

Digital transformation for UK policing



Harnessing the power of the cloud

Building modern digital services

“The pace of innovation and uptake of new technologies has never been faster, and it will never be this slow again.”

– **National Policing Digital Strategy 2020**

Policing in the UK is a benchmark for other law enforcement agencies around the world. Innovation across all platforms is accelerating but so is the pace of new challenges. Ever-evolving criminality, accelerated demand from cybercrime, and the increasing complexity and scale of digital evidence are placing additional demands on the modern police service.

Cloud technology can help UK policing respond to these demands and keep abreast of changes in order to be ready to respond to the new and yet unknown demands that the future will bring.

Adopting cloud is an essential step in the path to accelerating innovation and building the capabilities that UK policing needs to respond to the challenges posed by criminality. Being in touch with the latest digital trends will help police leaders build modern services.



Transforming capabilities in the cloud

“Policing is at a critical juncture. We either improve how we harness digital opportunities from existing and emerging technologies, or risk becoming overwhelmed by the demand they create and lose the chance to enhance and modernise our policing services.”

– **National Policing Digital Strategy 2020**

Today, the cloud is helping organisations make data-driven decisions to prevent crime and protect the vulnerable to offer a seamless experience for the public, with more credible and richer intelligence, all while maintaining public trust. By leveraging technologies like machine learning (ML) and artificial intelligence (AI), new tools and platforms can be—and are already being—developed, launched, and scaled to meet the needs of police and the communities and citizens they serve.

Giving officers on the frontline the latest technology at their fingertips in addition to transforming the way crime is reported and data is managed makes it easier to collaborate with agencies across the UK public sector and around the world to help tackle the challenges of borderless crime.

Digital citizen engagement, end-to-end digital evidence collection, processing and presentation, and advanced analytics are a few examples of the creativity and ingenuity empowering policing through technology.

In this eBook, you'll find real examples of how cloud technologies are delivering benefits for justice, policing, and other related areas to inspire your own journey to the cloud.

Let's get started.



Overview

Digital policing on the cloud

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- Fighting cybercrime
- Powering major investigations at scale



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Empowering government innovation



Long-term thinking:

Delivering innovation and transformation



Building securely for policing data



The workforce of tomorrow:

Digital skills on the cloud



Leveraging AWS Partners:

Collaboration fuels innovation



Build on AWS:

Explore the art of the possible



Digital policing on the cloud

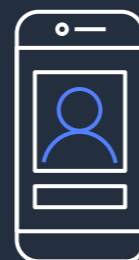
Responding to vulnerability with accuracy

"We know from just nine countries over a million children go missing a year," says Caroline Humer, vice president of Programs at International Centre for Mission and Exploited Children ([ICMEC](#)). The ability for policing to respond quickly and accurately to vulnerable persons and situations is paramount. Law enforcement agencies globally are leveraging the power of Amazon Web Services (AWS) to locate incidents, harness intelligence, and ultimately, help bring families back together. This includes adopting ML and AI capabilities on AWS to accelerate their missions and maintain a technological advantage in protecting the vulnerable from today's modern threats.

Here's how:



Citizens report a vulnerable missing person at a remote location (through phone calls, social media, or web interactions).



Using a free mobile app, control room staff are able to pinpoint a precise location.



Video streaming into the police command and control room begins. Law enforcement uses satellite imagery and drones to analyse the landscape, detect routes, and direct appropriate resources.



By collecting and analysing the data, authorities can deliver a coordinated response and locate the vulnerable person to give them appropriate safeguarding.

Digital policing on the cloud

Responding to vulnerability with accuracy

Child-protecting innovation

By moving to the AWS Cloud, ICMEC accelerated its mission to eradicate child abduction, sexual abuse, and exploitation.

[Learn more](#)

Helping law enforcement identify child-trafficking victims

Founded in 2012, Thorn builds technology to defend children from sexual abuse. Their solution Spotlight has helped officers identify 18,000 victims, including over 6,000 children.

[Learn more](#)

Fighting human trafficking

Marinus Analytics builds AI tools that turn big data into actionable intelligence in order to help find human trafficking victims and reunite them with their families.

