



Trust. Value. Velocity

G-Cloud 15

Level 3 Service Support 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:

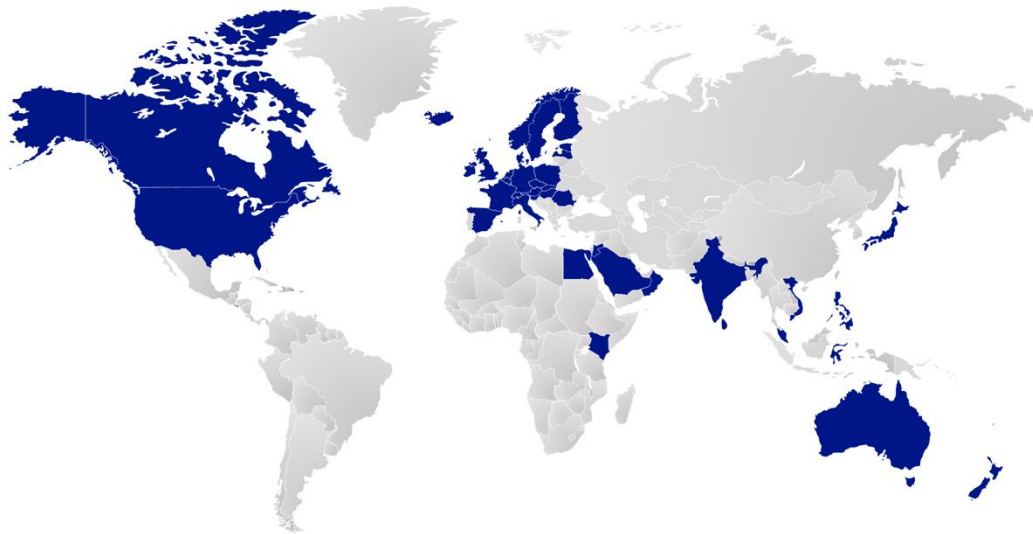
Working through a complex stakeholder landscape: We understand the importance of establishing effective communication channels, building trust, and fostering a collaborative working environment that empowers stakeholders to contribute meaningfully to the project's success. Our approach is based on a 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 (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 & 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 engineering and experience	• Cloud engineering & migration • Legacy modernisation • Low code / no code App Dev • DevSecOps • Enterprise integration	• MACH • Digital commerce • UX & 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 & 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 & 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

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 **Level 3 Service Support** ensures resilient, secure, and cost-efficient operations for mission-critical cloud environments. Delivered as part of our Agile Service Management (ASM) framework, this service combines DevSecOps practices with ITIL best practices to provide proactive monitoring, rapid incident resolution, and continual improvement. With proven experience across UK Government and Healthcare, Mastek guarantees SLA-driven performance, automation-led efficiency, and seamless integration with your service ecosystem.

Below is a summary of our Agile Service Management (ASM) service.

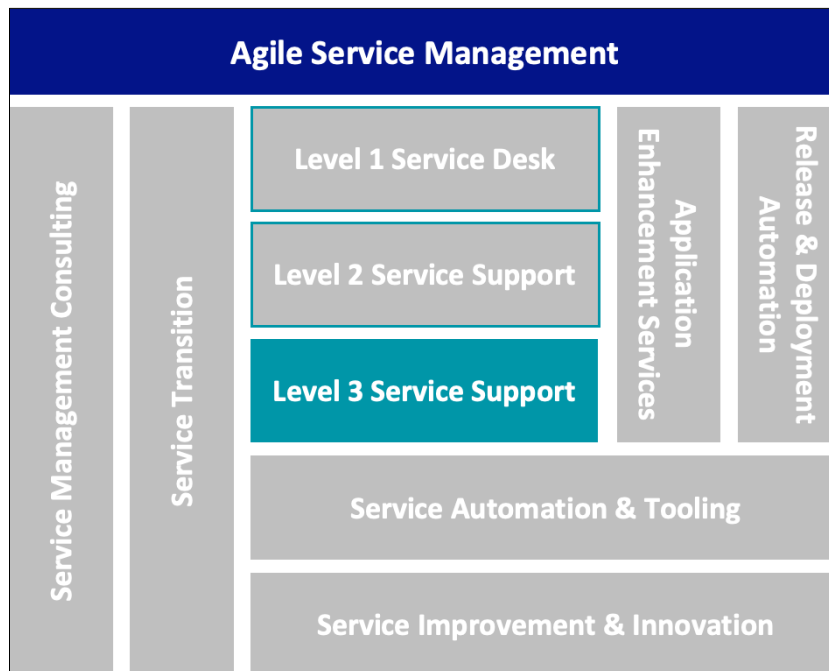


Figure 1: Agile Service Management (ASM) Service

In conjunction with or standalone, Mastek's Level 3 Service Support service provides a DevSecOps-based approach to sustaining cloud applications and environments/platforms in live service operations, including Early Life Support (ELS) and retirement.

