



Trust. Value. Velocity

G-Cloud 15

Agile Delivery Training for Cloud Systems 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:

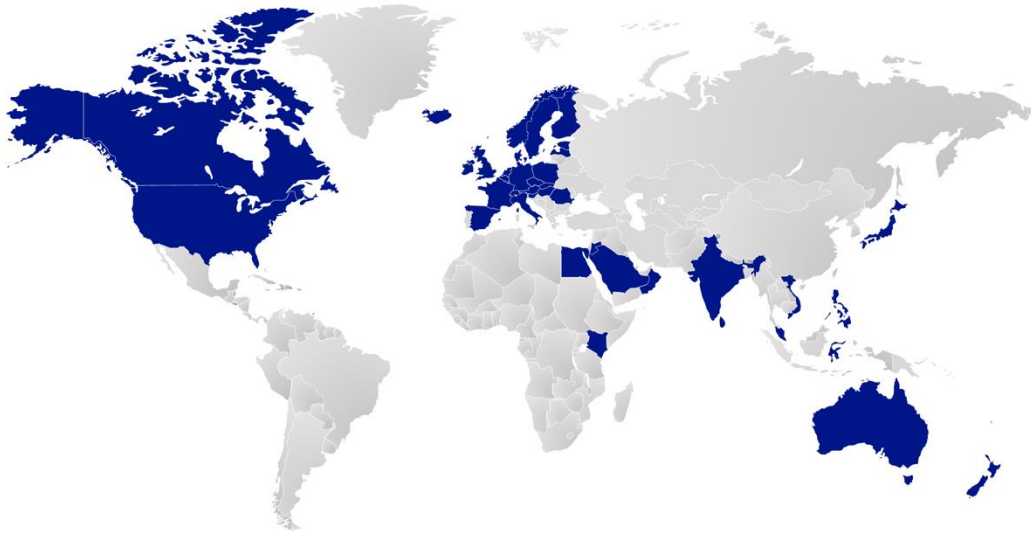
Working through a complex stakeholder landscape: We understand the importance of establishing effective communication channels, building trust and fostering a collaborative working environment that empowers stakeholders to contribute meaningfully to the project's success. Our approach is based on a deep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

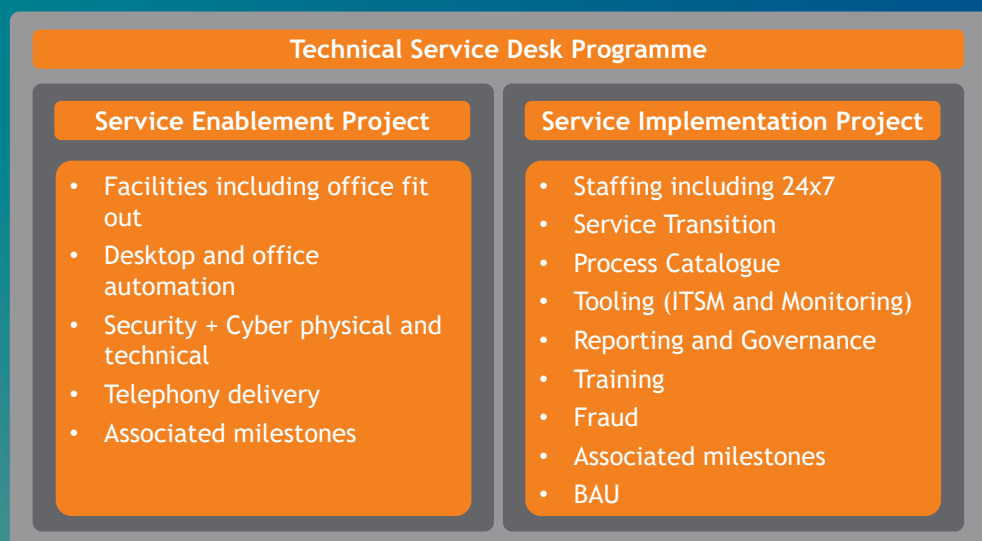
- Service Management Vice President
- Programme Director
- Chief Technology Officer
- Programme Management office lead.

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.

Completed 20+ successful projects
Automated Deployment Automation
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

Mastek's Agile Delivery Training for Cloud Systems offers a comprehensive curriculum covering Agile fundamentals, advanced techniques and best practices tailored for delivering cloud-based solutions efficiently and effectively. Participants benefit from expert-led training sessions delivered by experienced instructors with deep expertise in Agile methods and cloud systems delivery. Through interactive workshops, exercises and real-world case studies, participants gain practical experience and learn how to apply Agile principles and practices in their projects and organisations.

Our consulting service line provides a set of advanced courses for all roles and skills required to develop cloud-based systems. These are either role-specific or focus on specific areas where specialism and deep understanding are needed.

Our training caters to professionals at different proficiency levels, providing intermediate and advanced sessions.

3. Mastek's Service

Mastek offers comprehensive training programs designed to ensure participants grasp the processes and requirements outlined in the Government Service Design Manual and adhere to the GDS Digital-by-Default standard. Our courses cover fundamental principles and advanced concepts, including uncertainty management and objective impact mapping, essential for effective Agile delivery within cloud systems.

We aim to equip professionals across the software development lifecycle with the necessary skills to confidently navigate Agile delivery in cloud systems. Through expert-led training, participants acquire the knowledge needed to achieve successful outcomes in today's dynamic digital landscape.