[Learn more](#)

Chatbots and call centres: Connecting with citizens during critical times

Chatbots and modern call centres provide public sector institutions with an efficient way to connect with citizens during critical times. Read this article to learn from organisations across industries about how they scaled their services to meet increased demand:

[Learn more](#)

Finding people fast

What3words is a free application that divides the globe into 3m squares, giving each one a unique three-word address.

[Learn more](#)

Digital policing on the cloud

Fighting cybercrime

Ransomware has become a prominent cyber threat and attacks are costing governments, nonprofits, and businesses billions of dollars each year.

AWS works closely with law enforcement agencies and partners to prevent cybercrime from occurring, to respond effectively when it does, and to help businesses recover from cyber attacks by offering tools and resources that are readily available and easy to access. Here's how:



Protecting against cybercrime
Organisations can apply security perspectives and services to strengthen their security posture.

[Find out more](#)



Fight and respond
If an attack does happen, organisations can take steps to mitigate the impact. Learn more about Europol's solution as they assist European Union member states in their fight against international crime and terrorism.

[Learn more](#)



Pursue offenders
By using digital forensic data extraction, law enforcement agencies can identify cyber criminals. Chainalysis cryptocurrency investigation software helps law enforcement understand the real-world entities behind every transaction and combat all aspects of serious organised crime such as money laundering, terrorism financing, and human trafficking.

[Learn more](#)

Home Office: Fighting terrorist propaganda online

AI technology company Faculty uses AWS to help the UK Home Office automatically detect terrorist propaganda on the internet.

[Find out how](#)



Digital policing on the cloud

Powering major investigations at scale



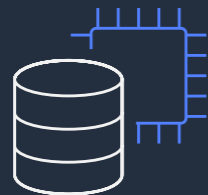
Incident response

Crimes are established in minutes and reported immediately through a mobile or tablet app, which syncs to the AWS Cloud.



Data integration at scale

AWS allows agencies to aggregate datasets in a single data lake to improve search and retrieval and make reporting processes more efficient. Data lakes integrate disparate datasets into a single repository, discovering insights in new data and improving the way the data is accessed and analysed.



Case management in the cloud

Facilitate the rapid acquisition of thousands of pieces of digital media and information as a part of the investigation. ML on AWS provides critical data analytics to derive actionable insights and intelligence from data. Object detection and recognition, along with text and character recognition, reduce investigation times and boost situational awareness by helping officers automatically identify key entries and de-duplicate information.



Collaboration across departments

Law enforcement agencies can send evidential case files and digital media to digital courtrooms to facilitate data sharing and render the justice process more efficient.

“Working with Amazon Web Services has empowered us to think differently, innovate rapidly, and start to design the policing services required in a digitally disruptive age. This collaboration supports our wider five-year strategy for digital transformation, which includes working with partners to build the culture, skills, and structure we need for our long term transformation. Working with AWS has supported us to focus on our strategic outcomes for building boundary-pushing technology to keep the community safe, and design services which are efficient, agile and scalable.”

Merseyside Police, September 2020

Data and forensics onsite

AWS Snowball offers petabyte-scale data transport with on-board storage and computer capabilities.

[Learn more](#)

Did you know?

Netflix, the world’s largest subscription streaming service, delivers billions of hours of content globally by running on AWS. Same technology—just a different use case.

[Learn more](#)

Cloud adoption in the UK public sector: **Empowering government innovation**

“Digital technology allows us to automate our infrastructure, adapt to user needs, and listen to data. In turn, this helps us deliver a better service to citizens.”

David Rogers, Head of Architecture and Security, UK Ministry of Justice (MOJ)

Using technology to empower justice

The MOJ uses technology to enhance the effectiveness and fairness of the services it provides to British citizens. From seamless evidence sharing to video-enabled court testimonies, digital technology utilised by the justice system responds to the needs of all who are involved in the process.

[Learn more](#)

ACE at the Home Office

The Accelerated Capability Environment (ACE) is a Home Office capability within the Office for Security and Counter Terrorism that delivers frontline impact to security and law enforcement services at pace.

ACE uses AWS as the platform for PodDev, a pioneering cloud environment that provides a secure space for its Vivace industry and academia community to collaborate with government to develop solutions using sensitive data.

