



Trust. Value. Velocity

G-Cloud 15

Automated Oracle ERP Testing 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 (both 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, being transparent, leading to enablement, 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.

Delivered 20+ successful projects
Automated deployment
Savings annually

- Zero Downtime
- Environment creation in hours.

Delivered
Department for Health
Delivered capability supported
traced millions

Problem

- Leveraging DevOps platform based on reusable Pipelines
- Introduce more flexible, scalable and reusable IaC capabilities





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

Managing Oracle Enterprise Resource Planning (ERP) system deployments and upgrades can be a complex endeavour. Mastek's AI-infused approach brings Generative and Agentic AI into the Software Test Lifecycle (STLC), combining no-code automation with intelligent orchestration to deliver faster cycles and higher quality.

Our Oracle ERP Testing Services are designed to streamline and optimise your ERP testing processes. Leveraging Opkey or our in-house AI-based test automation and Oracle Fusion reusable test scripts, we ensure comprehensive and efficient testing of your Oracle ERP applications, minimising risks and ensuring a smooth transition to your new system.

Our in-house Test automation accelerator powers AI-enabled test script generation with NLP/VIBE coding, intelligent self-healing and adaptability and smart test orchestration across multi-browser environments with efficient parallel execution. This integrates seamlessly with CI/CD, delivers robust, nonflaky scripts and minimises maintenance effort.

3. Mastek's Service

We offer a comprehensive suite of Oracle ERP testing services, leveraging Opkey's and our in-house test automation accelerator using NLP-based Intelligent test automation capabilities to deliver exceptional value:

- **Functional testing (AI-assisted):** We ensure core functionalities like financials, inventory management, supply chain and human resources operate flawlessly through automated test case execution using Opkey's AI-driven no-/low-code accelerators or using our in-house test automation NLP-based script execution.
- **Regression testing:** Rigorous AI-prioritised regression safeguards the stability and functionality of your Oracle ERP system after quarterly upgrades or new module changes by leveraging Opkey's impact analysis and automated suite optimisation, or with our in-house test automation enabling self-healing scripts, smart orchestration and detailed failure insights.
- **Integration testing:** We meticulously test the seamless integration of your Oracle ERP system with other critical business applications using Opkey's centralised integration libraries and AI-driven data builders, or with our in-house accelerator, agentic flows for UI/API handoffs and resilient cross-system automation.
- **Test management and reporting:** Opkey facilitates centralised test case management, execution tracking and insightful reporting for complete visibility into testing progress and results, while our in-house accelerator complements this with rich run-level artefacts such as HTML reports, trace viewer, video captures and AI-summarised failure insights, enabling faster triage and governance
- **AI-Enabled Test Automation Strategy and Implementation:** We orchestrate the entire test automation lifecycle by integrating generative and agentic AI for intelligent test script and data generation.
- **Development and Consulting:** We have trained professionals who can guide in automation development and do consulting activities.

4. Key Features

Our innovative test automation platforms empower us to deliver efficient and effective Oracle ERP testing services. Here are the key features of our platforms:

- **No-code test automation:** Opkey's AI-Powered platform and user-friendly interface allows business users and testers with minimal coding experience to create automated test cases quickly and intuitively, while Mastek's NLP-based automation framework converts natural language (VIBE/NLP) into robust scripts with self-healing capabilities.
- **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. Reusable scripts built on Mastek's in-house NLP-based automation framework reduce authoring time and maintenance overhead.
- **Improved test coverage:** AI-assisted generation of complex workflows and edge cases ensures broader coverage; smart orchestration and parallel execution for stability.
- **Official tool partnership:** As an official Opkey tool and Microsoft partner, we possess in-depth platform knowledge and can provide expert guidance throughout your Oracle ERP testing journey.
- **Extensive Tool knowledge:** Our team comprises over 100+ Opkey Certified Professionals and 200+ Opkey Trained Professionals, 100+ Playwright Professionals, ensuring a highly skilled workforce to deliver exceptional test automation 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:** Both platforms leverage AI to repair selectors and stabilise scripts against UI changes, minimising flakiness.
- **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. Our NLP-based automation framework prioritises critical paths for faster regression cycles.
- **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. Mastek's in-house framework adds distributed execution, parallel runs and smart orchestration across browsers, delivering high performance and flexibility for complex enterprise environments.
- **Reporting and analytics:** Our comprehensive test reports provide detailed insights into test execution results, identified defects and overall test coverage.

5. Business Benefits

Our Oracle ERP Testing Services unlock 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, accelerate release cycles, allowing you to capitalise on the benefits of your new Oracle ERP system sooner. Mastek's NLP-driven script generation shortens automation timelines
- **Improved quality and efficiency:** Efficient test case creation, execution and reporting, leading to higher quality deployments and improved testing team productivity. Self-healing scripts and smart orchestration deliver higher quality deployments and boost team productivity.
- **Streamlined test execution:** Repetitive testing tasks, seamlessly integrating with your Oracle ERP environment, freeing up valuable resources for higher-level activities and ensuring consistent test execution. Distributed runs, rich artefacts (HTML reports, trace viewer) and AI-summarised failure insights - ensuring consistent, reliable execution.
- **Reduced testing costs:** Significant reduction in time and resources required for Oracle ERP testing, resulting in substantial cost savings compared to a conventional manual testing approach. Minimal maintenance with self-healing and optimised execution speed - resulting in substantial cost savings.
- **Enhanced agility:** Rapid test case creation and execution, enabling your organisation to adapt to evolving business needs and respond to changing market dynamics. Quick adaptation through prompt-based script authoring and flexible browser/device coverage - helping you respond to changing business needs.
- **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. Our in-house NLP-based test automation features distributed execution and smart orchestration across environments, ensuring enterprise-grade scalability.
- **Rapid Script Generation and Adaptability:** NLP-driven VIBE coding and AI-powered script generation accelerate automation, reduce human error and adapt quickly to application changes.
- **Robust, Non-Flaky Automation:** Intelligent self-healing and smart orchestration deliver reliable, stable scripts with minimal maintenance.

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
2	Playwright Automation tool	TypeScript, JavaScript,	Agile, CI/CD, NLP-Driven Automation	No

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