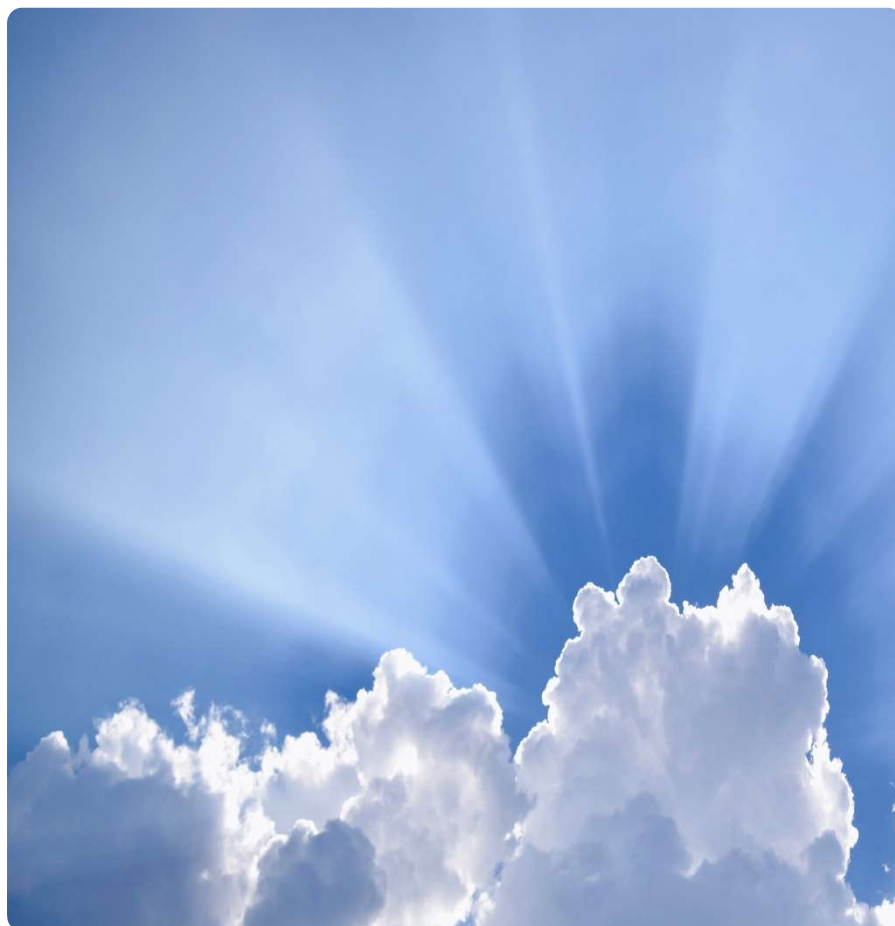




Crown  
Commercial  
Service



# Telecoms & Network Transformation and Sourcing

GCloud Service Description

**Bringing Ingenuity to Life.**  
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# 1 TELECOMS AND NETWORK TRANSFORMATION AND SOURCING

## 1.1 Short Service Description

We deliver network transformation: legacy telecom services and networks to modernised cloud architectures. We bring deep network technical expertise (IP, SD-WAN, wireless 4G / 5G, IoT) for IT, OT, CNI networks with public sector commercial (investment and economic cases) and operational knowledge supporting full network strategy, design, sourcing, programmes.

## 1.2 Key Service Features

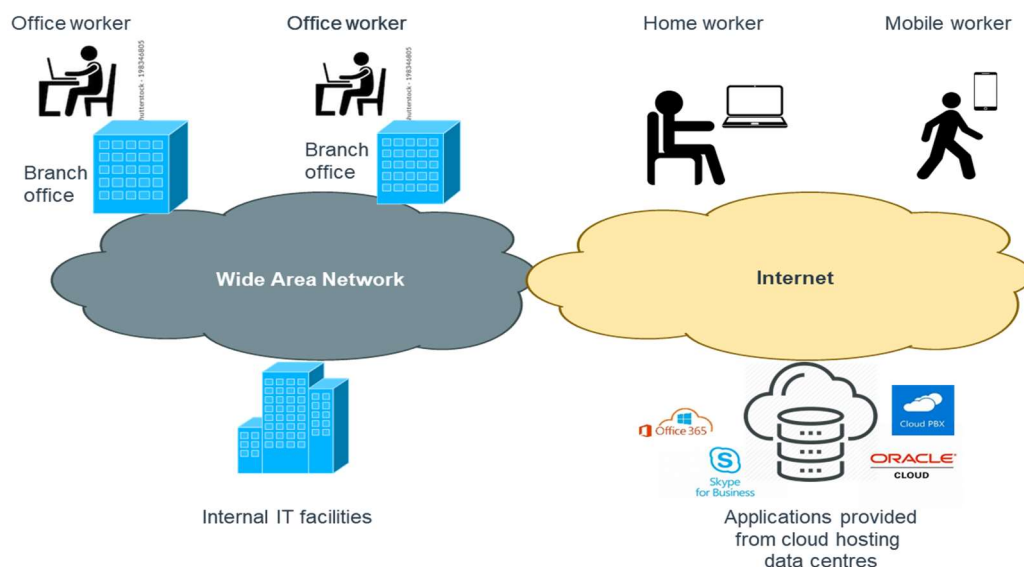
1. Strategy for fixed and wireless networks
2. Business cases for networks (SOBC, OBC, FBC)
3. Requirements (IP, SD-WAN, 4G, 5G, IoT, telephony, IPT)
4. New user services: smarter working/ home working, Unified Communications
5. Procurement of networks and network components
6. Commercialisation of assets for telecom services
7. Target operating model and service delivery performance improvement
8. Network and resilience audit and performance improvement
9. Network re-design, architecture, RF modelling
10. Network cost analysis and reduction