Our Agile delivery training for cloud systems is especially relevant for the following roles:

- **Project Managers and Scrum Masters:** Receive insights into project management methods and Scrum principles adapted for cloud-based Agile delivery environments.
- **Product Owners:** Learn techniques to maximise product value by prioritising features, collaborating with stakeholders and adapting to market dynamics in cloud-driven Agile ecosystems.
- **Business Analysts:** Develop skills in eliciting and analysing requirements in cloud-based Agile projects, aligning with organisational goals and stakeholder expectations.
- **Developers:** Deepen understanding of cloud-native development practices, leveraging Agile methods to deliver effective, scalable, resilient cloud solutions.
- **Testers:** Acquire advanced testing techniques specific to cloud-based Agile delivery, ensuring product quality and reliability in dynamic cloud environments.

Our training curriculum covers core Agile concepts, including backlogs, user stories, sprint planning, team roles, Scrum, stand-ups, retrospectives, backlog grooming, and burndown charts, ensuring participants are equipped with the necessary skills to drive successful outcomes in today's dynamic digital landscape.

4. Key Features

Courses can be delivered for different team sizes and run over different durations. They can be tailored for different roles, including:

4.1 Agile Fundamentals

- Introduction to Agile methods and their principles.
- Overview of Agile frameworks (Scrum, Kanban, Scaled Agile, etc.) and their differences.
- Understanding the Agile manifesto and its values.
- Exploring the role of the Agile team: Product Owner, Scrum Master and Development Team.
- Introduction to user stories and how they drive Agile development.
- Overview of Agile ceremonies: sprint planning, daily stand-ups, sprint review and sprint retrospective.

4.2 Agile Planning and Execution

- Deep dive into Agile planning techniques, including creating and grooming the product backlog.
- Understanding sprint planning meetings and establishing sprint goals.
- Overview of story-point estimation and velocity tracking.
- Practical exercises on creating user stories, defining acceptance criteria and estimating story points.
- Introduction to Kanban boards and visualising workflow.
- Tips for effective Agile execution and managing sprint progress.

4.3 Agile Development Practices

- Introduction to test-driven development (TDD) and continuous integration (CI).
- Overview of Agile engineering practices: pair programming, refactoring and test automation.
- Understanding the importance of code quality and technical debt management.
- Hands-on coding exercises to practice TDD and pair programming techniques.
- Exploring tools and frameworks to support Agile development practices.
- Strategies for integrating testing and deployment into Agile workflows.

4.4 Agile Collaboration and Communication

- Importance of collaboration and communication in Agile teams.
- Techniques for effective stakeholder engagement and feedback collection.
- Overview of Agile metrics and progress tracking.
- Role-playing exercises to simulate Agile team interactions, stakeholder meetings and feedback sessions.
- Strategies for managing conflicts and fostering a culture of continuous improvement.
- Tips for effective communication within distributed Agile teams.

4.5 Agile Scaling and Continuous Improvement

- Understanding challenges and strategies for scaling Agile across larger organisations.
- Introduction to Agile frameworks for scaling, such as SAFe, LeSS and Nexus.
- Overview of Agile transformation and change management.
- Practical exercises on applying Agile scaling frameworks to real-world scenarios.
- Strategies for fostering a culture of continuous improvement and innovation.
- Final reflections and action planning for applying Agile principles and practices in participants' organisations.

Each subject combines theoretical concepts with practical exercises and discussions to ensure participants gain a deep understanding of Agile principles and how to apply them effectively in their projects and organisations.

Optionally, we can provide a one-day session as a deep dive into story-point estimating.

4.6 Deep Dive into Estimation Techniques

- Review Agile estimation principles and why accurate estimation is essential for project success.
- Introduction to various estimation techniques, including planning poker, affinity estimation and relative sizing.
- Hands-on workshops and exercises focused on practising estimation techniques.
- Discussion on factors influencing estimation accuracy and how to mitigate estimation risks.
- Case studies and real-world examples illustrating the impact of accurate estimation on project planning and delivery.

This additional day enables participants to delve deeper into estimation practices, refine their skills through practical exercises, and gain insights into strategies for enhancing estimation accuracy in Agile projects. It provides an opportunity for participants to address any specific challenges or questions they may have regarding estimation in their projects or organisations.

Finally, follow-on coaching and support are available.

5. Business Benefits

- **Meet user needs:** Effectively understand and prioritise user requirements, ensuring products and services align with user expectations and deliver maximum value.
- **Faster return on investment:** Accelerate time-to-market and realise ROI sooner by leveraging Agile methods to deliver incremental improvements and features.
- **Lower cost of ownership:** Reduce overall project costs and total cost of ownership by adopting Agile practices that optimise resource utilisation and minimise waste.
- **Visibility and control of costs:** Gain transparency into project costs and resource allocations, enabling better cost management and decision-making.
- **Appropriate reporting and feedback:** Establish mechanisms for timely and relevant reporting and feedback loops, facilitating continuous improvement and alignment with project goals.
- **Appropriate for all sizes of cloud solutions:** Tailor Agile delivery approaches to suit the scale and complexity of cloud solutions, from small-scale deployments to enterprise-level architectures.
- **Reduced risks and better risk management options:** Proactively identify and mitigate project risks through iterative development, frequent feedback and adaptive risk management strategies.
- **Flexible commercial options:** Explore flexible pricing and delivery models that accommodate varying organisational needs and budget constraints.
- **Measurable success and KPIs:** Define clear success criteria and key performance indicators (KPIs) to measure project progress and outcomes, enabling continuous evaluation and optimisation.

These benefits collectively equip organisations with the knowledge, skills and confidence to navigate the complexities of Agile delivery in cloud systems and drive successful outcomes in today's dynamic digital landscape.

6. Technologies and Methods

#	Technologies	Methods
1	Jira	Agile
2	Jenkins	Kanban
3	Confluence	Scrum
		TDD
		CI/CD

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