Mastek™

Trust. Value. Velocity

G-Cloud 14

Cloud-Based Discovery Service

Contents

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:

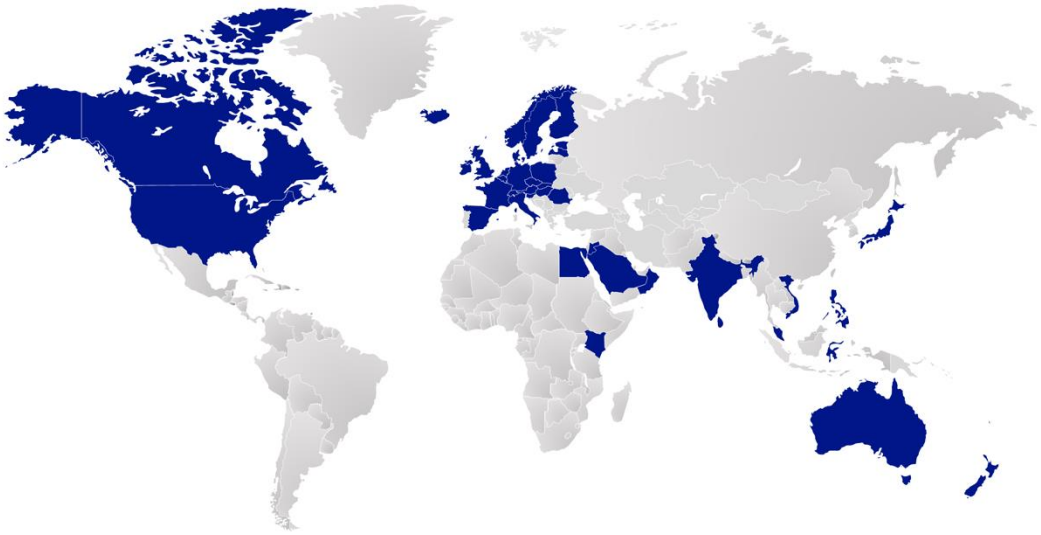
Working through a complex stakeholder landscape: We understand the importance of establishing effective communication channels, building trust, and fostering a collaborative working environment that empowers stakeholders to contribute meaningfully to the project's success. Our approach is based on a 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



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Philippines
Poland
Romania
Singapore
Slovakia
Spain
Sri Lanka
Sweden
Switzerland
United Arab Emirates (UAE)
United Kingdom
USA

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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 though 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 & 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 & 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 & migration • Legacy modernisation • Low code / no code App Dev • DevSecOps • Enterprise integration	• MACH • Digital commerce • UX & 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 & 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

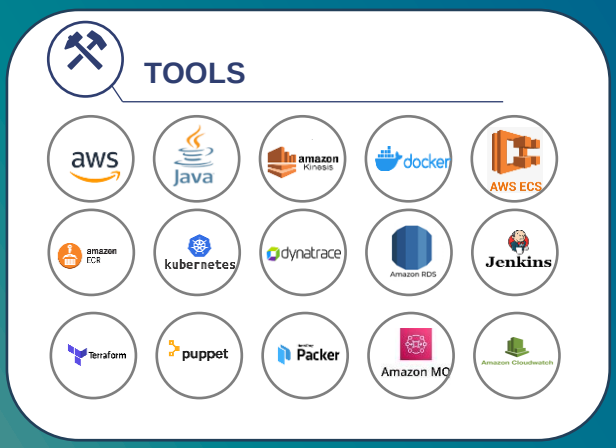
- Transition business-critical Platform services from incumbent supplier with minimal risk
- Migration from private cloud to AWS Cloud.

