



Trust. Value. Velocity

G-Cloud 15

Enterprise Architecture Technical Artefact Creation
and Review 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.

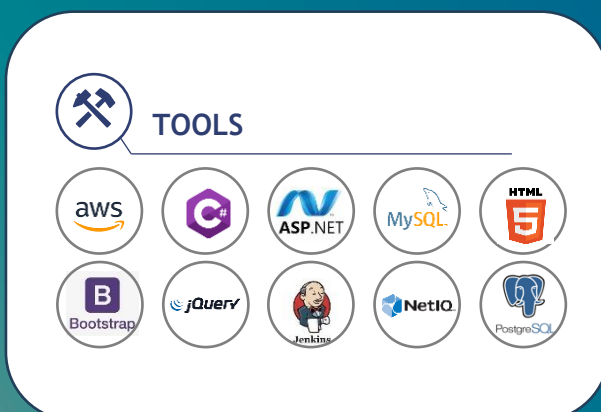
Solution

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.

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

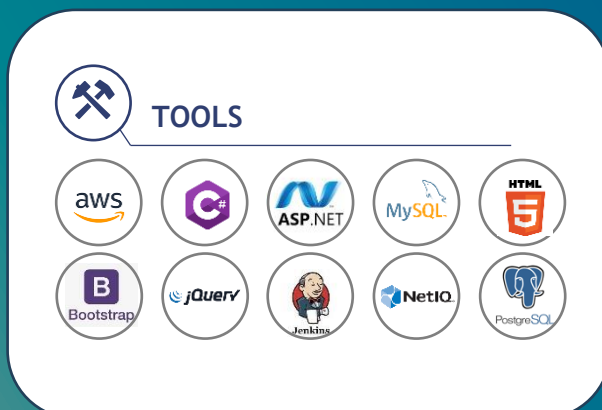
- Leveraging DevOps platform based on reusable GitHub, AWS and Azure DevOps Pipelines
- Introduce more flexible, scalable and reusable IaC capabilities
- Implement CI/CD pipelines.

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

Enterprise Architecture Technical Artefact Creation and Review Service is Mastek's comprehensive solution for organisations seeking to ensure that all technical architecture artefacts, models, diagrams, standards, patterns and documentation are created, validated and maintained to the highest standards of quality, compliance and strategic alignment.

This service provides a structured, repeatable approach to author, review and enhance technical artefacts, supporting better decision-making, audit readiness and successful project delivery. Mastek's methodology combines best-practice frameworks, automated tooling, expert review and continuous improvement to deliver artefacts that are actionable, audit-ready and aligned with business and regulatory requirements.

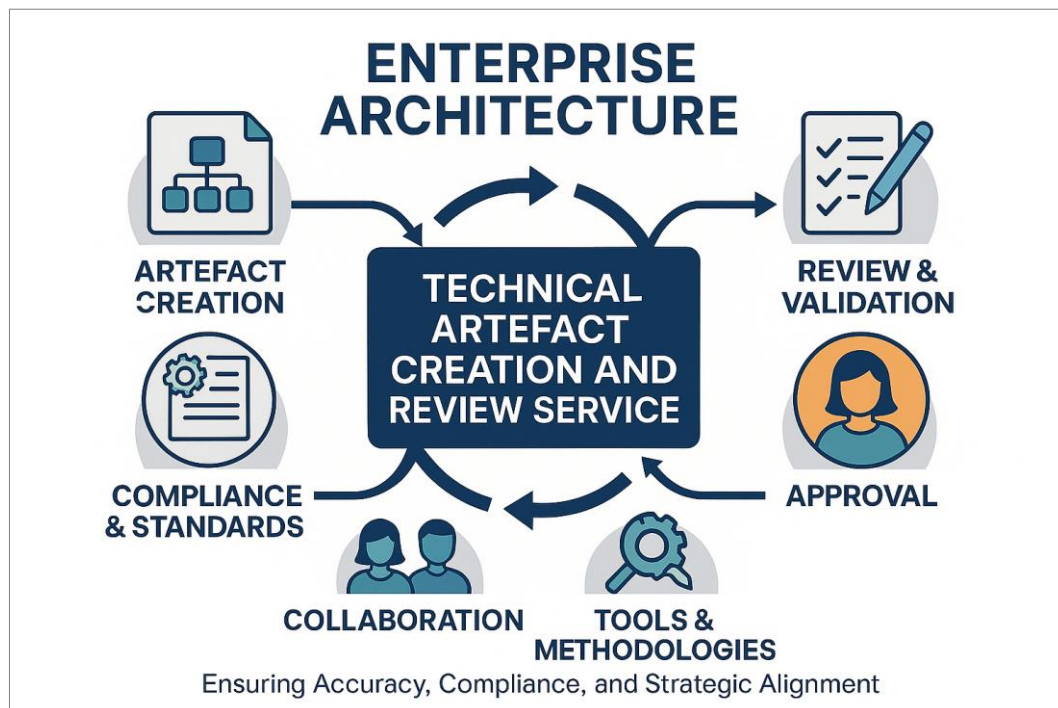


Figure 1: Enterprise Architecture

3. Masteks Service

3.1 Artefact Creation and Authoring

- **Requirements analysis:** Collaborate with stakeholders to capture and clarify technical requirements, compliance needs and business objectives.
- **Template and standards application:** Use TOGAF-aligned templates, naming conventions and metadata standards to ensure consistency and traceability.
- **Artefact authoring:** Create a full suite of technical artefacts, including architecture models (BDAT), sequence diagrams, interface contracts, data flow diagrams, deployment blueprints, security patterns and operating models.
- **Cross-domain coverage:** Ensure artefacts span business, data, application, technology, security, integration and compliance domains.

