



Trust. Value. Velocity

**G-Cloud 15**

**Data and Analytics Support 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 based on a deep understanding of stakeholder needs and requirements. We leverage our experience and expertise to design governance structures that promote transparency and accountability and use 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, compliances:** We comply with >20 policies and standards, including Government Digital Standards and Government CDDO Service Toolkit covering service standards, service manuals, TCoP, API technical and data standards. Our stringent governance, methods, playbooks and processes (manual and automated) span across service delivery phases, ensuring continuous compliance.

**Policy-driven:** Policies and procedures largely 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

|                                           |                                                                                                                                                                                                                  |                                                                                                                                                                                   |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Digital engineering and experience</b> | <ul style="list-style-type: none"> <li>• Cloud engineering and migration</li> <li>• Legacy modernisation</li> <li>• Low code / no code App Dev</li> <li>• DevSecOps</li> <li>• Enterprise integration</li> </ul> | <ul style="list-style-type: none"> <li>• MACH</li> <li>• Digital commerce</li> <li>• UX and CX</li> <li>• Platform engineering</li> <li>• Gen AI software development.</li> </ul> |
| <b>Oracle Cloud and enterprise apps</b>   | <ul style="list-style-type: none"> <li>• Oracle Cloud applications</li> <li>• Oracle consulting</li> <li>• Oracle Cloud infrastructure</li> </ul>                                                                | <ul style="list-style-type: none"> <li>• Value-based delivery</li> <li>• Glide 4.0.</li> </ul>                                                                                    |
| <b>Data, automation and AI</b>            | <ul style="list-style-type: none"> <li>• Cloud data modernisation</li> <li>• Business Intelligence and Analytics</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>• Data management</li> <li>• Intelligent automation</li> <li>• Data Governance.</li> </ul>                                                 |
| <b>Salesforce</b>                         | <ul style="list-style-type: none"> <li>• Sales Cloud</li> <li>• Service Cloud</li> <li>• Marketing Cloud</li> <li>• Industry Cloud</li> </ul>                                                                    | <ul style="list-style-type: none"> <li>• Experience Cloud</li> <li>• Mulesoft.</li> </ul>                                                                                         |
| <b>Innovation labs and platforms</b>      | <ul style="list-style-type: none"> <li>• Enterprise workforce scheduler</li> <li>• Connected enterprise</li> <li>• icx-Pro – intelligent part assistant</li> </ul>                                               | <ul style="list-style-type: none"> <li>• iLeaseFinPro.</li> </ul>                                                                                                                 |
| <b>Cloud enhancement managed services</b> | <ul style="list-style-type: none"> <li>• Oracle managed services</li> <li>• Digital managed services</li> <li>• Commerce managed services</li> </ul>                                                             | <ul style="list-style-type: none"> <li>• Salesforce managed services.</li> </ul>                                                                                                  |

# Home Office Biometrics (HOB)

Public sector platform modelled 24x7 with 99.99% availability

## Problem

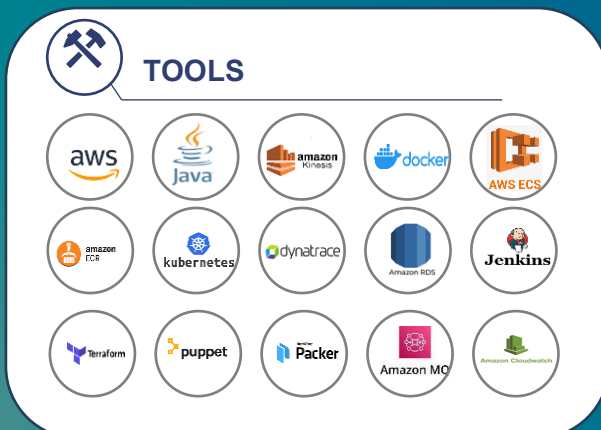
- Transition business-critical Platform services from incumbent supplier with minimal risk
- Migration from private cloud to AWS Cloud.

