



Trust. Value. Velocity

G-Cloud 15

User Acceptance Testing (UAT) 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 contexts of high uncertainty and complexity, while collaborating across 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:

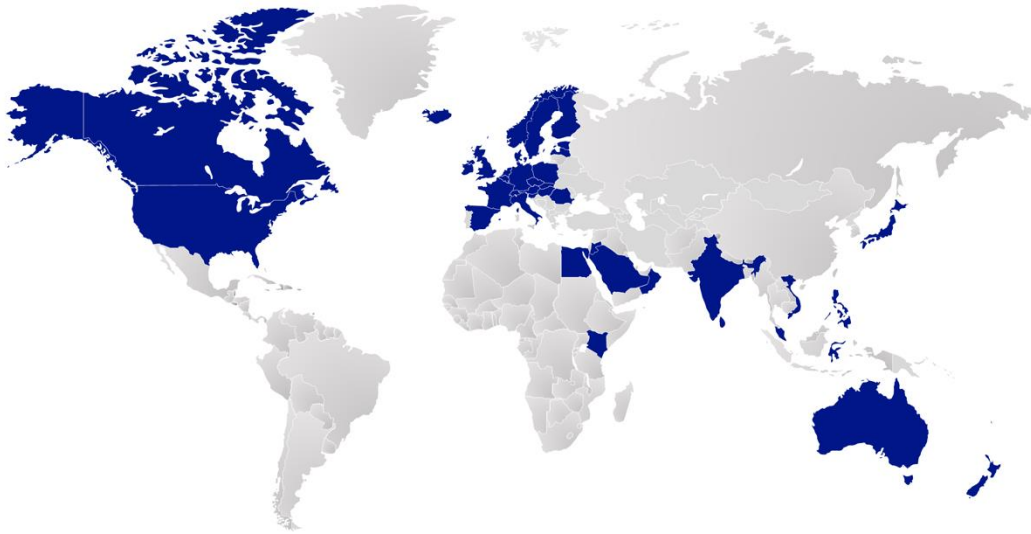
Working through a complex stakeholder landscape: We understand the importance of establishing effective communication channels, building trust and fostering a collaborative working environment that empowers stakeholders to contribute meaningfully to the project's success. Our approach is based on a deep 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, the Ministry of Defence and the NHS, we have a proven track record of working seamlessly with large stakeholder groups, including civil servants.

Standards, compliance: We comply with >20 policies and standards, including Government Digital Standards and the Government CDDO Service Toolkit, covering service standards, service manuals, TCoP and 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

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

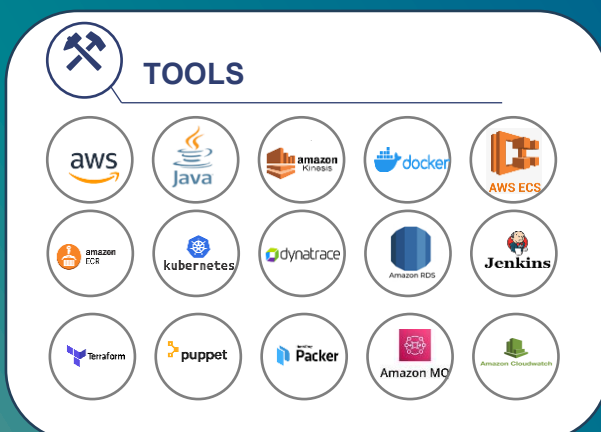
- Transition business-critical Platform services from incumbent supplier with minimal risk
- Migration from private cloud to AWS Cloud.

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:

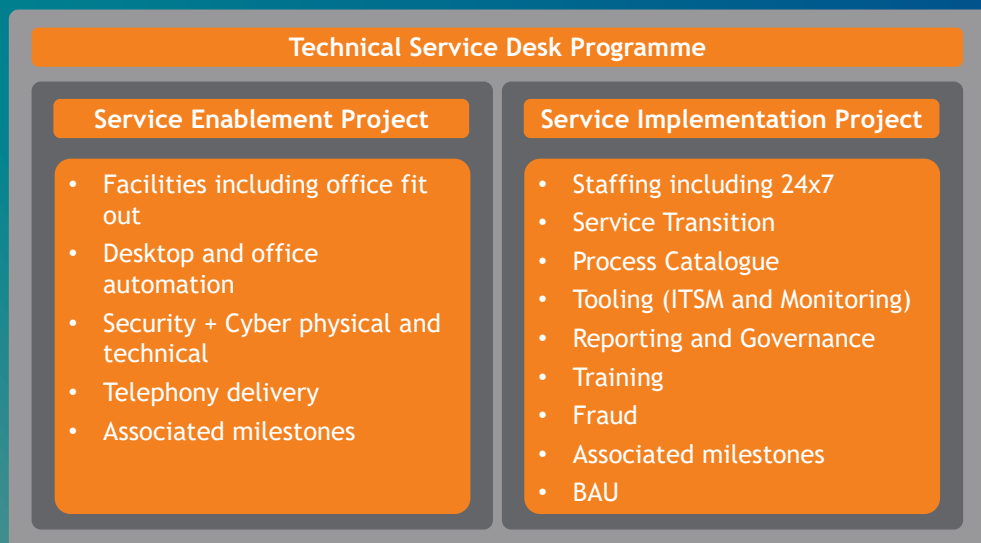
- Service Management Vice President
- Programme Director
- Chief Technology Officer
- Programme Management office lead.

