

G-Cloud 14

Automated Oracle ERP Testing Service



Trust. Value. Velocity

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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.

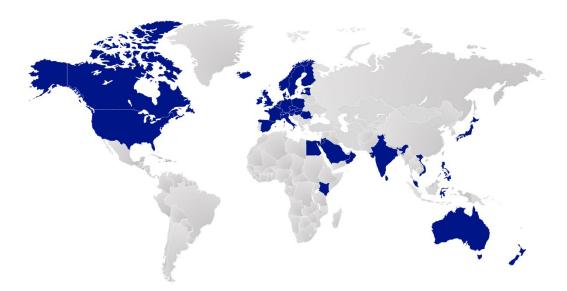
Standards, compliances: We comply with >20 policies and standards, including Government Digital Standards and Government CDDO Service Toolkit covering service standards, service manuals, TCoP, API technical and data standards. Our stringent governance, methods, playbooks, and processes (manual and automated) 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 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	engir	neering
and o	experi	ence

- Cloud engineering & migration
- Legacy modernisation
- Low code / no code App Dev
- DevSecOps
- Enterprise integration

- MACH
- Digital commerce
- UX & CX
- Platform engineering
- Gen Al software development.

Oracle Cloud and enterprise apps

- Oracle Cloud applications
- Oracle consulting
- Oracle Cloud infrastructure
- Value-based delivery
- Glide 4.0.

Data, automation and Al

- 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.

Technical Service Desk Programme

Service Enablement Project

- Facilities including office fit out
- Desktop and office automation
- Security + Cyber physical and technical
- Telephony delivery
- Associated milestones

Service Implementation Project

- Staffing including 24x7
- Service Transition
- Process Catalogue
- Tooling (ITSM and Monitoring)
- · Reporting and Governance
- Training
- Fraud
- Associated milestones
- ΒΔΙ

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:

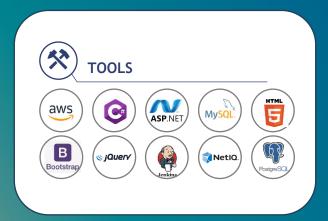
- Defence Gateway Landing Page
- My Leave App
- My Expenses App
- My Health App
- My Details App

- 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.

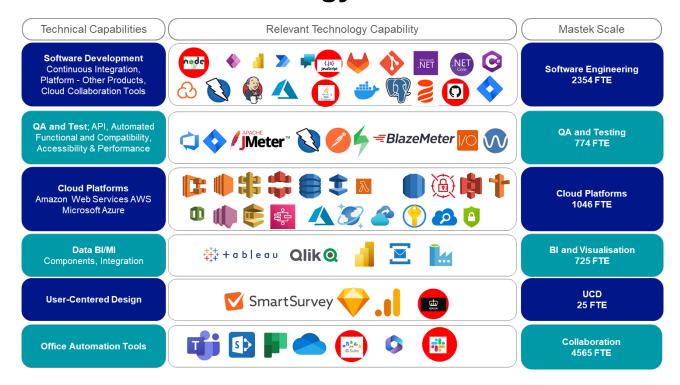
Outcome

- 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





2. Summary

Managing Oracle Enterprise Resource Planning (ERP) system deployments and upgrades can be a complex endeavour.

Our Opkey-based Oracle ERP Testing Services are designed to streamline and optimise your ERP testing processes. Leveraging Opkey's industry-leading, no-code test automation platform, we ensure comprehensive and efficient testing of your Oracle ERP applications, minimising risks and ensuring a smooth transition to your new system.



3. Mastek's Service

We offer a comprehensive suite of Oracle ERP testing services, leveraging Opkey's automation capabilities to deliver exceptional value:

- **Functional testing:** We ensure core functionalities like financials, inventory management, supply chain, and human resources operate flawlessly through automated test case execution.
- Regression testing: Rigorous regression testing safeguards the stability and functionality of your existing Oracle ERP system after quarterly upgrades or new module implementations/changes.
- **Integration testing:** We meticulously test the seamless integration of your Oracle ERP system with other critical business applications.
- Test management and reporting: Opkey facilitates centralised test case management, execution tracking, and insightful reporting, providing clear visibility into testing progress and results.