## 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:

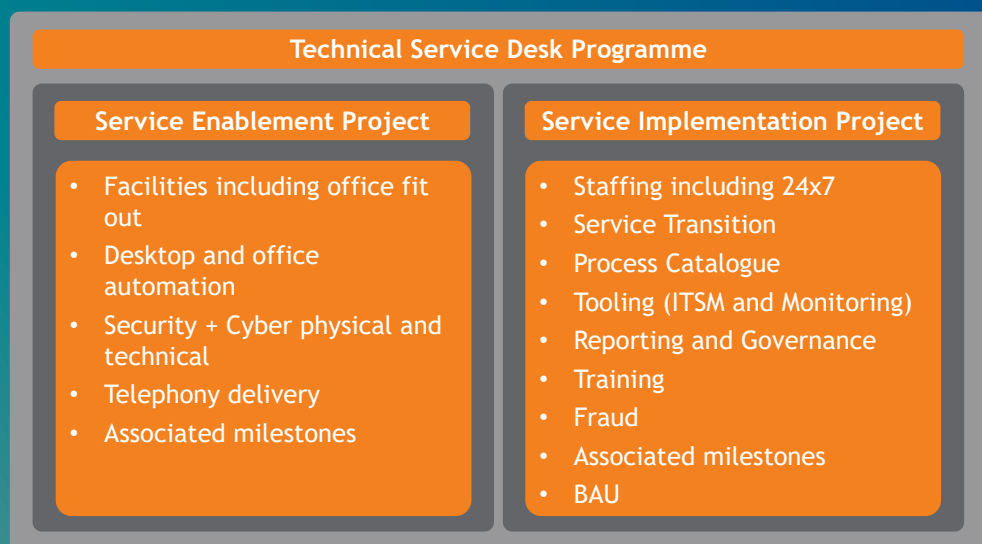
- Service Management Vice President
- Programme Director
- Chief Technology Officer
- Programme Management office lead.

## 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.

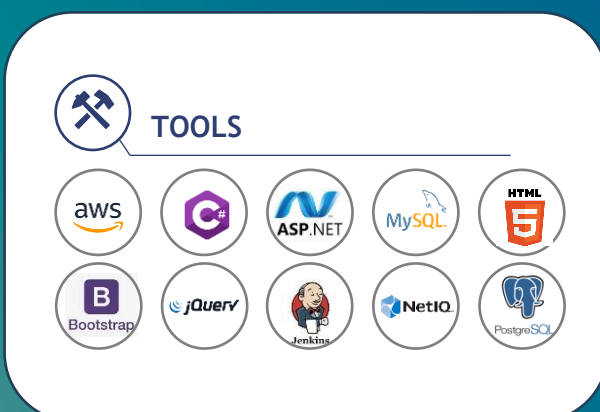
## Solution

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

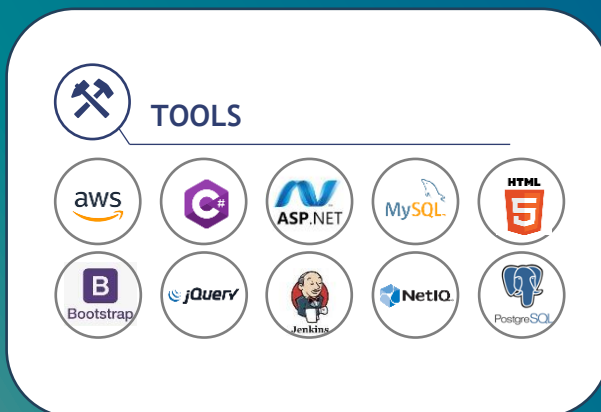
- Leveraging DevOps platform based on reusable GitHub, AWS and Azure DevOps Pipelines
- Introduce more flexible, scalable and reusable IaC capabilities
- Implement CI/CD pipelines.

