



Trust. Value. Velocity

G-Cloud 15

Cloud Migration - Strategy, Planning and Delivery
Service

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1. About Mastek

Mastek has been delivering Critical National Infrastructure programmes in the UK Public Sector for over a decade now. We are trusted with multiple contracts for the UK Government across Central Government, Health, Local Government, Policing, Public Protection and Defence. The majority of our national services are delivered in a context of high uncertainty and complexity while collaborating in multi-supplier environments.

While working for these large and complex public sector organisations, we have continuously refined our management, delivery and underlying processes to reflect key learnings from the sector:

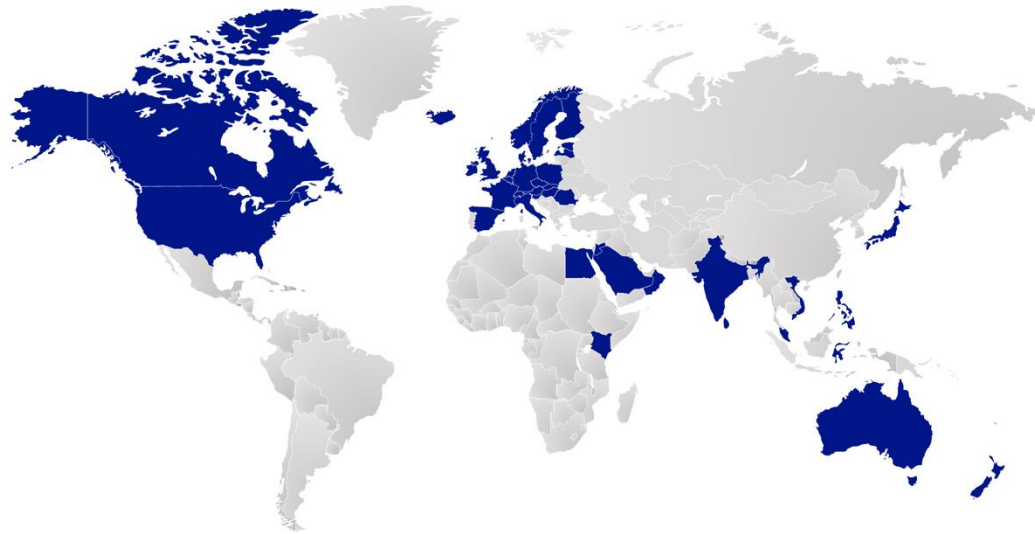
Working through a complex stakeholder landscape: We understand the importance of establishing effective communication channels, building trust and fostering a collaborative working environment that empowers stakeholders to contribute meaningfully to the project's success. Our approach is grounded in a thorough understanding of stakeholder needs and requirements. We leverage our experience and expertise to design governance structures that promote transparency and accountability, utilising data-driven reporting mechanisms to ensure stakeholders have real-time visibility into project status and progress. At the Home Office, GDS, Ministry of Defence and NHS, we have a proven track record of working seamlessly with large stakeholder groups, including civil servants.

Standards and compliances: We comply with over 20 policies and standards, including Government Digital Standards and the Government CDDO Service Toolkit, which covers service standards, service manuals, TCoP, API technical, and data standards. Our stringent governance, methods, playbooks, and processes (both manual and automated) span across all service delivery phases, ensuring continuous compliance.

Policy-driven: Policies and procedures primarily drive Public Sector organisations. We need to be Agile and flexible to meet demands for policy/regulatory changes, geopolitical events and ministerial commitments.

Culture: We adhere to the Civil Service core values of integrity, honesty, objectivity and impartiality. Key behaviours we promote stem from a combination of Civil Service and Mastek values. These include being passionate, accountable, sustaining predictable and repeatable outcomes, not transferring risk, transparent, leading to enable, acting with transparency, practising a no-blame culture and being flexible.

Mastek's global presence



Australia

Austria

Bahrain

Belgium

Brunei

Canada

Denmark

Egypt

Estonia

Finland

France

Germany

Hungary

Iceland

India

Indonesia

Ireland

Italy

Japan

Jordan

Kenya

Kingdom of Saudi Arabia
(KSA)

Kuwait

Latvia

Luxembourg

Malaysia

Netherlands

New Zealand

Norway

Oman

Philippines

Poland

Romania

Singapore

Slovakia

Spain

Sri Lanka

Sweden

Switzerland

United Arab Emirates (UAE)

United Kingdom

USA

Did you know?

75%

Around three quarters of Local Authorities in the UK who run Oracle have worked with Mastek on their digital transformation journey.

