is often hindered by its dependence on out-dated, on-premise IT systems and software. Storing a considerable amount of personal and financial data, such as national insurance numbers, names and addresses, the right cloud technology can address the security issues that are top of the agenda for housing associations.

Cloud technology can help housing associations to simplify costs and operations, therefore moving away from superfluous processes and giving room to focus on improving the tenant experience. It can also connect staff that work 'on the field' and provide a high level of security for housing's technology infrastructure.

Charities

Cloud technology must work for the public good

In today's digital age, it's critical that not-for-profit organisations are not left behind. Essential to human culture, charities and not-for-profit organisations must keep ahead of the fast-paced digital world.

Charities host significant amounts of personal data: from donors' financial details to sensitive data on the people they help and, consequently, there's much apprehension around using technology to house data. The trouble lies in the lack of understanding on how cloud technology can work to help charities address their concerns and challenges. The main issue lies around feeling confident about where their sensitive data is stored.

Security needs to run throughout user systems and networks, and it's as important as ever to ensure that data is properly backed up in ways that meet increasingly tight regulatory requirements.

Not only can cloud technology support charities to become digital by default; the right technology can provide the level of security needed to also help organisations to be greener, reducing energy consumption.

What are the 6 main challenges facing the public sector?

For digital transformation to occur, government and the public sector must find new ways of working to address a myriad of issues. Each sector and each department within that sector is different. However, when considering cloud technology, there are key commonalities that must be addressed.

"In this parliament, we will focus on the following priorities: ...transforming the way that government's major repositories of data are stored and managed"

Cabinet Office, Government Transformation Strategy 2017 to 2020

Data Storage

Cloud solutions must protect citizen data and ensure it is used, stored and gathered appropriately.

Data Security

Cloud solutions must have a strong ability to meet government security and privacy requirements.

Future-Proofed Data

Cloud solution must have the ability to be constantly updated to meet new developments and capabilities.

Disaster Recovery

Cloud solutions must achieve rapid disaster recovery of critical IT systems to ensure all processes can continue with minimal downtime or disruption.

Data Agility

Cloud solutions must be quick to implement and easily integrated to existing infrastructure.

Data Sovereignty

UK-specific datacentres can offer government level assurances for the handling of sensitive data, storage, access and restoration of data within tight compliance and regulations.

Brexit and Government Data – stored on UK soil

A new necessity for the UK public sector

There's a high demand for data to be stored on home turf. A 'UK-only' cloud gives citizens the reassurance of native storage that will make it easier post-Brexit to demonstrate data compliance with any future legislation.

Data held elsewhere is subject to the local jurisdiction that can pose problems with data sovereignty, access and security as data not housed in the UK will be answerable to local law. With data held on UK soil, the public sector gives a reliable way to protect their most sensitive data ahead of the strict global data protection regulations (GDPR).

Data being powered by the OVH cloud is hosted in UK data centres.

