









Cloud Strategy and transformation for Policing

GCloud Service Description

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1 Cloud Strategy and Transformation for Policing

1.1 Short Service Description

PA's Cloud Strategy for Policing helps Law Enforcement to navigate the complexities of Home Office / Policing capabilities, Programmes and Local Forces cloud usage through deep sector insight coupled with extensive Cloud expertise, driving strategic coherence across a complex multi-stakeholder landscape to improve value for money for HMG and citizens.

1.2 Key Service Features

- 1. Current application and infrastructure landscape and initial roadmap assessments
- 2. Assess Policing's cloud maturity and readiness for adoption
- 3. Knowledge of key programmes: NLEP / DLRP / NLEDS
- 4. Engagement with stakeholders: HO, Forces, NPCC, PDS, HMCTS, NCA
- 5. Understanding of key systems: PNC, PND, RMS, C&C
- 6. Leverage PA's unbiased partnerships with Google, Microsoft and AWS
- 7. Utilise insights from previous cloud adoption experiences across HMG
- 8. Analyse the commercial implications with pre-built cost models
- 9. Understand complexities of data, security, legal and operational challenges
- 10. Deliver pragmatic transformation designed for HMG and policing requirements

1.3 Key Service Benefits

- 1. Rapidly define an achievable cloud strategy for policing
- 2. Practical, clear steps to successful cloud adoption / transformation
- 3. Insights based on experience to avoid common pitfalls
- 4. Up-to-date cloud market expertise and knowledge
- 5. Access to market leaders based on PA's partner status
- 6. Commercially aware recommendations for cost effective adoption
- 7. Considers operating model and wider implications, not simply technology
- 8. Considers full IT context, assessing existing assets and lifecycles
- 9. Cloud security as part of up-front strategic considerations
- 10. Strategy and transformation advice driven by policing objectives

1.4 Service Definition

The deployment of Cloud technologies is a key component of the Home Office and Policing's technology strategy at Force, Programme and National levels. It is critical that across this landscape, Cloud strategy and any subsequent transformation is grounded in a long-term view that ensures Policing and HMG is making conscious, cost efficient and effective strategic decisions.

Our Policing experts understand the complexities of the policing landscape and we are involved in programmes across Policing and policing partners who face similar challenges.

Our expert technical advice will help HMG to consider and deliver cloud usage transformation that is secure, affordable, flexible and supports operational requirements.

Other considerations include; IaaS, PaaS and SaaS, non-functional requirements, security and operational impact, legacy technology, legislative and data constraints, regulatory constraints, business case and governance.

Few areas of policing are fully able to utilise cloud to best effect or to a position where they can be 100% on cloud. For this reason, a hybrid approach – the hybrid cloud – may also required for the foreseeable future. The relative proportion of systems on the different cloud models will change over time; as applications are reengineered and technology improves there will be an increase in the number of systems running on cloud.

We offer insights that will help HMG to drive better value for money and more effective, long term technology solutions.

We offer transformation that considers people, processes, operational impact, policy, funding and governance to deliver successful public sector change.

Cloud strategy development approach

Our methodology entails understanding the commercial cloud service options that are available to meet business requirements, then assessing these for cost and performance benefits whilst at the same time taking care to understand and agree the levels of applicable risk (e.g. data regulatory) that might apply to each system and geography.

Built into our approach is an ongoing consultation with key technical and business stakeholders to ensure that the recommended approach is realistically viable within the operating environment of our clients.

Central to the PA approach is a structured assessment of each application against the constraints that exist to inhibit adoption of the highest, and potentially most beneficial, level of cloud abstraction (Software as a Service). The following table summarises the options:

Migration approach	Description	Relative complexity
Replace	Replace the current application and associated infrastructure with a SaaS-based alternative. Business change impacts can be significant in some instances (e.g. a move to SaaS-based HR).	High - Medium
Re-architect	Re-architecting the application to optimize for cloud hosting, using laaS and/or PaaS. Leverage cloud capabilities such as containers and micro-services, auto scaling, fault tolerance and potentially emerging PaaS offerings such as serverless compute.	Very high
Re-platform	Standardise applications to a commodity laaS platform during migration to address required upgrades, compliance, regulatory or simplicity drivers. Use the opportunity to optimize for cloud where possible. This approach is suitable for moves to public or private laaS and ensures alignment to hosting provider standards and hence coverage by standard SLAs.	High - Medium

Migration approach	Description	Relative complexity
Re-host	Take the 'lift and shift' approach to quickly move your current virtualised infrastructure to private laaS. May be incompatible with cloud provider service catalogue and hence SLA's may not be as favourable, or even applicable.	Medium
Retain	Do nothing, simply move your current physical or virtualised infrastructure (and associated applications) to a new hosting facility in a 'traditional' managed hosting arrangement.	Medium - Low
Retire	Where there is no ongoing strategic or critical need for the application, remove it from the estate to simplify and avoid build-up of technical debt.	Low

The constraints that should be considered will be a mixture of commercial, technical, regulatory and cost. Their impact will vary according to business function, operating geography and regulatory factors. The following figure demonstrates how the options outlined in the table above can be assessed against these constraints as part of a Cloud Strategy development.