300,000 Users

Supported managing up to 750,000 logins per month to MOD through Identity and Access Management

Crime reduction

We designed, built and manage the UK's Strategic National DNA Database that helps Forensics and Law Enforcement Authorities investigate and stop crime

90% faster

We enabled the National Health Service (NHS) to drive 90% faster response times with a billion pharmacy prescriptions a year.

Technical Service Desk

We provide level 2 and ITSM support for the One Login service at Government Digital Service

22k

Our systems enable 22,000 schools to function efficiently every day of the year.

Healthcare and manufacturing

We delivered Finance, HCM and Supply Chain transformations for clients across health and manufacturing globally powered by Oracle Cloud

Transformation of trade

Transforming UK's trade with the EU and rest of the World by supporting Customs Declarations Services and its trade users.

99.99% Availability

We support the Home Office Biometrics (HOB) Platform, Having migrated it to an AWS platform.

Our digital and cloud services portfolio

Powered by Glide 4.0 and value-based delivery

Industry-aligned approach with business outcomes

Digital engineering and experience	• Cloud engineering and migration • Legacy modernisation • Low code / no code App Dev • DevSecOps • Enterprise integration	• MACH • Digital commerce • UX and CX • Platform engineering • Gen AI software development.
Oracle Cloud and enterprise apps	• Oracle Cloud applications • Oracle consulting • Oracle Cloud infrastructure	• Value-based delivery • Glide 4.0.
Data, automation and AI	• Cloud data modernisation • Business Intelligence and Analytics	• Data management • Intelligent automation • Data Governance.
Salesforce	• Sales Cloud • Service Cloud • Marketing Cloud • Industry Cloud	• Experience Cloud • Mulesoft.
Innovation labs and platforms	• Enterprise workforce scheduler • Connected enterprise • icx-Pro – intelligent part assistant	• iLeaseFinPro.
Cloud enhancement managed services	• Oracle managed services • Digital managed services • Commerce managed services	• Salesforce managed services.

Home Office Biometrics (HOB)

Public sector platform modelled 24x7 with 99.99% availability

Problem

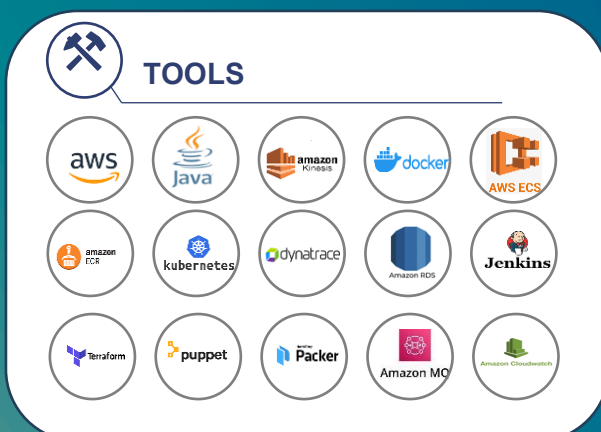
- Transition business-critical Platform services from incumbent supplier with minimal risk
- Migration from private cloud to AWS Cloud.

Solution

- Migrated the infrastructure from private cloud to AWS
- Embedding Kubernetes Containerisation
- Introduced Docker and fully-baked AMIs
- Supporting the platform's self-service functionality using Jenkins Jobs
- Applying security updates to the OS base images through pipelines
- Instituting automated patching and testing for infrastructure images
- Support of configuration, test and releasable artefacts through the pipeline.

Outcome

- **Zero impact** on live service
- **80% automation** of SIT
- Environment Provision **2 days to 1 hour**
- **5x scalability** in handling student BRPs
- Cost saving the authority circa **£9.5m/year.**
- Won the '**Best Use of Cloud Services**' award
- **35%** Incident Volume Reduction.



Government Digital Service

Problem

GDS initiated the One Login programme to create a single front door for identity verification and authentication, which could be adopted and scaled across all government departments. This would improve the user experience by providing the public with a single identification and verification service for the government, reduce costs as each department no longer required its own identity service and reduce identity fraud and identity-enabled crime.

GDS released a tender in June 2023 to provide a Technical Service Desk (TSD) managed service for the One Login service. This service would provide a single point of contact for level 1 and 2 service support as part of the wider support ecosystem. It would be provided in the UK and replace the incumbent's scaled-down non-ITIL-aligned break-fix service.

