Overcoming cloud barriers in the Public Sector

Executive Summary

Microsoft partners with public sector organisations around the world to guide their digital transformation strategies towards new operating models, new efficiencies, and greater innovation.

We recently spoke with five of our Public Sector Azure customers, including police forces, local councils and hospitals, to understand how they overcame the challenges surrounding cloud adoption in the public sector.

Public Sector organisations need to:

• See cloud as the right way to do IT
• Find savings in other parts of the IT budget to move to the cloud
• Highlight the benefits of the cloud, such as removing the risks of continuing with an on-prem environment, e.g., the WannaCry ransomware attack
• Demonstrate that the CAPEX saved could be spent on real world projects that affect the community
• Accept where the world is going in terms of consumption-based pricing
• Educate board members, public sector cloud transformation relies on building better relationships between IT and other stakeholders.
Barriers vs benefits for public cloud adoption

The enterprise world is experiencing an ongoing shift from CAPEX to OPEX within IT, where subscription models are presenting vast financial and operational advantages. However, due to a multitude of factors, ranging from complex regulatory frameworks to legacy budgeting constraints, the problem of transformational inertia at public sector organisations can be particularly prevalent when addressing the move to cloud operating models.

There is no shortage of success stories from across the public sector, detailing the long-term cost savings made possible from the migration to public or hybrid cloud. The issue lies in translating the advocacy for migration across key stakeholders within these organisations; particularly when presenting the revenue-based financial expenditure for public cloud frameworks.

Security — addressing the misconceptions

Due to the nature of their remits and the sensitive data they collect, process and store, public sector organisations have a wide range of prerequisites for the security of their operations. However, thanks in part to the adoption of cloud in the private sector, the old misconceptions surrounding the security of the cloud verses on-prem infrastructure are not restricting public sector decision makers anymore.

Take healthcare, for example. Two of our interviewees confirmed that public cloud adoption standards being set by the private sector are becoming increasingly important for inspiring trust across the public sector.

“It’s about informing the execs and the non-execs why we’re moving to the cloud, what it looks like, if there are any security implications, being honest and upfront about it” says David Elliott from Northumbria Healthcare NHS

“A lot of the banks are starting to use it, we’ve got some big private sector companies that are willing to put their data in the cloud and ultimately if it goes wrong for them it’s financial ruin”.

Aaran Clark from the Frimley Health NHS Foundation Trust echoes this: “If you look at the wider private sector, they’ve tended to move to the cloud pretty much wholesale over the years. And if you think the financial sector where you’ve got security and personal information, if they’ve signed up to it, then I don’t really see that the NHS should be very different.”

Alleviating security concerns also rests with the ongoing proactive advocacy that Microsoft offers its customers surrounding cloud security.
“Our Information Security and Information Governance teams have been alleviated by discussions with Microsoft Chief Security Officers who have given assurances around the performance and security of Azure,” says Mike Weston, Assistant Director ICT at Sheffield City Council.

The importance of internal testing of Azure is a fundamental way that our customers are able to instil the values of cloud migration.

“We had the Azure environment tested and had the best pen test result the force has ever had — by a country mile” says Carl Walker, Lead Architect at City of London Police. “We had just a few remediations needed, and in comparison to our annual IT health check, it was like looking at two different organisations.”

It’s essential to deliver perspective on security and risk between on-prem infrastructure and migration to public cloud environment, as David Elliott points out:

“The risks of not doing something are equally as bad as the risk of doing something, so it’s important to complete a risk register, making sure the board are aware that if you continue with on-prem then you’ve got all of these other risks that are still not going to go away. We had an air con failure last month that caused thermal shutdown of loads of our servers — that wouldn’t have happened in the Azure data centres.”

From **CAPEX** to **OPEX** — the issue of long-term cost

The traditional model of public sector IT procurement has been likened to receiving a pot of gold every five years, with the expectation that this will cover all large infrastructure purchases for that period.

Today, while public cloud has replaced the need for this siloed investment scheduling, it can be difficult to alleviate stakeholder fears of spiralling costs.

But as Stewart Hall, Head of Infrastructure & Platforms at Buckinghamshire Council says, “They tell me that my Dell servers or my HP servers are an asset, but after 6 or 7 years of use they become another form of legacy infrastructure that requires decommissioning and replacing”

Across all our interviews, demonstrating cost savings was the critical thread that is required to prove the value of a move from CAPEX to OPEX. And that includes savings on infrastructure in 5 years’ time.

“Our modelling shows it’s fairly cost neutral, there’ll be some savings in terms of run but guess what in 5 years you won’t be spending another million pounds on a load of on prem tin again” says Jonathan Chapman, Head of IT at City of London Police. “It saves you £5 million over five years in another capital cycle. Now, surely you can see the common sense in that.”

Indeed, the IaaS costs for City of London Police have reduced from £109k p/m to £41k p/m currently, which demonstrates the value of a move from CAPEX to OPEX.

Mike Weston at Sheffield City Council noted that these savings can in turn be spent on front line projects:

“We demonstrated that if we moved to the cloud and didn’t spend CAPEX, and CAPEX was going to be spent on real world projects that affect the community and not the back end of IT, that we could still move to a revenue model and deliver savings. And we’re on course to do that.”
“Local government business isn’t in data centres, it’s in delivering services to the public,” says Mike Weston.

“We were either going to invest in a new datacentre or go to the cloud — it’s a no brainer for me”.