Example cloud decision tree



1.5 Why PA?

PA Consulting Group (PA) is a leading IT consultancy and one of the largest advisors to the UK government. We work as a trusted partner to help the UK Government apply an assured cloud delivery approach when developing their most complex information systems and cloud solutions. PA is well placed to work with clients to help assess readiness, design, build, deliver, and test, to take advantage of cloud solutions. We will bring:

- Leading experience in identifying the costs and complexity drivers for moving existing or new IT services to cloud environments.
- Experience and knowledge to challenge the client organisation to ensure the key stakeholders are aligned ahead of the move to a Cloud solution.
- Access to the latest cloud vendor migration developments, ensuring a best-in-class approach, based on our work with major clients in both the public and private sector in the UK and overseas.

• Experience supporting cloud, in-house and hybrid systems side-by-side

More specifically we will bring:

Ideation & Strategy:

- Cloud strategy and advisory services
- Assessment of cloud readiness
- Cost-benefit analysis and ROI modelling
- Security and compliance assessment

Design & Architecture:

- Custom cloud architecture design
- Integration with existing IT infrastructure
- Multi-cloud and hybrid cloud solutions
- Disaster recovery and business continuity planning
- Robust solution delivery meeting GDS best practice and ISO27001

Development & Deployment:

- Cloud-native application development
- Containerization and microservices & serverless architecture
- DevOps practices and CI/CD pipeline setup
- Automated testing and quality assurance

Implementation & Migration:

- Data migration to the cloud
- Legacy application modernization
- Cloud service provider selection and management
- Implementation of Infrastructure as Code (IaC)

Operations & Management:

- Continuous monitoring and incident
 management
- Performance optimization and cost management
- Backup and restore operations.
- User training and change management.

Innovation & Scaling:

- Scalable infrastructure to support growth.
- Implementation of AI and machine learning capabilities
- Internet of Things (IoT) integration
- Ongoing innovation workshops and R&D

1.5.1 Social Value

Building a positive human future is at the core of PA's organisational purpose and we live this value as a key advisor and partner to the UK public sector and by delivering tangible benefits to communities and society.

We are passionate about the positive impact PA can have on wider society, making a significant contribution to efforts in tackling inequality, wellbeing, online safety and ensuring effective stewardship of the environment and fighting climate change.

We are committed to maximising Social Value by using our specialist knowledge and skills to develop firm-wide health, well-being and, diversity and inclusion initiatives for our own people, project-specific initiatives with our clients and wider community benefits. We can work with you to deliver measurable improvements across your key social value initiatives.

1.5.2 Security Clearance

PA are a government List X accredited company who have a dedicated Security Vetting team. This allows PA to achieve security vetting of its employees in a time effective manner ensuring the correct processes are always followed (In accordance with the Security Policy Framework). As a matter of standard process, PA puts all its eligible employees through the Baseline Personnel Security Standard (BPSS), set out by the Cabinet Office. Those employees working on, or planning to work on, government projects are automatically put forward for SC clearance which are processed via UK-SV (formally the Defence Business Services – National Security Vetting). PA also process DV vetting through the UK-SV and other agencies, these are generally client sponsored.

PA currently have a large pool of cleared individuals (80% of UK Staff). Should a resource be identified where clearance is needed, the PA Security Vetting team will then process the individual through the relevant clearance procedure. The team will also be able to validate all existing clearances held by PA employees when requested.

1.5.3 Next Steps

This service is intended to help customers develop and deliver successful outcomes regardless of the life cycle stage they are at. PA prides itself on working with clients and helping them to deliver outcomes whilst also providing them the ability to 'stand on their own' so that they can move their solutions forward

without future involvement. Please contact us on GCloudFramework@paconsulting.com to discuss your needs further.



About PA.

We believe in the power of ingenuity to build a positive human future.

As strategies, technologies, and innovation collide, we create opportunity from complexity.

Our diverse teams of experts combine innovative thinking and breakthrough technologies to progress further, faster. Our clients adapt and transform, and together we achieve enduring results.

We are over 4,000 strategists, innovators, designers, consultants, digital experts, scientists, engineers, and technologists. And we have deep expertise in consumer and manufacturing, defence and security, energy and utilities, financial services, government and public services, health and life sciences, and transport.

Our teams operate globally from offices across the UK, Ireland, US, Nordics, and Netherlands.

PA. Bringing Ingenuity to Life.

Discover more at <u>paconsulting.com</u> and connect with PA on <u>LinkedIn</u> and <u>Twitter</u>.

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