Solution

In September 2023, Mastek were successfully awarded the TSD contract to deliver TSD on behalf of GDS. GDS had an extremely aggressive programme driven by the onboarding of HMRC as a user, which was a major milestone planned for February 2024, migrating new and existing HMRC users to the One Login platform. The TSD service was expected to go live in November 2023. This was an extremely complex programme which, within this timescale, would deliver:

- The contact centre provider for level 0 directly facing the public
- The TSD supplier in place, directly facing all government departments
- The TSD supplier in place providing L1 and L2 engineering support and monitoring
- Continued delivery on the One Login backlog of features
- Continued migration of smaller government departments to the platform.
- Delivery of a new ITSM toolset to be configured for use by GDS and the One Login programme, integrating level 0 to level 3 support
- Working as one team, Mastek quickly integrated into the programme, appointing the leadership team early in the engagement. We collaborated with GDS from the outset, ensuring we tailored the service to their expectations rather than delivering what was written in the contract.

Our leadership team consisted of:

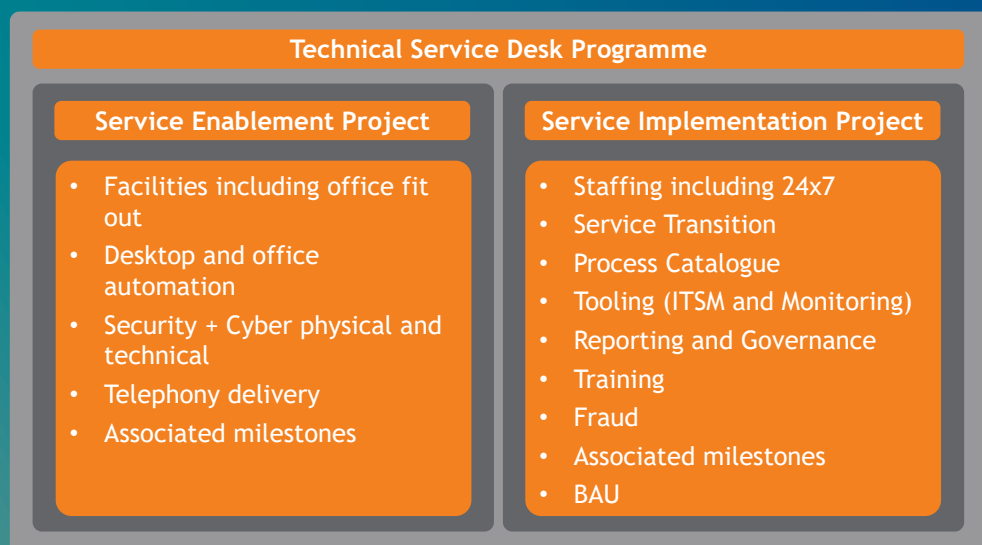
- Service Management Vice President
- Programme Director
- Chief Technology Officer
- Programme Management office lead.

Outcome

At its height, the programme team was circa 15 strong, covering programme/project delivery, PMO, architecture, fraud, security, support, omni-channel and quality assurance. The service team is currently in place, providing circa 21 resources now covering end-to-end service management, service delivery and L1 and 2 engineering roles.

As the One Login migrations continue, Mastek is supporting Government departments onboarding to the platform as they transition into the new service and provide One Login a secure Technical Service Desk managed service with:

- Omni-channel access for other government departments via telephony, email and web form
- Provision of L1 and L2 engineering support
- 24x7, 365 days a week cover
- 24x7x365 eyes on monitoring service
- Fraud detection and security, GDPR compliant
- End-to-end (L0-3) incident and problem management
- End-to-end 24x7 Major incident management (MIM)
- On-call/call-out engineering support, incident and MI management
- Adherence to stringent SLAs on incident response, call handling and fix times
- End-to-end monthly service reporting alongside TSD KPI and SLA reporting.
- A shift left culture and mindset, reducing the impact of service on product teams (L3)
- Support with service maturity in the programme, preparing GDS to run critical national infrastructure.



Internet-facing platform and applications for Army Digital Services

Developed mobile app and web app with 24*7 high availability

Problem

- New Defence Gateway Portal
- Combine all internet-facing applications into one
- Easy to use
- Enable easier access to the MySeries portfolio of products.