The ability for rapid mobilisation and ease of collaboration make PodDev instrumental in allowing ACE to deliver results in weeks and months, rather than the months and years like with previous programmes. Development environments are quick to set up and need exist only as long as required.

[Learn more](#)

Long-term thinking: **Delivering innovation and transformation**

“Our leaders of tomorrow will need to endorse and demonstrate a genuine understanding of how to place digital at the centre of modern policing.”

– **National Digital Policing Strategy 2020**

Fully embracing cloud-based solutions is as much about a cultural shift as it is a change in IT policy. Many senior leaders believe the acceptance of change is essential for widespread technological progress.

At AWS, we are working closely with our policing and justice customers to accelerate innovation while building the culture, confidence, and skills necessary to achieve long-lasting transformation. We put our customers at the centre of everything we do to help them connect strategic goals and outcomes to the technology that enables them to succeed in their mission.



Long-term thinking: **Delivering innovation and transformation**

“We needed to choose technologies that would enable rapid development. In the cloud, we found a platform that would provide the basis for building user-focused applications, which we could change very quickly based on customer feedback.”

Tom Brewer, *Head of Service Creation, Driver and Vehicle Licensing Agency (DVLA), UK*

Driving development with the DVLA

By moving to the cloud, the DVLA chose to “control its own destiny,” knowing they needed to select technologies that would enable rapid development.

[Learn more](#)



Making the cloud work for you

The AWS Cloud Adoption Framework (AWS CAF) helps organisations develop and execute efficient and effective plans for their cloud adoption journey.

[Learn more](#)

Building securely for policing data

“The cloud on its weakest day is more secure than a client-server solution. It has transformed our ability to build new capabilities.”

Sean Roche, *Former Associate Deputy Director of Digital Innovation, Central Intelligence Agency (CIA)*

We designed AWS architecture to be the most flexible and secure cloud-computing environment available today. We built our core infrastructure to satisfy the requirements of the most secure and highly regulated public sector and commercial organisations worldwide.

Organisations benefit from AWS data centres and a network architected to protect their information, identities, applications, and devices. Users can improve their ability to meet core security and compliance requirements, such as data locality, protection, and confidentiality with our comprehensive services and features.

AWS selected to support UK law enforcement

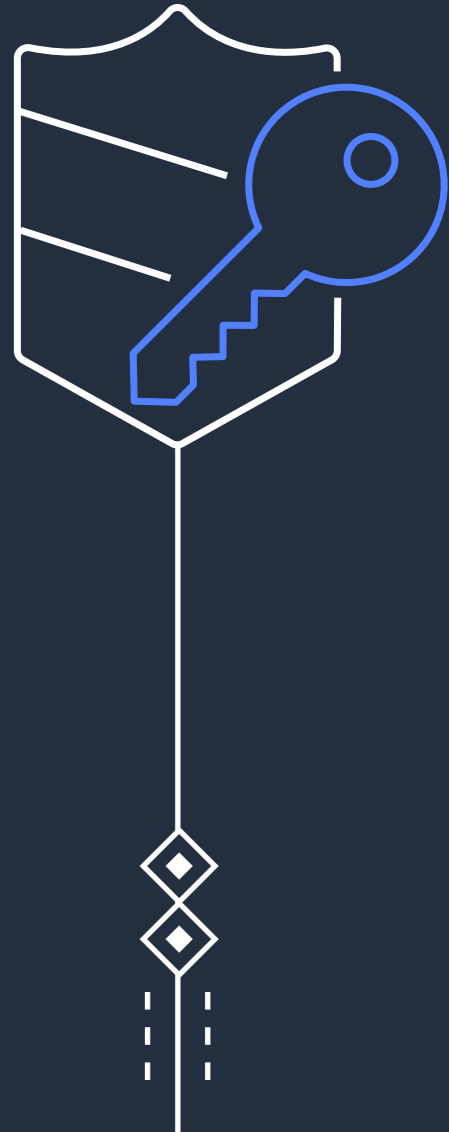
Following an assessment, the Home Office Digital, Data, and Technology team, supported by their colleagues in the National Policing Information Risk Management Team (NPIRMT), selected the AWS EU (London) Region to provide services to support UK policing.

