









Microsoft Defender for IoT

GCloud Service Description

Bringing Ingenuity to Life.

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1 Microsoft Defender for IoT

1.1 Short Service Description

PA Consulting offers comprehensive consultancy, design and delivery services for the deployment of Microsoft Defender for IoT within Internet of Things and Operational Technology environments. Through our experience of working with Critical National Infrastructure clients, we understand how to use security monitoring to enhance cyber maturity and drive operational resilience.

1.2 Key Service Features

- 1. Agentless security monitoring for Internet of Things and Operational Technology
- 2. Improved asset visibility across your estate
- 3. Facilitates better vulnerability management
- 4. Detects cyber attacks through threat and anomaly detection
- 5. Supports wider OT/IoT cyber maturity programme
- 6. Design, deploy, tune and integration service
- 7. Proof of Value exercise
- 8. Optional integration into SIEM and systems
- 9. Deployed on-premise or via the cloud
- 10. Integration with Microsoft Azure portal

1.3 Key Service Benefits

- 1. Protect your operational technology
- 2. Facilitates wider OT/IoT cyber maturity programme
- 3. Improved operational resilience and OT/IoT security posture
- 4. Enhanced situational awareness against cyber attacks
- 5. Supports compliance against NIS CAF, 62443 and NIST CSF
- 6. OT / IoT cyber security and risk reduction
- 7. Secure Critical National Infrastructure (CNI)
- 8. Oil, gas, power, manufacturing, transport and all other industrial sectors.

1.4 Service Definition

Over recent years there has been a growing awareness of the threat being posed to operational
environments across all industrial sectors, as is evidenced by well publicised attacks to sectors such
as downstream oil and gas, water, power and logistics. This has resulted in the increased adoption of
OT/IoT security monitoring products such as Microsoft Defender for IoT, which offer cyber security

benefits such as asset visibility, threat detection and better awareness of the operational processes running over the network. However, these products can be difficult to realise benefits from and deploy into operational environments, without the right partner that understands industrial environments and can partner you through the end-to-end process.



- Subsequently, PA Consulting has developed a three-phase approach to delivering Microsoft Defender
 for IoT into Operational Technology environments. In the initial phase we will work with you to first
 define a clear set of requirements and outcomes against the expected Use Cases that Defender for
 IoT delivers. We will also address the many pitfalls that can impact an OT security monitoring by
 ensuring robust stakeholder engagement, capturing the future operating model and successfully
 planning for wider system integration. After an optional a proof of value, we will work with you to
 understand your estate, before producing a high-level design.
- In the second phase we will complete the detailed design, deploy and enhance stages, where the
 monitoring capability is delivered into specific sites, repeating the process until the required coverage
 has been achieved. Once tuning and data augmentation have been completed, we will produce the
 requisite operational documentation and training, before handing over the solution to your in-house
 team or managed service provider.
- In the third phase, PA can continue to work with you to ensure that you leverage maximum value from the solution, such as by contributing to regulatory compliance and OT security frameworks such as NIS CAF, 62443 and NIST CSF.
- Our significant experience supporting clients within the Critical National Infrastructure (CNI) to design
 and deliver end-to-end security monitoring and SOC solutions across both IT and OT environments,
 makes PA a strong partner for Defender for IoT solutions. Our consultants are experienced in
 assisting organisations to secure their infrastructure, from governance, to security monitoring and
 penetration testing.

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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