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:

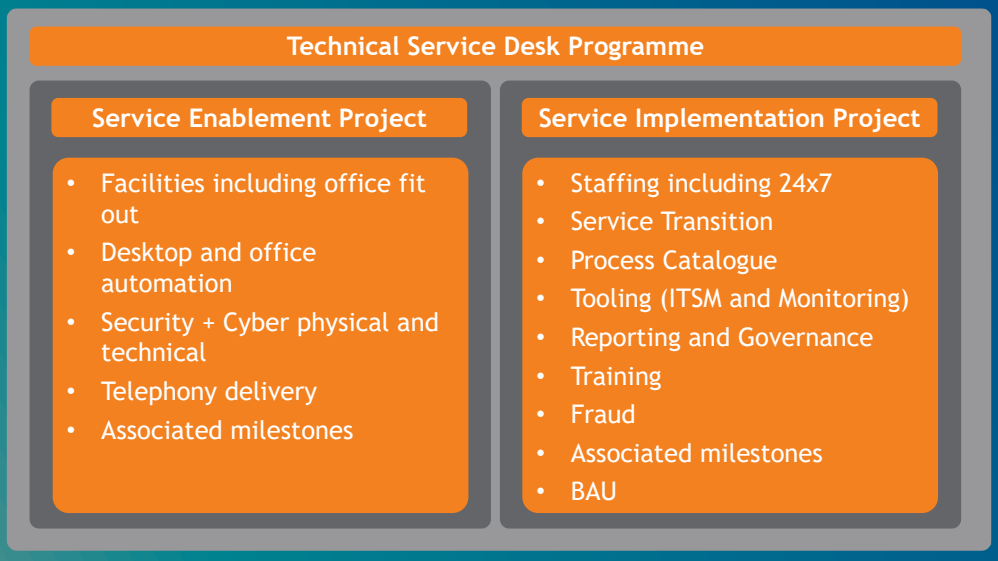
  - Service Management Vice President
  - Programme Director
  - Chief Technology Officer
  - Programme Management office lead.

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 & applications for Army Digital Services

Developed mobile app & 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

In the current wave of digital transformation, the Cloud is increasingly relied on as a vehicle for Agile, scalable and elastic solutions. For businesses to be able to provide better customer experience, efficient services, and gain competitive advantage while cutting costs, CIOs and other IT leaders need to constantly adapt their strategies to leverage cloud capabilities.

The Discovery phase plays a critical role when programmes for such changes and transformation are kicked off. Mastek is expert at delivering all the activities and outputs recommended for a discovery phase in the Digital Service Design Manual (GDS).

Mastek is an IIBA (International Institute of Business Analysis) corporate member, and our Business Analysis services are based on IIBA standards. As your Digital Partner, we collaborate, facilitate, advise and work closely with the business team, delivery teams, policy teams, and senior leadership to help them achieve their goals faster.

3. Masteks Service

At Mastek, our Business Analysts are also Business Technologists with knowledge of the latest technology trends, giving them an extra edge when it comes to helping customers understand the intricacies of different types of cloud services and in the evaluation of various cloud-based solutions options in the Discovery Phase.

Mastek business analysts have experience working with UK and USA clients in various domains, such as Government, Health, retail, and Financial Services. They exhibit leadership and empathy when dealing with multiple stakeholders and user bases.

Our cloud-based discovery service includes the following:

- Ensuring necessary approvals and budget are in place to start the Discovery.
- Identification and management of Target Market segments, stakeholders and competitors.
- Creating and promoting a collaborative environment across project teams, users and stakeholders.
- Comprehensive assessment of the existing IT infrastructure, applications, and processes
- Examining and Refining organisation strategy, goals and objectives and defining KPIs.
- Business process analysis with identification of pain areas and improvement.
- During the Discovery Phase, potential risks and challenges associated with the migration are identified and analysed
- Adopting a user-centric approach to gather user requirements.
- Reviewing Digital data and using digital analytics.
- Evaluation of solution architecture and solution options.
- Assisting in outlining the solution and technical architecture.
- Analysis of current cloud-based services and deployment models with recommendations for new ones.
- An application portfolio analysis is conducted to determine which applications are suitable for migration to the cloud.
- Recommendations on Overall project methodology, project plans and execution approach.
- Understanding the cost implications of migrating to the cloud is critical. The Discovery Phase involves analysing current IT costs and projecting future costs in the cloud environment.
- Inputs to Business Case refinement and validation.
- Based on the findings from the Discovery Phase, a migration strategy is developed.
- Finally, the Discovery Phase involves engaging stakeholders across the organisation to ensure alignment and buy-in for the cloud transformation initiative.