4. Key Features

Opkey's innovative test automation platform empowers us to deliver efficient and effective Oracle ERP testing services. Here are the key features of the Opkey platform:

- **No-code test automation**: Opkey's user-friendly interface allows business users and testers with minimal coding experience to create automated test cases quickly and intuitively.
- Minimal manual testing efforts: Opkey boasts a library of 4500+ pre-built test cases designed
 explicitly for core Oracle ERP functionalities, providing a robust foundation for your testing
 suite.
- Improved test coverage: Opkey's capabilities enable the creation of a wider range of test
 cases, encompassing complex workflows and edge cases that might be missed in manual
 testing.
- Official tool partnership: As an official Opkey tool partner, we possess in-depth platform knowledge and can provide expert guidance throughout your Oracle ERP testing journey.
- Extensive Opkey knowledge: Our team comprises over 20+ Opkey Certified Professionals and 100+ Opkey Trained Professionals, ensuring a highly skilled workforce to deliver exceptional Opkey-based testing services.
- **Discounted license rates**: Through our partnership with Opkey, we can potentially offer you discounted Opkey license rates, optimising your testing budget.
- Proven automation experience: Benefit from our two decades of experience in test automation, ensuring we can design and implement effective test automation strategies for your Oracle ERP system.
- **Self-healing script technology**: Opkey's self-healing script technology automatically detects and repairs minor script issues that may arise during test execution due to application changes. This minimises maintenance efforts and ensures the ongoing reliability of your automated tests.
- **Impact analysis for upgrades**: Opkey provides an impact analysis report with each scheduled Oracle ERP upgrade. This report identifies functionalities and tests likely to be affected by the upgrade, guiding your testing efforts and optimising resource allocation.
- Oracle ERP performance testing: Opkey enables performance testing of your Oracle ERP system, assessing response times and system behaviour under load and identifying potential bottlenecks. This helps ensure optimal system performance for your end-users.
- **Cross-browser testing**: Execute UAT and regression tests across different web browsers to guarantee a consistent user experience for all users accessing your Oracle ERP system.
- Scalability and flexibility: Opkey's cloud-based platform scales to accommodate your growing testing needs and adapts to various Oracle ERP modules and functionalities you utilise.
- **Reporting and analytics**: Our comprehensive test reports provide detailed insights into test execution results, identified defects, and overall test coverage.



5. Business Benefits

Partnering with Mastek for Opkey-based Oracle ERP Testing Services unlocks a multitude of benefits:

- **Reduced risks**: Automated testing minimises human error and ensures thorough test coverage, leading to a more stable and reliable Oracle ERP deployment.
- **Faster time to value**: Streamlined testing processes with Opkey accelerate release cycles, allowing you to capitalise on the benefits of your new Oracle ERP system sooner.
- **Improved quality and efficiency**: Opkey empowers efficient test case creation, execution, and reporting, leading to higher quality deployments and improved testing team productivity.
- Streamlined test execution: Opkey automates repetitive testing tasks by seamlessly integrating with your Oracle ERP environment, freeing up valuable tester resources for higher-level activities and ensuring consistent test execution.
- Reduced testing costs: Opkey significantly reduces the time and resources required for Oracle ERP testing, resulting in substantial cost savings compared to manual testing approaches.
- **Enhanced agility**: Opkey facilitates rapid test case creation and execution, enabling your organisation to adapt to evolving business needs and respond to changing market dynamics.
- **Scalability and flexibility**: Opkey's cloud-based platform scales to accommodate your growing testing needs and adapts to various Oracle ERP modules and functionalities you utilise.



6. Technologies, Languages, Methods and Vendor Support

#	Technologies	Languages	Methods	Vendor support
1	Opkey test Automation tool	Low code, no code.	Agile, CI/CD, Shift Left, Risk-based Testing.	Yes

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