3.2 Review and Validation

- **Automated quality checks:** Use policy-as-code and validation tools to check artefacts for completeness, accuracy, compliance and adherence to standards.
- **Expert peer review:** Senior architects conduct deep-dive reviews for technical soundness, strategic fit and clarity.
- **Gap analysis:** Identify missing, outdated, or inconsistent artefacts; map gaps to project and compliance risks.
- **Stakeholder workshops:** Engage business, IT and compliance stakeholders to validate artefact relevance and usability.

3.3 Remediation and Enhancement

- **Targeted Remediation:** Update, refine, or create missing artefacts to close gaps and ensure all required views are present.
- **Standardisation:** Align artefacts to reference models, templates and best practices for reusability and auditability.
- **Version Control:** Implement robust versioning, change tracking and approval workflows for all artefacts.

3.4 Governance and Continuous Improvement

- **Quality Framework:** Establish policies, checklists and automated gates for artefact creation, review and approval.
- **Lifecycle Management:** Define processes for artefact versioning, retirement and periodic refresh.
- **Audit Readiness:** Prepare artefacts for internal and external audits, ensuring evidence packs and traceability.
- **Continuous Improvement:** Regular reviews, feedback loops and training to maintain high standards.

3.5 Enablement and Reporting

- **Dashboards and Analytics:** Real-time dashboards for artefact status, quality scores, completeness metrics and audit readiness.

- **Reporting:** Automated generation of quality reports, gap analyses and remediation plans for leadership and audit teams.
- **Training and Playbooks:** Enablement materials for architects and business users to sustain artefact quality.

4. Key Features

- **End-to-end architecture artefact lifecycle management** covering creation, authoring, review, approval and retirement across all architecture domains, including Business, Data, Application, Integration, Technology, Security and Cloud Architecture.
- **TOGAF-aligned templates, standards and metamodels** to ensure consistency, reusability and traceability from strategic objectives through capabilities, solution designs and implementation artefacts.
- **Automated quality assurance and policy-as-code validation**, embedding architectural principles, non-functional requirements and compliance rules directly into review workflows to reduce manual effort and improve accuracy.
- **Expert peer reviews and structured stakeholder engagement**, enabling cross-functional alignment across business, delivery, security and operations teams and ensuring architectural decisions are well-informed and endorsed.
- **Architecture gap analysis and targeted remediation planning**, identifying deviations from the target state, technical debt and risk hotspots, with prioritised actions aligned to business value and delivery roadmaps.
- **Robust version control, change tracking and approval workflows**, providing full transparency over artefact evolution, decision rationale and ownership across distributed teams.
- **Comprehensive governance framework**, including architecture policies, design checklists, review boards and approval gates, ensuring consistent decision-making and adherence to enterprise and regulatory standards.
- **Audit readiness and evidence pack preparation**, supporting internal audits, external assurance and regulatory assessments through structured documentation, traceability matrices and decision logs.
- **Real-time dashboards and analytics**, offering visibility into artefact quality, review status, compliance levels and risk trends to support proactive governance and executive reporting.
- **Training, coaching and enablement programs**, equipping architecture and delivery teams with the skills, tools and best practices required to sustain high-quality artefact creation and continuous improvement.

5. Business Benefits

- **Improved project delivery:** High-quality artefacts accelerate solution design, reduce project risk and improve delivery outcomes.
- **Reduced risk:** Early identification and remediation of gaps and inconsistencies minimise business, technical and compliance risks.
- **Audit readiness:** Artefacts are always ready for internal and external audits, reducing last-minute effort and risk.
- **Enhanced compliance:** Alignment with industry standards and regulatory requirements.
- **Operational efficiency:** Automated validation and standardised templates reduce manual effort and errors.
- **Stakeholder confidence:** Transparent reporting and dashboards build trust with leadership and regulators.
- **Continuous improvement:** Ongoing reviews and enablement drive sustained quality and value.
- **Strategic alignment:** Ensures artefacts directly support business goals and technology roadmaps.
- **Cost optimisation:** Eliminates redundant artefacts, reduces maintenance overhead and streamlines governance.

6. Technologies, Languages, Methodologies and Vendor Support

#	Technologies	Languages	Methodologies	Vendor Support
1	ArchiMate, TOGAF Tooling, Sparx EA, LeanIX	ArchiMate, UML, BPMN	TOGAF, ArchiMate, SABSA, BIAN	Open Group, Sparx Systems, LeanIX
2	Automated Validation Tools (EA Quality Analyser, Custom Scripts)	Python, Java, JavaScript	Quality Gates, Automated Checks, CI/CD	EA Analyser, Custom, Open Source
3	SharePoint, Confluence, Jira, ServiceNow	HTML, Markdown, REST	Collaboration, Documentation, Workflow Automation	Microsoft, Atlassian, ServiceNow
4	Power BI, Tableau, Looker	SQL, DAX	Analytics, Reporting, KPI Tracking	Microsoft, Tableau, Google
5	OPA, Azure Policy, Policy-as-Code Engines	Rego, JSON, YAML	Policy-as-Code, Governance, Compliance Automation	Open Policy Agent, Microsoft
6	Audit Management Platforms (MetricStream, RSA Archer)	REST, XML	Audit Readiness, Evidence Packs, Traceability	MetricStream, RSA Archer

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Mastek UK Ltd.
100 Brook Drive, Green Park,
Reading, Berkshire
RG2 6UJ
+44 (0)118 903 5700
Email: g-cloud@mastek.com