[Learn more](#)

MOJ and NCSC: Security on the cloud

Watch Tom Read, chief digital and information officer, Ministry of Justice UK, and Ian McCormack, technical director, applied risk management, National Cyber Security, share their modernisation efforts. Hear about their paradigm shift from the perceived risk of moving to the cloud to recognising a more secure infrastructure on AWS.

[Watch here](#)



One Government Value Agreement: Accelerating cloud adoption and innovation across UK government

“CCS provides commercial agreements which help organisations across the entire public sector save time and money on buying everyday goods and services. This agreement with AWS demonstrates excellent value for the public sector organisations we serve, and supports them in their drive to improve services for citizens across the UK.”

Simon Tse, *Chief Executive of the Crown Commercial Service*

As part of the work associated with the One Government Cloud Strategy, the Cabinet Office and Crown Commercial Service (CCS) signed a Memorandum of Understanding (MoU) with Amazon Web Services (AWS): the One Government Value Agreement (OGVA). The OGVA allows government departments, agencies, and organisations in the public sector to accelerate their use of and derive greater value from the AWS Cloud.

[Learn more](#)

[Learn more](#)



Building digital skills on the cloud



In collaboration with AWS, UK policing can build the culture, confidence, and skills necessary to achieve long-lasting transformation. Adopting the cloud will generate an environment of continuous experimentation, which will help UK policing leaders focus on innovation for public safety rather than IT maintenance.

Learn from AWS experts

AWS Training and Certification helps users build and validate their cloud skills so they can get more out of the cloud. AWS experts build and update our content regularly to keep pace with AWS updates so you can be sure you are learning the latest and keeping your cloud skills fresh.

AWS re/Start: Launching careers in the AWS Cloud

AWS re/Start is a full-time, classroom-based skills development and training program that prepares individuals for careers in the cloud and connects them to potential employers. A technology background is not required to apply, and the programme focuses on unemployed or underemployed individuals, including military veterans and their families, along with young people. UK policing organisations can also get involved as employers and meet new potential candidates who are AWS-trained individuals and ready to fill cloud roles.

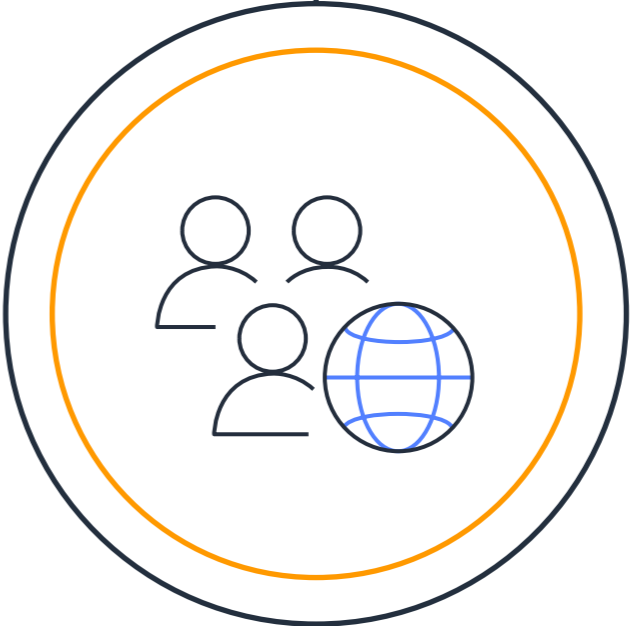
[Learn more](#)



Leveraging AWS Partners: **Collaboration fuels innovation**

AWS Partner Network (APN) organisations help you grow and scale your mission on AWS. The APN Partners can help you accelerate your journey to the cloud and take full advantage of all that AWS has to offer.

[Learn more about the APN](#)



Working together to get things done

Contino worked with AWS to help LG CNS achieve a rapid migration of 70 on-premises applications to the public cloud in 70 days; transforming and transitioning applications from legacy infrastructure and upskilling the local team to meet the future demands of the market.

[Learn more](#)



Build on AWS:

Explore your art of the possible



Start building on AWS and realise the long-term benefits of cloud technology underpinning a cutting-edge approach to UK policing.

Keep learning

Find out more about how AWS helps public sector innovation at our online hub

[VISIT HUB](#)

Get in touch

You can email us or use our live chat service to answer any questions you have

[CONTACT US](#)





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