Illustrated below are insights and outputs of the entire Discovery phase:

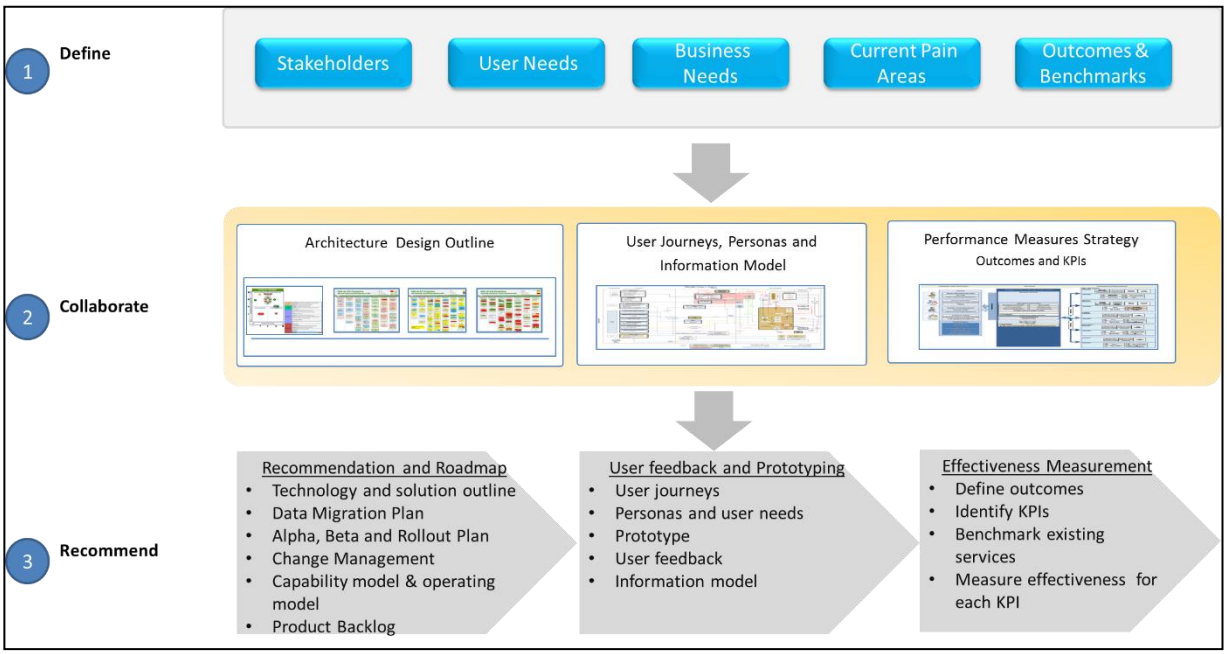


Figure 1: Discovery Phase Approach

Business needs

The key stakeholders in a service typically help define the business needs and service vision.

Our Program/Project Manager's BAs drive - Value, Mission, Objectives, Strategy, Tactics (VMOST) driven approach and ability to reach out to key stakeholders and various projects mean that we have an awareness of the wider business environment and understand the project deliverables, goals, stakeholders, overlap, dependencies and potential risks or issues which need attention. We know some assumptions or constraints may be made that will help empower the product owner to make decisions. We apply techniques such as interviews, workshops, competitor analysis, cloud vendor analysis, and analytics of the existing service to identify the business needs.