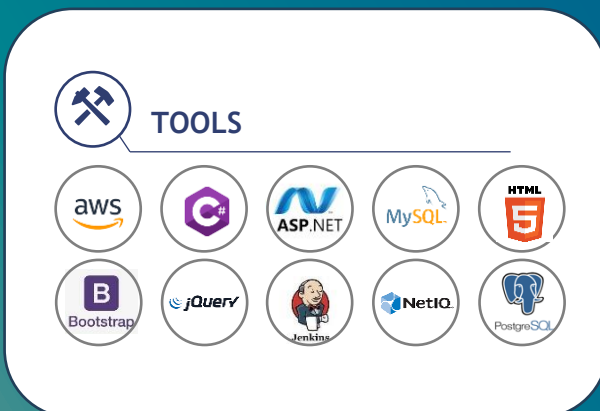
Solution

Designed and developed the following easy-use Progressive Web Apps:

- Defence Gateway Landing Page
- My Leave App
- My Expenses App
- My Health App
- My Details App
- My Appraisal App
- My Admin App
- COVID-19 Reporting Tool
- Commanders' COVID-19 Tool.

Outcome

- Delivered 20+ successful projects
- Deployment Automation
- £7.5m in savings annually
- Zero Downtime
- Environment creation in hours.



Delivered a platform for the Department for Health and Social Care

Delivered capability supporting 200k+ tests in a day,
traced millions of COVID-19 infections

Problem

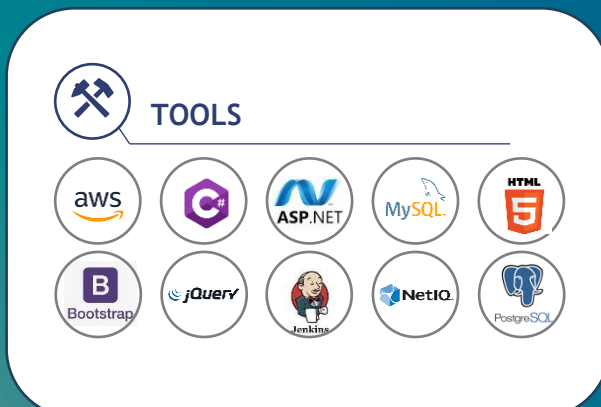
- Leveraging DevOps platform based on reusable GitHub, AWS and Azure DevOps Pipelines
- Introduce more flexible, scalable and reusable IaC capabilities
- Implement CI/CD pipelines.

Solution

- Uplifted from Cloud Formation into Terraform (IaC)
- Pre-built the AMIs using Packer, with automated security checks
- Immutable infrastructure, thus eliminating the risks of partial upgrades and patches
- Continual Cost Optimisation processes and other service functions, such as Change and Risk management
- Migrated into an organisation-wide collaboration toolset. This included Jira, Confluence, Trello, Miro, Teams, SharePoint, O365, Slack, etc.

Outcome

- 75% reduction in lead time due to pre-built AMIs
- Zero Downtime Deployments
- Delivered a Platform - Secured, multi-tenanted, hosted on Azure and AWS in 5 weeks
- Cost reduction achieved through close monitoring of resource utilisation.



Mastek and Technology in the Public Sector

Technical Capabilities	Relevant Technology Capability	Mastek Scale
Software Development Continuous Integration, Platform - Other Products, Cloud Collaboration Tools		Software Engineering 2354 FTE
QA and Test: API, Automated Functional and Compatibility, Accessibility & Performance		QA and Testing 774 FTE
Cloud Platforms Amazon Web Services AWS Microsoft Azure		Cloud Platforms 1046 FTE
Data BI/MI Components, Integration		BI and Visualisation 725 FTE
User-Centered Design		UCD 25 FTE
Office Automation Tools		Collaboration 4565 FTE

2. Summary

Mastek is dedicated to empowering organisations to navigate the complexities of cloud transition smoothly and effectively.

Our **Cloud Migration Services** are designed to help businesses leverage the full potential of the cloud, whether moving to, from, or between cloud environments. Our holistic approach encompasses strategic evaluations, comprehensive assessments, detailed planning and execution and ongoing support.

Our approach leverages automation and AI-assisted tooling, including AWS native services such as AWS Transform, to accelerate discovery, modernisation and migration while reducing risk and disruption.

At every stage of your cloud journey, from initial conception to post-migration optimisation,

Mastek is your trusted partner, ensuring your move to the cloud is strategic, seamless and secure.

3. Mastek's Service

Our services are outlined below:

3.1 Strategy Review and Discovery

We start by aligning your cloud migration strategy with your overarching business goals.

Through a thorough examination of your current IT setup and business objectives, supported by automated and AI-assisted discovery techniques where applicable, we develop a migration strategy that addresses your immediate needs and positions you for future success.

3.2 Capability and Maturity Assessment

Understanding your organisation's current state is key to a successful migration. We assess your IT landscape and readiness, identifying strengths and pinpointing areas of improvement, paving the way for a smooth cloud transition.

We assess your IT landscape and readiness using a combination of expert-led analysis and AWS-native assessment tooling, such as AWS Transform, to identify strengths, technical debt, and modernisation opportunities.