Thanks to the diverse Microsoft partner ecosystem, public sector organisations have access to a wealth of third-party consultants that are certified by Microsoft. This allows IT departments to facilitate ongoing cloud migration that helps alleviate stakeholder trepidation about unexpected costs, as Stewart Hall from Buckinghamshire Council notes:

“There are a lot of benefits with a gold partner coming in and working with us, we’re new to Azure, we’re new to its performance and capabilities. So, to have somebody who’s a tried and trusted partner to come in for one year, this helps us get it right; then they go off and leave us with the keys to the castle.”

Our interviewees also expressed the importance of both building confidence amongst your team and establishing control over their new infrastructures. As David Elliott pointed out:

“It’s down to my architecture team to make sure that spend doesn’t go amiss, and if it does go amiss then we need to get back on track. By using all the tools natively in Azure to be able to manage your spend, you’ve just got to make sure somebody’s on top of it and somebody’s looking after it.”

There are plenty of new and better opportunities for the inhouse team in a cloud environment, as Aaran Clark commented:

“I don’t want teams of people on site keeping the lights on, other people can do that far better than we can through the cloud. I want my Server Team to be repurposed to add real value to the business in terms of digital transformation”. 

Making full use of a Microsoft partnership

Because Microsoft works across the public sector to provide cloud solutions, we bring a wealth of experience that is ideally suited to help organisations manage their digital transformation strategies.
Building a business case — practical advice for your organisation

Summarising all five of our interviews, here is a recipe for overcoming the barriers to moving to the cloud in the public sector.

1. **See cloud as the right way to do IT**

As Stewart at Buckinghamshire County Council says,

"The starting point for us was that we saw cloud as the better way of working — we wanted to get it done, so we had to find savings in other parts of the IT budget to fund it."

This viewpoint is backed up by Aaran Clark:

"The way we presented it, the total cost of ownership over 5 years, we were making a significant saving."

"With a limited upfront capital budget and an ongoing revenue budget, we could still make cost efficiencies and savings across the piece by cancelling the annual support and maintenance contracts on our current hardware. The way we presented it, the total cost of ownership over 5 years, we were making a significant saving."

This is backed up by David Elliott, CIO at Northumbria Healthcare NHS:

"Before I started, we were hit really badly by WannaCry. The overall investment in IT was really poor so it highlighted the risks of continuing with an on-prem environment. At every opportunity it’s highlighting the failures that were happening."

2. **The criticality of demonstrating cost savings**

"Make sure that all of your existing costs add up"

says David Elliott. "So, what are you doing in terms of removal of power from those server rooms — space which is a premium in hospitals. The removal of the server rooms is quite a big thing for us. There were cost benefits to all of that, including tin replacement and support contracts going off, so we factored all of that in with our initial move."

3. **Understand that moving to cloud makes sense to elected members**

"The finance people were a bit nervous about moving from CAPEX to OPEX, notes Mike Weston at Sheffield City Council. "But there is a political will to stop outsourcing, and the demand to stop outsourcing meant that we had to go to a CAPEX model and go to the cloud or we had to spend x million pounds building our own new infrastructure. And that wasn’t palatable to elected members at all."
Tony Ellis, Service Director at Buckinghamshire County Council says,

“There are some hidden benefits we haven’t thought about, like the carbon savings. We went straight on to the calculator and found 728 tonnes per year — the equivalent of a million car miles.”

And Aaran Clark, the CIO at Frimley Hospital, explained the importance of bringing the decision back to your organisation’s strategy:

“Now you either play lip service to digital transformation or you get on and do it.”

“The Chief Exec said this to me, and he did apologise afterwards, but he said, ‘Aaran, why should I give you this money when I could go and buy two wards?’ But ultimately, we have a Trust Strategy that has six streams, and one of those streams is advancing our capability. Now you either play lip service to digital transformation or you get on and do it.”

4. Accept the shift to subscription-based pricing

“He then goes on to say, ‘It’s a bit scary at first but I know for a fact, when I go in front of the board, they don’t mind the capital investment but if the revenue side of things shows an increase, you’ll see, their noses will curl. But if you show that you are making some savings and making some efficiencies in reducing the OPEX, they’re actually quite happy about it all.”

Educating board members

Public sector cloud transformation relies on building better relationships between IT and other organisational stakeholders, as David Elliott points out:

“Every two months we have an IM&T board that talks about the Azure journey, and the spend, and what it looks like from a Capital vs Revenue point of view. If we see any deviations in that, we bring it to their attention and say, ‘This is what’s happened on the journey, this is why, but look at what you’ve got in terms of reduced on prem costs’... It’s about having those relationships — I’ve got a really good relationship with the FD.”

Aaran Clark validates David’s point:

“It really is about socialising at board level the benefits of all the things that we’re doing around digital transformation.”
In summary, Aaran Clark at Frimley Health NHS Foundation Trust gave us a great statement that encapsulates the spirit of this paper. In order to demystify and overcome the barriers in moving to the cloud, he “gave up referring to it as the cloud a long time ago. It’s basically someone else’s datacentre and it’s a lot more secure than anything we can ever provide, and over time is far cheaper.”

Find out more about the authors

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Aaron leads on the Microsoft Central Government Teams response to the Public Sector tech agendas. He joined Microsoft two years ago following a 25-year career across Central and Local Government focusing on Tech Strategy and Accessibility, including being a co-writer of the Equality Act 2006/2010, the Public Sector Equality Duty and translating PSBAR 2018 into the UK. Outside of his day job, Aaron chairs a number of Accessibility Groups and

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Find out more

To find out more about how Microsoft is working across the public sector to build agile, secure, cost effective cloud migration, please contact your Microsoft Account Manager.