THE CLOUD & GDPR
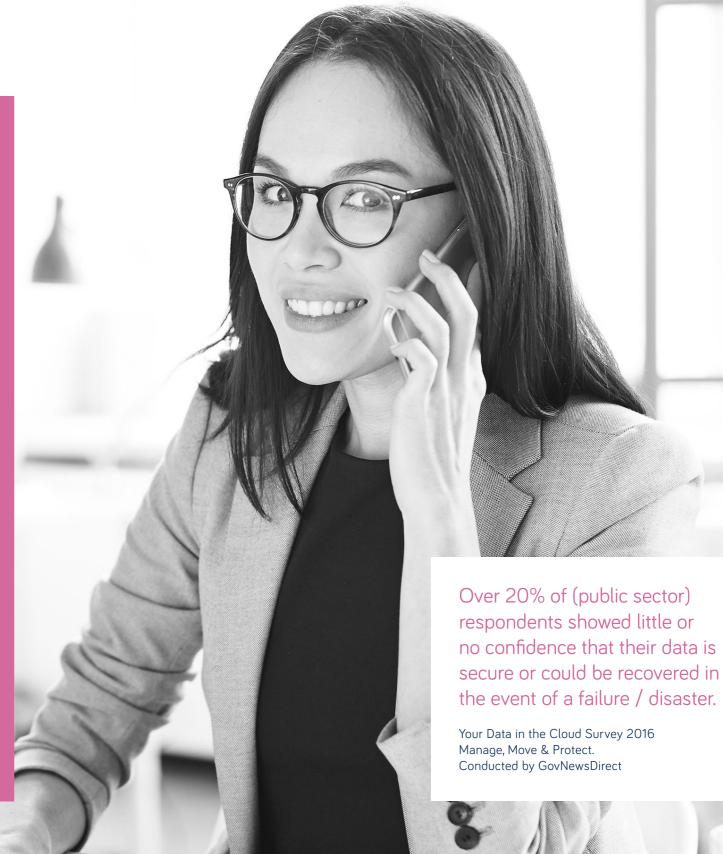
Can cloud technology work in collaboration with GDPR?

The fast approaching GDPR must be seriously taken into account. The public sector must get to grips with their data and know exactly where it is. For most of the public sector, this will require a dramatic overhaul in organising where their data resides.

Government and the public sector must ensure that, when they implement cloud technology, the stipulations of GDPR are addressed. And, as The National Cyber Security Strategy states, the public sector need infrastructure that is underpinned by world-leading technological research and development, infrastructure that builds upon, not removes, public trust.

Over 20% of (public sector) respondents showed little or no confidence that their data is secure or could be recovered in the event of a failure / disaster.

Your Data in the Cloud Survey 2016
Manage, Move & Protect.
Conducted by GovNewsDirect

Infrastructure ready for government and the public sector

When considering cloud technology, it's important to fully evaluate your specific needs. Rather than automatically deciding upon high profile, traditional technology players, consider your operational performance needs, security and compliance needs, support, agility and cost needs.

vCloud® Air™ has recently been acquired by OVH which means the public sector has the opportunity to benefit from robust data centres, high level customer operations, and an government-ready support team.

vCloud® Air™ powered by OVH, is the safest and fastest way to access the public cloud. It enables government and the public sector to accelerate the pace of migration to the cloud, while maintaining security, compliance and control.

OVH benefits from vSphere®, the operating system that underpins vCloud® Air™. This means a strong and deep-seated support from a specialist research and development team.

vCloud® Air™ powered by OVH, offers the public sector high level support from a range of expert teams:

13:21 PM   100%

vCLOUD® AIR™

POWERED

BY OVH

A BITESIZED

BREAKDOWN

13:25 PM   100%

vCloud® Air™ is government-ready, giving the public sector the flexibility to run applications wherever they like across their IT infrastructure, with the reassurance that all data information remains in the UK and adheres to sovereignty laws.

vCloud® Air™ helps speed time-to-market by offering the most compatible platform for your existing applications and networking design. vCloud® Air™ is the only public cloud platform that comes pre-integrated with your existing environment, allowing you to write, deploy, and manage applications in the cloud.

14:23 PM   100%

OVH are a green IT team

OVH has been committed to reducing energy consumption in their datacentres, designing an exclusive liquid server cooling system. As a hosting provider, OVH invents new ways of reducing the quantity of electricity needed to run its datacentres. This keeps the cost of powering the servers down and the savings can be passed on to the customers.

With vCloud® Air™, the public sector can increase efficiency while lowering their costs. And what's more, the data and applications being powered by the OVH cloud is hosted in UK data centres, so, unlike with other public clouds, public sector organisations will always know where their data is being held – within UK borders.