## 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                            |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------|
| <b>Software Development</b><br>Continuous Integration,<br>Platform - Other Products,<br>Cloud Collaboration Tools |                                | <b>Software Engineering</b><br>2354 FTE |
| <b>QA and Test:</b> API, Automated<br>Functional and Compatibility,<br>Accessibility & Performance                |                                | <b>QA and Testing</b><br>774 FTE        |
| <b>Cloud Platforms</b><br>Amazon Web Services AWS<br>Microsoft Azure                                              |                                | <b>Cloud Platforms</b><br>1046 FTE      |
| <b>Data BI/MI</b><br>Components, Integration                                                                      |                                | <b>BI and Visualisation</b><br>725 FTE  |
| <b>User-Centered Design</b>                                                                                       |                                | <b>UCD</b><br>25 FTE                    |
| <b>Office Automation Tools</b>                                                                                    |                                | <b>Collaboration</b><br>4565 FTE        |

## 2. Summary

Mastek has over two decades of experience implementing and supporting Data Warehouse and Business Intelligence (BI) platforms. These systems are in production and deployed on various technologies.

The **Data Analytics Support Service** is delivered using Mastek's Agile Service Management (ASM) service, a DevSecOps-based approach that sustains and continuously improves applications and environments/platforms in live service operations, from Early Life Support (ELS) through to Live retirement.

We adopt and blend Agile and ITSM methods and best practices to provide:

- Proactive monitoring and maintenance services to maximise the availability and operational performance of your BI and Data Warehouse platforms
- Responsive support services to rapidly fulfil service requests, resolve incidents and eliminate their root causes.
- Accelerated delivery of changes and enhancements to your data platform to improve service quality, optimise cost and meet new/emerging business needs.
- Overarching service management ensures that your expectations are met consistently and the continuous improvement pipeline is managed through governance and assurance activities.
- Quality assurance through automated testing of iterative deliveries to accelerate time to delivery and add value early.
- Service operations automation that leverages tooling to accelerate the execution of recurring, repetitive and effort-intensive tasks.

We underpin our service delivery with an ethos of knowledge sharing and continual service improvement.

Our services are delivered from our best-shore service centres, configured to suit your needs, utilising experienced BI professionals with specialisations in the required technologies. This can include on-site (co-located with your team), near-site (from one of our UK delivery centres), offshore (from our secure offshore delivery centres), or a hybrid that matches your requirements and security considerations.

### 3. Masteks Service

Mastek's Data Analytics Support Service is based on our ASM service components to provide customers with a standard approach to support services that can be customised to meet specific service needs. Our Support Service is delivered by our team of experienced BI professionals and covers:

- Data Warehouse Platform and Environment Management: Operational services for database, environment, platform and server.
- Performance Management: Monitoring and trend analysis of the reporting and data platforms against performance and availability targets and business KPIs.
- Application Enhancements: Deployment of Change and new features and ongoing backlog management.
- Data Validation: Checks for data quality issues.
- User Security: Ongoing security management and access requests.

Our team can also provide several optional services:

- Advisory Services for Data Governance, Access and Quality.
- Automated Testing Services for process automation and regression testing.

#### 3.1 Delivery model

Mastek deploys a customer-oriented, integrated delivery model to provide ASM, which can be organised in a traditional tiered support model (Level 1/2/3 Support) or a product-centric, multidisciplinary "squads" approach.

#### 3.2 Quality

As a leading provider of Agile software support services to the UK Government, we pride ourselves on our highly responsive delivery, strengthened by standardised best-practice processes based on the IT Infrastructure Library (ITIL).

Our support model conforms to ISO 20000 IT Service Management, ISO 9001 Quality Management and ISO 27001 Information Security standards.

We agree and implement Service Level Agreements (SLAs) and associated Key Performance Indicators (KPIs) to measure and manage the quality of service. These SLAs and KPIs can be selected from Mastek's standard catalogue or tailored to your requirements.

End-to-end service delivery integration is enabled by deploying our leading tooling or integrating with your existing tooling environment.

#### 3.3 Commercial Approach

Mastek is keenly priced and competitive. It prefers to engage with clients based on agreed-upon outcomes, working in true partnerships to deliver as One Team. We discuss and decide on the right commercial structure to meet the needs of each specific customer.