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.

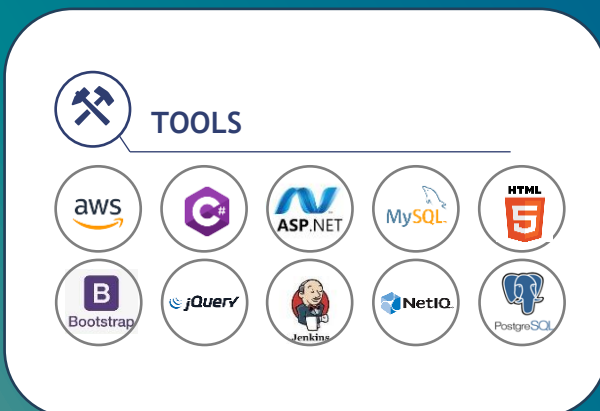
Solution

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

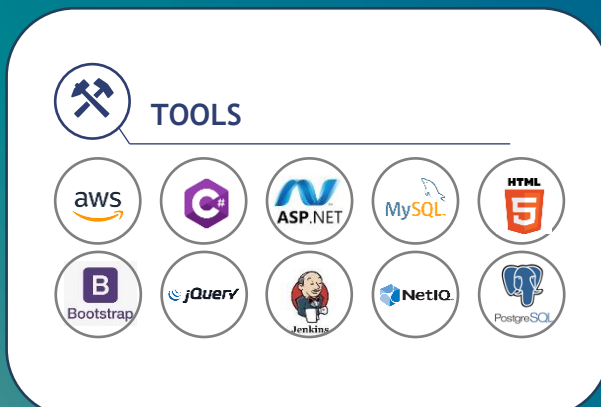
- Leveraging DevOps platform based on reusable GitHub, AWS and Azure DevOps Pipelines
- Introduce more flexible, scalable and reusable IaC capabilities
- Implement CI/CD pipelines.

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's User Acceptance Testing (UAT) Service ensures software meets user expectations through a structured, user-centric approach. Leveraging real-user testing, domain expertise and automation for repetitive tasks, we minimise post-release defects, accelerate adoption and deliver intuitive, high-quality applications aligned with business goals.

Furthermore, Mastek offers Thought Leadership, Advisory, Consulting, Strategy and Planning support, End-to-End User Acceptance Testing and Test Resource Augmentation services.

Mastek leverages its structured approach to User Acceptance Testing, rich domain expertise and flexible engagement models tailored to client requirements.

3. Masteks Service

User Acceptance Testing (UAT) validates functionality and usability from an end-user perspective in real-world conditions, ensuring alignment with acceptance criteria and business objectives. UAT focuses on verifying software functionality from a user's perspective, providing ease of use and alignment with pre-defined acceptance criteria. Our approach integrates risk-based prioritisation, AI-enabled test design for complex workflows and metrics-driven dashboards for full visibility.

Mastek has extensive experience providing UAT Services for SaaS and PaaS across domains and geographies. End-to-end user Acceptance Testing and Test Resource Augmentation are supported for both Agile and Traditional Implementation methodologies. We support SaaS, PaaS and enterprise applications across domains, leveraging Agile and CI/CD practices for faster feedback and delivery.

We work closely with our clients to create a UAT Strategy, plan UAT tests and execute them in alignment with the business goals and priorities. Mastek's test strategy is underpinned by the application's complexity and provides support for implementing a risk-based approach where required.

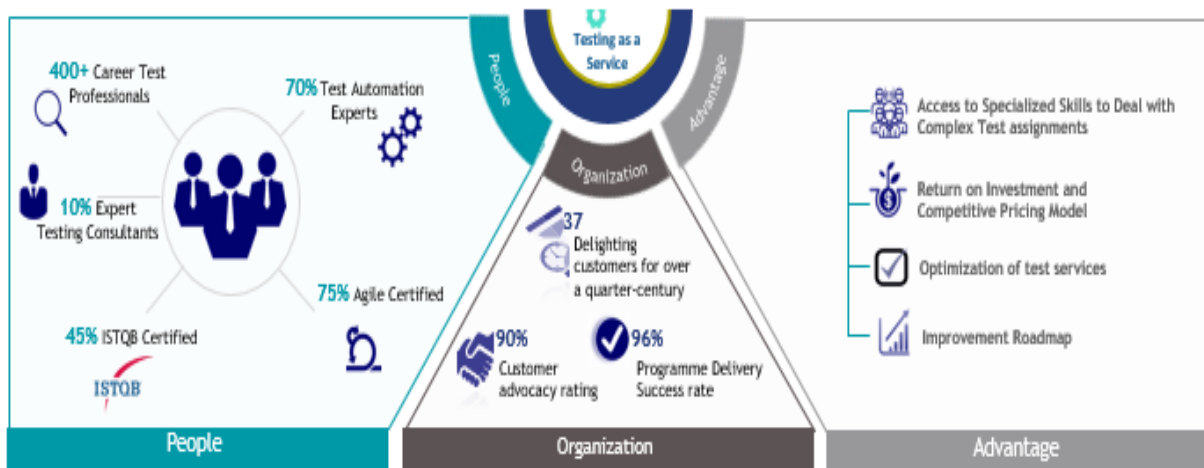


Figure 1: Testing as a Service

Our structured approach combines impact analysis, reusable test assets and automation accelerators to improve efficiency and reduce cycle time.