14:02 PM   100%

vCloud® Air™ enables the public sector to keep business-critical applications in-house and also take advantage of the enormous scalability of public clouds securely, without having to invest in new tools, skills or underused on-premises capacity.

vCloud® Air™ offers scalability, allowing organisations to add or reduce capacity as required, ensuring they're only paying only for the storage they use, rather than paying for more than they need.

15:56 PM   100%

Security with vCloud® Air™

OVH has been in the media due to DDoS attacks (Distributed Denial of Service attack) whose goal was to make a service unavailable. In this case, the target of the attack wasn't OVH but on websites belonging to customers hosted by OVH.

OVH have developed a system called*VAC which is a combination of technologies developed created to mitigate DDoS attacks. The VAC consists of multiple devices, each with a specific function to block one or more types of attack (DDoS, Flood, etc.). Depending on the attack, one or more defence strategies may be put in place on each VAC device.

OVH successfully blocked this DDoS attack, whereby, one of the largest and high profile cloud suppliers, failed to. For more information, read here.

ASTON UNIVERSITY

A CASE STUDY

vCloud® Air™ to power
Aston University's DRaaS Strategy

As part of their Vision 2020 Strategy, Aston is transforming the way in which it delivers its services to its customers. This is to support an increase in both the student numbers and to deliver a first-class student experience to its customers.

Having selected vSAN to support its storage strategy the University needed a complementary solution to enable them to improve the current disaster recovery posture whilst staying cost neutral. The solution required an agile and scalable infrastructure to support future projects.

The Customer

Aston University is in the top 20 of UK universities for graduate employability. With many changes in the Higher Education sector, their 2020 Strategy focuses on how they can deliver a first rate student experience to allow students to acquire the skills, confidence and knowledge for Industry and Business. The core vision for the University was that Aston will have an international reputation for developing people that will produce the ideas that will shape the businesses and communities of tomorrow.

Any viable solution had to deliver on:

- How do I improve my Risk posture around DR?
- How can I not let IT infrastructure be a limiting factor for delivering projects?
- Can this be delivered within the current cost envelope?
- Can the solution be supported by the skill-sets of the IT team?

Solution

Work started with Aston in July 2016 when they were trying to establish which cloud solution was right for them. They wanted to move some services, such as DNS, DR and the ability to spin-up projects on-demand and migrate them in and out of the cloud and on premise.

The solution chosen was the vCloud® Air™ Enterprise DRaaS. This enables Aston University to do full and/or partial failover of critical workloads. This also gives Aston University the capability to burst into the cloud, allowing IT to instantaneously deliver projects and move back on premise if desired.

OVH adding value to Aston University

Hybrid Cloud DR delivered by vCloud® Air™ will enable Aston University to focus its resources on delivering their 2020 vision by relying on an Enterprise class DR solution.

vCLOUD® AIR™

POWERED BY OVH

Helping government move to the cloud with confidence

The digital economy is evolving fast, and public sector departments must rapidly innovate, meeting citizen needs and delivering superior customer service.

The data centre is becoming the foundation of building a more agile business, and vCloud® Air™ powered by OVH, can support government departments to move forward in confidence towards digital transformation, driving innovation and growth.

Open up new possibilities for all of your government data. Take advantage of the digital transformation that vCloud® Air™ can support your department with.

Email sam.howard@corp.ovh.us to discuss your specific needs today.

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OVH
Innovation is Freedom

OVH is a global, hyper-scale cloud provider that offers businesses industry-leading performance and value. Vertically integrated to own its network, server technology and green data centres, OVH operates more cost effectively and passes these benefits back to customers. Controlling each step in the global solution allows OVH to provide the best performance, price, security, and customer service in the industry. OVH is the largest European hosting provider, with more than one million customers across 138 countries and four continents. The OVH global network includes 26 data centres, 32 points of presence, and thousands of miles of dark fibre.

This paper was built in partnership with GovNewsDirect. GovNewsDirect specialise in facilitating innovative and engaging partnerships between the private and public sector.

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