Each approach has its advantages, from predictability to flexibility and typical options include:

- Fixed fee: a fixed annual service charge for a defined scope of service with agreed service levels and service hours.
- Time and Materials (T&M): a consumption-based charge-out of resources according to an agreed set of rates for particular capabilities and experience levels.

- Blended Fixed fee/T&M: a combination of a fixed fee for the agreed-upon core scope of service and time and materials charge-out for elective and “flex” scope of services.

## 4. Key Features

- Comprehensive service solution with flexible service components tailored to your organisation's needs.
- Strong customer-oriented team, empowered to collaborate with our customers, led and assured by strong delivery management.
- Highly responsive and proactive service delivery.
- Voice, chat/collaboration and email interaction channels.
- Integrated and automated service delivery enabled through tooling.
- Service Level Agreements/Key Performance Indicators negotiated to match your business needs.
- Extended service hours options delivered in various models (e.g. full 24x7x365, extended hours shift patterns, on-call/call-out).
- Embedded service improvement and innovation to maximise investment in your data platform
- Maintain key SOP process and deployment documents for an effective support level to meet SLAs.
- Monitoring various data processing and access activities and analysing the audit logs.
- Proactive analysis and recovery of failed processes and reports per defined processes.
- Prioritisation of service incidents and deployment of the patch release as per the business priority.
- Monitoring database health and heartbeat of multiple components within the ecosystem.
- Working on process chains to automate maintenance tasks for better productivity.
- Flexible commercial models tailored to your circumstances.
- ISO 20000 IT Service Management compliance.
- ISO 27001 Information Security Management compliance.
- ISO 9001 Quality Management standards compliance.

## 5. Business Benefits

- Year-on-year cost optimisation and incident volume reduction for multi-year engagements.
- High-end user productivity through rapid incident resolution.
- Qualified IT professionals with deep application, technical and operational know-how backed by a knowledge management platform.
- Seamless delivery experience through integrated service delivery model, on-site, on-shore and offshore – even where teams are not co-located – through end-to-end processes and tooling.
- Up to 24x7x365 highly responsive service to match your business needs.
- Minimised business disruption through IT Service Management capability and service-level management.
- Timely availability of required information and reports to business users.
- Faster resolution of production incidents in a governed fashion following the change process.
- Proactive management of system resources and system outage avoidance.
- Optimised performance of the system to improve usability and accessibility for end-users.

## 6. Technologies, Tools. Languages and Methods

- Cloud Platforms: Azure, AWS, Google, Oracle.
- Data Stores: Oracle, Informix, DB2, PostgreSQL, Microsoft Access, dBase, FoxPro, Microsoft Excel, Firebird, Interbase, MySQL, Microsoft SQL Server, SQL Server Azure, SQLite, MongoDB, Hadoop, Google Cloud, AWS.
- Files: XML, EDIFACT, CSV, Email messages, GZIP CSV, Json, LDAP, LDIF, MS Access, MS Excel, OPAL, SAP, Text.
- Programming languages: SQL \* Plus, PL/SQL, Shell scripting, C, VB.
- Analytics: Snowflake, Databricks, SAS, Oracle OLAP CUBE, Essbase, COGNOS Powerplay Transformer.
- BI: BOXI R3, OBIEE, COGNOS, LogiAnalytics, COGNOS Framework Manager, Power BI, Tableau.
- ETL tools: OWB, Azure Data Factory, AWS Glue, Matillion, ODI, DataStage, Pentaho Data Integration (PDI), Informatica PC, COGNOS DM, Talend, DFTK, SSIS.
- Incident tracking tools: JIRA, EPMO, J-Tracker, HP OpenView, Cherwell, Service Now
- Monitoring tools: Kibana, ElasticSearch, Splunk, Nagios, ELK, Moogsoft
- DevSecOps: Mastek DevACT Framework - An Agile, lightweight and iterative framework for the delivery of any DevSecOps transformation.

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