User needs

Our BA will work collaboratively with user researchers and product owners to identify key user groups and existing services, the issues they face, and the processes or journeys they may go through to achieve their goals. We identify the users and their needs by:

- Conducting first hand research by speaking to service users - verbally or using surveys.
- Creating and using prototypes, wireframes and user journeys.
- Using current digital analytics data, e.g. paths that users take on sites, where they drop off, and what the key search terms are (if available).
- Creating process maps that describe current ways of working.
- Analysing business reports and statistics of call centres (if available) to identify trends and common issues.

We also create high-level process maps, focusing on identifying pain points and issues and paying particular attention to areas that can affect the flow of information and could be considered the basis for a user's need.

Outcomes and measures

Benefit delivery will be iterated and refined over the discovery period. Our BA can help ensure a ‘common thread’ throughout, define critical success factors and identify the KPIs.

We focus on service vision and identify the goals with their benefits from a cost and quality perspective.

Discovery deliverables pack

The following standard deliverables are produced for the delivery phase:

- VMOST, where applicable.
- Capability model, target operating model, information architecture.
- Scope document and identification of success criteria.
- Product backlog with Minimal Viable Product and detailed out Alpha stories.
- User personas, User journeys, Wireframes, building (if possible) Proof of Concept to help business understand the 'Art of Possible'.
- Business design principles.
- Evaluating cloud computing solutions against business needs and current cost and future spend analysis.
- Solution Roadmap with properly defined immediate, tactical and strategic solutions.
- Creating As-Is Business Process models and proposing various options for To Be Business
- Models with regard to improvements, business reorganisation restructuring, where needed,
- and transitioning to cloud services.
- Context diagram.
- Analysis of business reports and statistics of the call centre (if available) to identify trends and common issues.
- Refined Business Case with Go/No Go Decision.

4. Key Features

- Business Context: Value, Mission, Objectives, Strategy, Tactics (VMOST) driven approach ensures context throughout the service design and delivery.
- Cost-and-benefit mindset: Ensure a fine balance between discovery activities (outcome-driven) and budget.
- Transparent and Collaborative Approach: We believe in collaboration and challenging requirements, solutions and approaches while maintaining inclusiveness. You will always know what's going on. Emphasis on whiteboarding, brown paper technique and expertise in tools such as Jira, confluence, and TFS.
- Consideration from a cyber security perspective.
- Helping customers understand the intricacies of different types of cloud services.
- User-centric approach: Extensive user research, workshops and interviews to identify user and business needs.
- Design thinking: Emphasis on proof of concept, wireframes, user journeys and personas;
- Mapping Business needs to cloud service types;
- Identification of applicable cloud service models and deployment models.
- Defining success criteria with metrics – clearly defined business outcomes.

5. Business Benefits

- The service vision, goals, and critical success factors are identified, and the roadmap for service delivery is recommended.
- Through our extensive user research, we identify user needs, personas, and journeys, which help create the product backlog for the expected service.
- A product backlog is created considering service vision, needs, assumptions, and constraints. It is then prioritised to properly arrive at the scope of each phase and scope for ‘Minimum Viable Service’.
- Expected outcomes are identified, and a strategy to measure service performance is created. Benchmarks for the existing service are identified along with the KPIs against which new service performance is measured.
- Functional and technical risks are identified, and considering those risks, solution and technical architecture are outlined.

6. Technologies, Languages, Methods and Vendor Support

1. SDLC Methodology: Waterfall, Agile, Scrum, Kanban, Scrumban, JAD.
2. Collaboration tools: Confluence, Jira, TFS, Trello.
3. Planning: Microsoft Assessment and Planning (MAP)
4. Modelling tools: Visio, Enterprise Architect, Confluence built-ins.
5. Designing and modelling techniques: UML, BPMN, CMMN, JIT Analysis, Story Mapping.
6. Vendor support: CAST Highlight, Microsoft Azure, Cloudamize, AWS, GCP, KTern.AI, CloudAtlas, CloudsIntel.

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