4. Key Features

Mastek offers a comprehensive range of features to ensure successful and efficient UAT services:

4.1 Thought leadership and advisory services

Our team offers UAT expertise, strategic guidance, thought leadership and advisory services throughout the testing process to optimise UAT efficiency and reduce risk.

4.2 Comprehensive UAT execution

We provide leadership, management, delivery and support for all your UAT requirements, ensuring a smooth, successful testing experience.

4.3 Consulting and planning services

We offer consulting services to define the UAT approach and plan that aligns perfectly with your project scope and user needs.

4.4 End-to-end UAT support

We provide comprehensive support across all stages of UAT, encompassing planning, designing, execution, reporting and defect management.

4.5 User-centric test case design

Test cases derived collaboratively with SMEs and end-users, reflecting real-world workflows.

4.6 Scalable UAT solutions

Our services are adaptable, scalable and compatible with traditional and Agile development methodologies.

4.7 Security-cleared test resource augmentation

We offer SC-cleared or eligible test resource augmentation to fulfil your specific UAT testing needs while maintaining security compliance.

4.8 User enablement

We support your business users by supplementing their knowledge with our testing expertise, fostering effective collaboration during UAT.

4.9 Data-driven testing

We provide verifiable results with clear data and documentation to support your UAT findings.

4.10 AI-driven test design

We accelerate automation coverage for complex UAT scenarios via our in-house test case design accelerator.

4.11 Test automation expertise

Automation for data-intensive UAT reduces effort and accelerates execution.

4.12 UAT environment setup support

We assist in setting up UAT environments that accurately replicate real-world conditions, facilitating effective user testing.

4.13 Test data management expertise

Our services encompass test data management to ensure you have the necessary data sets for comprehensive UAT testing.

5. Business Benefits

Mastek's User Acceptance Testing services have proven to offer the following benefits:

5.1 Enhanced user experience

UAT helps identify and resolve usability issues before release, resulting in a more intuitive, user-friendly software product that exceeds user expectations.

5.2 Improved software quality

Proactively identifying functional gaps and usability issues during UAT minimises post-release bugs and ensures a higher-quality software product.

5.3 Reduced development costs

Early defect detection reduces costly rework and post-release maintenance.

5.4 Effort reduction

Automation saves 30-40% effort for repetitive UAT tasks.

5.5 Increased user adoption

A user-centric approach fosters user satisfaction and promotes greater user adoption of the developed software.

5.6 Faster time to market

Efficient UAT processes minimise delays caused by unforeseen user issues, enabling a faster time-to-market for your software. Accelerates delivery by 15-20% through efficient UAT cycles.

5.7 Informed development decisions

UAT reports provide valuable insights into user behaviour and preferences, guiding future development efforts and product enhancements.

5.8 Risk-based testing for time-critical delivery

We leverage a risk-based testing approach to prioritise UAT efforts based on potential impact and vulnerability, ensuring efficient resource use and timely delivery, even under critical project timelines.

5.9 Reduced production failures

Proactive UAT significantly reduces the risk of failures in the production environment, minimising downtime and ensuring a more stable and reliable software experience for your users.

5.10 Testing expertise to mitigate resource constraints

We offer access to a pool of UAT testing SMEs (Subject Matter Experts) to bridge gaps in your internal testing resources, ensuring a skilled and experienced team for your UAT project.

5.11 Test asset reusability

We optimise UAT efficiency by leveraging reusable test assets from previous testing phases, minimising redundant test case creation and streamlining the testing process.

5.12 Structured approach with visibility

Our structured UAT approach, combined with metrics-driven dashboards, provides clear visibility into the testing process, progress and identified issues. This ensures informed decision-making throughout the UAT lifecycle. Metrics-driven dashboards provide real-time insights into UAT progress and risks.

5.13 Domain-driven test cases

Our team's domain expertise allows us to create business-oriented test cases that accurately reflect real-world user scenarios and industry-specific workflows, ensuring a comprehensive and relevant UAT experience.

6. Technologies and Methods

#	Technologies	Methods
1	Test Management Tools: Jira, Azure Boards, TestRail, HP ALM (Quality Centre).	Black Box testing.
2	Defect Management Tools: Jira, Azure Boards, Bugzilla.	Risk-based Testing, BlackBox testing.
3	AI-enabled accelerators for test case generation.	Agile testing, Black Box testing

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