3.3 Maturity and Readiness Assessment

We explore your organisation's preparedness for cloud adoption and offer insights into its current cloud maturity. This comprehensive review identifies growth opportunities and ensures you're fully equipped for a cloud-centric future.

This comprehensive review may incorporate AI-driven analysis of application portfolios and dependencies to provide deeper insight and prioritisation for cloud adoption.

3.4 Requirements Definition

A successful migration starts with clear objectives. By collaborating closely with your team, we gather and define the precise technical and business requirements that will guide your cloud migration journey.

By collaborating closely with your team and augmenting workshops with automated insights from assessment tools, we gather and define the precise technical and business requirements.

3.5 Usability Assessment and Design

Assess the usability of cloud-based systems and design user-friendly interfaces. This involves conducting usability assessments for cloud-based systems to ensure that the client's cloud environment meets the user's needs and preferences. By evaluating the user experience aspects of cloud applications and services, we design intuitive interfaces and workflows to optimise usability and enhance productivity.

3.6 Architectural Governance

The Architectural Governance component of our Cloud Migration Services establishes a robust framework to oversee cloud architecture, ensuring alignment with strategic business objectives and adherence to compliance and security standards. It encompasses standards and policy formulation, stakeholder engagement, risk management and performance monitoring to optimise cloud architecture efficiency and cost-effectiveness. Through continuous learning and adaptation,

this governance framework supports agile decision-making and mitigates risks, facilitating a secure, compliant and responsive cloud migration process.

Where appropriate, we use automated and AI-assisted insights to support compliance checks, cost optimisation and architectural consistency.

3.7 Architecture Design

Design robust, scalable and secure cloud architecture. This involves utilising our expertise in cloud solutions architecture to design an optimal cloud environment, considering scalability, security and compliance factors. By applying industry best practices to design architecture that meets the client's requirements for scalability, security and compliance, we establish a solution designed for purpose within a governance framework, ensuring the effective management of cloud resources.

This may include leveraging AWS Transform to inform application refactoring, re-platforming, or modernisation pathways aligned to cloud-native best practices.

3.8 Planning and Migration Readiness

Develop a comprehensive migration plan and ensure readiness for migration. This involves developing a comprehensive migration roadmap, including timelines, resource allocation, risk management and a readiness checklist. Creating a detailed migration roadmap, including timelines, resource allocation, risk management and a readiness checklist, prepares the client's business and IT environment for a smooth transition to the cloud.

AI-assisted dependency mapping and migration analysis can be utilised to refine sequencing, mitigate risk and enhance the accuracy of migration planning.

3.9 Implementation and Delivery

Execute a migration plan efficiently with minimal disruption. This involves implementing the migration strategy and leveraging our tools and methodologies to ensure minimal downtime and disruption. This consists of implementing a migration strategy using our proven methods and tools to seamlessly migrate workloads, applications and data to the cloud environment.

This involves implementing a migration strategy using our proven methods and tools, including AWS-native automation and AI-assisted migration services where suitable, to seamlessly migrate workloads, applications and data.

3.10 Service Transition and Support

Provide ongoing support post-migration to ensure smooth operation. To ensure sustainable cloud adoption, we offer post-migration support, including operational handover, training and cloud management services.

By providing post-migration support, including operational handover, training and cloud management services, we continuously monitor and optimise the cloud environment to maximise performance and efficiency.

Post-migration support may include the use of intelligent monitoring and optimisation tools to continuously improve performance, resilience and cost efficiency.

4. Key Features

Our Cloud Migration Services stand out by offering:

- Custom strategies that ensure your cloud migration aligns perfectly with your business objectives.
- A detailed understanding of your needs through comprehensive assessments and stakeholder engagement.
- State-of-the-art cloud architecture, designed with security, scalability and governance at its core.
- A strategic migration plan that prioritises minimal operational disruption.
- Continued post-migration support to ensure your cloud environment evolves with your business.
- AI-assisted migration and modernisation, leveraging AWS native services such as AWS Transform to accelerate assessment, planning and delivery.

5. Business Benefits

Transitioning to the cloud with Mastek's expertise brings a multitude of operational, financial and technological benefits:

- Gain operational agility and efficiency, enabling swift adaptation to market changes.
- Leverage cloud scalability to drive business expansion while optimising costs.
- Elevate your security framework and ensure compliance with industry standards.
- Harness the latest cloud innovation to secure a competitive edge in your market.
- Faster, lower-risk migrations through AI-assisted discovery, analysis and modernisation planning.

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