## 1.3 Key Service Benefits

1. Network transformation to accommodate distributed cloud service / security models
2. Rapid definition and execution of appropriate network transformation programs
3. Avoid common pitfalls based on network-specific experience and insight
4. Ensure successful commercial outcomes based on commercial telecoms expertise
5. Deliver total cost of ownership reductions
6. Improve service delivery and service performance
7. Pragmatic and clear steps that work in government
8. Understanding of government specific requirements
9. Collaborative working style and knowledge transfer to inhouse staff
10. Working procedures to align with health and safety

## 1.4 Service Definition

Our services are designed to help public sector entities transform their existing telecom services and networks into new infrastructure which is designed to meet the requirements of applications in the cloud and of massive remote and distributed working in the wake of COVID-19 via the Internet. This is shown in the following diagram with both users and applications moving to the right. We understand how to accommodate distributed cloud architectures and service provision, as well as distributed network security models. We have delivered leading edge large change programmes in public, private, and shared access networks and cloud solutions.



Our team includes senior industry experts, many bringing decades of industry experience, who know and recognise the unique set of challenges that exist in government networks, such as operating critical national infrastructure, stringent requirements for availability and resilience, requirements for the appropriate level of security to utmost safety levels, stringent operational requirements, and the limitations of heterogeneous estates with upgrade cycles. We work on national programmes, as well as local implementation projects.

We provide highly experienced specialists, with teams properly scaled to meet requirements, in telecoms and cloud strategy and policy, network procurement and transformation in all forms with experience and track record in working in complex government environments. Our experts help government clients to initiate network change and work collaboratively with wide groups of stakeholders to achieve lasting change. We have helped governments review and change critical national infrastructure and regulators develop leading edge founding regulations inclusive of the most leading-edge principles in the telecoms industry. We contribute to the procurement process, from strategy, business case development, RFP development, transition, and transformation to operational improvement. We are proven in working with governments and regulators, to develop solutions and the sector environment, enabling innovative and commercially relevant solutions for our clients.

### Our project delivery approach

PA has a proven and tested framework for telecom and network transformation to the cloud that considers every aspect on this cycle, from business case to network design and the activities required to ensure that a wide set of stakeholders are positively engaged.

Our framework considers every stage on the transformation cycle, including:

- Acting throughout with integrity and independence, as trusted advisors, with our clients' interests put first
- Ensuring that design solutions are carefully mapped to policy and regulatory environments
- Ensuring readiness for network change, with robust cases for change and stakeholder influencing
- Preparing organisations and teams for change across both technical and commercial domains
- Procuring services and equipment, with effective vendor management and solution diligence
- Executing and implementing transformation programmes, and

- Continued in-life service improvements, design and programme assurance, and cut-over to BAU.

Our entire end-to-end approach covers every aspect of the transformation:

- Build and communicate a compelling investment case for a new telecom network according to HMG Greenbook 5 Cases standards, updating it through the different stages from SOBC, to OBC, to FBC, to benefits realisation and communication
- Advise on and develop new commercial models (e.g. joint investment, PPP, shared access)
- Leverage commercially feasible emerging technologies, to bring effective solutions to clients' needs
- Investigate and document the legacy estate split over many sites with various heterogeneous combinations of existing legacy technology
- Design of the new cloud-ready network with requirements gathering, network architecture, implementation, and performance improvement by embedding KPIs
- Procure the new network from the market, including:
  - Ensure solutions are delivered to our clients best interests, not suppliers' interests
  - Network procurement strategy: "What are the options available to provide new or replace existing networks to meet the organisation strategy?" Insourcing or outsourcing, make or buy, availability of market offerings, existing government frameworks for network and telecom services, Target Operating Model analysis
  - Development of the network solution: "What network services do we need to buy, what are the best network solutions to meet these needs?" Requirements management, network architecture options and their respective costs, design-to-cost, design of the retained organisation
  - Finalise the solution: "How do we get the best possible deal?" Supplier engagement, support of a transparent evaluation, dialogue and negotiation, contracts and commercials with technology
- Design and drive the network transformation programme, including:
  - Management of the entire transformation program from the initial agreement on scope and governance, to detailed planning, delivery against milestones, and final transitioning into BAU
  - Transition and migration of networks, services, and users with minimal business disruption. This also includes any transition into a new service provider and exit management of an outgoing service
  - In-life improvement of network services, both in terms of operational KPIs, as well as in terms of cost and supply chain management
  - Enable change leadership and engage a wide range of affected stakeholders, ensuring training and knowledge exchange for lasting long-term impact

For each specific project we provide a tailored approach based on specific requirement and stakeholder environment. We can offer an entire programme with many workstreams as shown above or alternatively more tactical interventions for one stage and one aspect only.

We will tailor our approach to meet the size and complexity of the underlying infrastructure, taking advantage of existing government framework contracts for networks as and when this is appropriate.

## 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](mailto: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.

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Discover more at [paconsulting.com](https://paconsulting.com) and connect with PA on [LinkedIn](#) and [Twitter](#).

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