

A Head in the Clouds

Gearing up for a Cloud Strategy, Laura Dawson & Michael Durso

Introduction

It has only been in the last 5 years that the public cloud has become a truly viable solution for storage and computer power for businesses including charities in the UK. In fact I would argue that it is the only sensible option for many organisations. Instead of the question being “What can we put in the cloud?” perhaps the question needs to be “What can be retained on site?”. I hopefully set out with the help of some sage friends and colleagues a few pointers on your cloud journey.

Why Cloud now... “Allow yourself the space to focus on your core business differentiators rather than waste time on plumbing servers and storage”

Danny Attias, Anthony Nolan

Why the change?

The big change more than anything else is the arrival in a meaningful way of Amazon Web Services (AWS). We have had Azure for a while, but AWS has driven competition with a viable offering and a well-orchestrated marketing campaign. Through that competition, both platforms have made themselves far more accessible and at the same time more ‘enterprise-class’. In both cases the security posture on cloud adopted by ‘those we watch to see if they blink first’¹ has given many organisations the licence to look at it more fully. Especially with the stamp of approval for NHS data that came in January 2018 from the Department of Health.

The Business Case

There are a few key things I want to touch on here. There are loads of bits of advice out there and much of it very good. These are my tips for crafting the business case. Key point is it is very hard to make the case for cloud based on cost alone, you have to include the operational and risk reduction benefits ... which, incidentally, can be translated into cost too (with a bit more work).

Moving to cloud ... “ensures your technology platforms remain aligned with the organisation, throughout the year, allowing it to breathe in and out, and respond quickly to support strategic change.”

Bill Griggs, The Children’s Society

1. It’s not like for like. If you compare the cost of what you do now to the cost of moving to the cloud, I can pretty much guarantee that it will scare you and your Finance Director silly. BUT you would not be comparing ‘apples with apples’. Gaining a

good understanding of what your desired “To Be” state is and then costing that as if you were doing it internally, will give you a more reasonable benchmark to then compare you cloud provider. This is also linked to the next point.....

¹ Mostly government, if the Met Police are using cloud, what on earth would be our excuse not to?

2. Don't outsource a mess. An old truism but it still holds. If you were to move everything you have, as it is now then you won't see any financial benefits². So the need to cull unused services and optimise your storage is essential. If you are moving in haste then there is a chance you will outsource things you haven't optimised. Think about what you have to do when you move house... and yes it is that painful.
3. Don't underestimate the cost (and development cost) of in house resources. It is becoming increasingly hard to compete for resources and the cost of development and risk when you do it internally should be a factor.
4. AND don't underestimate the cost of people change. At a recent AWS Transformation Conference, people and process were cited frequently as being the most important and most complicated aspects of the change. That is definitely not free.
5. Consider how cloud can support your desire for pace, how quickly can you deploy change now and what is your cost of rework? It's not just about money here although that is at the back of it. It is also about showing how pace of deployment can be improved. Again that comes from optimising as well as setting up defined services and standards.

Critical Success Factors

There are a number of key things that need to be in place in order for a move to the cloud to be less vulnerable to turbulence.

- Set a target and vision. Mine is 100% of compute and storage will either be managed service or public cloud by July 2022. If you want to be granular about it, consider targets for the different types of cloud services e.g. applications, platform, integration and new services.
- Vendor Management Skills
- Engagement with the users of storage and compute. You need to stay connected, work together with and educate people who are consuming the service. Otherwise you will create a wild west, but one with no limit and a lot of cost.

"Focusing on cloud now allows you to remove the worry about staying evergreen, keeping up to date is now part of the deal"

Jane Deal, The Law Society

- Changes to your procurement rules. Cloud Storage is not a capital expenditure, it is OpEx and many procurement specialists will want to treat OpEx as something that is retendered regularly. This does not work so well with Cloud Storage and Compute. The cost of switching is still high and wise CIOs will draw those models out with Procurement and agree a way of ensuring value for money up front. It doesn't have to

be a retender, it can be value for money audits which, if conducted by a trusted third party can deliver real savings and insight without the cost of switching But you have to listen to them.

- Billing processes and charging agreed up front. Is it a central resource that you are going to pay for from the technology budget or are you going to recharge or charge direct? If you have separate entities in your charity you may want to think about how you structure the invoicing quite quickly.

² Equally if you leave it as it is internally and pursue that strategy then you will also incur costs because you won't have a chance to make good use of what you already have.

- Finally, but probably most importantly, think about the implication on existing systems teams. It is not unusual for people in those teams to be suspicious and / or nervous of cloud. This can be because it's a huge change to their roles, but also they are the people responsible for delivering these services

Some More Words of Wisdom....

“Plan ahead for future ‘tin’ refreshes. Get cloud up and running early and test an application while you still have time left for your tin to depreciate.”

Matt Jago, SightSavers

“Organisations like Comic Relief, where a sudden spurt of demand on Red Nose Day require rapid capacity flex and this may be your driver.”

Jane Deal, The Law Society

A vision for cloud and DevOps

“Have a vision for cloud and possibly DevOps – set a target and then work on how you are going to get there.”

Laura Dawson, LSE

The Vision for DevOps, Agile & the Cloud

To professionalise our delivery, adoption and utilisation of information technology services and solutions to customer facing and group facing customers and users, we will implement and exploit fully new methods, behaviours / culture, tools and processes that will simplify and rapidly deliver solutions which deliver benefits based on customer need with improved reliability and resilience, at pace. We will need a culture where principles based design can thrive and trust is continually strengthened. Where we do fail, we fail fast and learn from it.

Objectives	Guiding Principles	Measures
<ol style="list-style-type: none"> 1. Develop training to transition staff to cloud and DevOps roles 2. Lead staff transition process and create empowered, fit for purpose, service focused culture 3. Implement application design and deployment behaviours and culture to maximise consistency, quality and reliability 4. Migrate existing app workloads with a goal of <u>all existing</u> compute from on-premise to cloud 5. Establish operational toolsets , appropriate automation and processes to ensure operational effectiveness, awareness and partnership with service teams 6. Embed application development capability in service teams 	<ul style="list-style-type: none"> • We are committed to staff growth and development as we pursue the goals of this programme • We ensure close collaboration between this programme, business colleagues and the rest of GIS to maintain high levels of existing services • Improving deployment methods and behaviours is as important as the tools we use • Consistent architecture and design is critical to achieving professional and enterprise class technology services • Communicating with colleagues in British Council, Customers and partners is essential to this being successful • We will deal with counter cultural behaviour and not just side-line it 	<ul style="list-style-type: none"> • Percentage of GIS staff who have successfully completed the developed training. • Percentage compute transitioned to cloud • Improved availability from monitoring (uptime goals set) • Successful Disaster Recovery testing processes in place – average time to recovery for migrated applications • Percentage rollbacks • Frequency of deployments • Mean time to deploy • Cost of deployment solutions compared to onsite activity pre tools. • Number of staff working on release activity versus change activity • Link to and quality assess benefit to British Council key targets