In delivering our Level 3 Service Support service (and its related Level 1 Service Desk and Level 2 Service supports service components), we adopt and blend Agile and ITSM methods and best practices to provide:

- Responsive and proactive Level 3 Service Support service.
- Application event monitoring, management, and service protection.
- Incident diagnosis and resolution, including major incident management.
- Responsive and proactive problem management, root cause analysis and elimination.
- Change enablement, release and deployment management.
- Availability management.
- Continuous Improvement (CI) and Continual Service Improvement (CSI).
- Service automation and tooling.

- Quality assurance, testing, and transition support.

We underpin our service delivery with an ethos of knowledge sharing and continual service improvement.

3. Masteks Service

The Level 3 Service Support service from Mastek includes the following core scope:

- Responsive and proactive Level 3 service support:
 - When combined with our overarching Agile Service Management service, we will provide a responsive and proactive Level 3 Service Support service or integrate with your other delivery partners' Service Desk and Service Support services for "joined-up" service delivery.
- Application event monitoring, management, and service protection:
 - Proactive monitoring of applications and reporting of issues using modern event management tools such as AppDynamics, Datadog, Dynatrace, ELK stack, and Splunk. This will include monitoring, health checks, and assistance in optimising services to safeguard their performance and availability.
- Incident resolution:
 - Diagnosis and resolution of incidents occurring in the live service operations environment, including a rapid response approach for P1/P2 incidents requiring expedited workaround and resolution.
- Problem Management - A problem management process (both responsive and proactive) that includes:
 - Root cause analysis
 - Preparation of Impact Analysis Document, with proposed solutions for root cause elimination
 - Development and quality assurance
 - Release build and packaging
 - Release and deployment management.
- Change, release and deployment management:
 - Authorising and producing code/data fixes, validating, preparing necessary release documentation and delivering the release build, followed by support during assurance and transition.
- Application availability:
 - Full support for high-availability business-critical systems. Mastek has consistently provided support across various accounts for systems that have demanded availability of over 99.5% and approaching 99.9%
- Continuous Improvement (CI) and Continual Service Improvement (CSI):
 - Working proactively alongside the customer's teams to identify future system and service improvements, tracking and progressing via problem records and Service Improvement Plans (SIPs).
- Service automation and tooling:
 - Mastek will identify recurring and effort-intensive processes in the operations flow. Based on this, Mastek will create a roadmap for service automation by deploying tooling to maximise value by reducing or eliminating non-value-adding tasks. Automation will reduce defects, eliminate mundane tasks, improve efficiency and provide reliability to operations.
- Quality Assurance, testing, and transition support:

- Support quality assurance and testing operations by doing data and code analysis, defect fixing of code and release documents and redelivery of any corrected code/documents to the environments team if issues are found during testing of releases. Supporting transition to live service operations through service validation and testing.

Customers can choose the entire package or customise the service by selecting the above-scope items. There is an option to customise the level of support as required for critical release windows, special change control periods, or specific times in the business calendar. Customers can also choose to implement this during standard or non-standard working hours, including full 24x7 support.

3.1 Shift Left

In delivering our Level 3 Service Support service, Mastek strongly advocates for using “shift left” to achieve cost efficiency, productivity, and customer experience benefits.

In the ASM world, shift left involves moving service request fulfilment and incident resolution to the lowest support tier possible (i.e. as close to the end-user). By shifting left, these activities are transferred to lower-cost delivery channels, improving the customer experience by fulfilling requests and resolving incidents more quickly and as close to the user as possible.

Mastek’s approach to shift left includes transitioning Level 3 Service Support activities to Level 2; for example, those activities can usually be resolved with a semi-standardised response from a set of fixed scenarios.

Mastek considers the following three critical success factors for shift left:

- **IT self-service:** A fit-for-purpose self-service capability is critical for delivering shift-left benefits
- **Knowledge management:** The availability of fit-for-purpose knowledge articles and FAQs is crucial for winning with IT self-service and, thus, Level 0 support. Making knowledge management a BAU activity embedded within day-to-day operations is imperative
- **Automation** is key to delivering the benefits related to increased speed of resolution/provisioning and cost reduction. Additionally, it offers a more enhanced customer experience.

3.2 Application and Environment/Platform Self-Healing

Mastek’s self-healing service can identify errors in the operation of cloud applications and environments/platforms and make pre-defined and safe changes to them without intervention from service support engineers. Thus, it restores them to a better-functioning state at a minimal cost, allowing service support engineers to focus on more complex incidents, problems, and maintenance activities.

- a) **Cloud application layer:** In cloud applications, issues are written to an ‘exceptions log’. Serious issues may require the application to stop (e.g. inability to connect to a database). Mastek’s application self-healing incorporates design elements that resolve these problems. For example, applications that use specific libraries arrange elements in a hierarchy and assign an actor’s problems to its supervisor. Many such libraries and frameworks facilitate applications that self-heal by design.
- b) **Environment/platform layer:** Environment/platform-level self-healing does not depend on a programming language or specific components. It can be generalised and applied to all services and applications, independent of their internal components. The most common environment/platform-level issues include process failures (often resolved by redeploying or

restarting) and response time issues (often resolved by scaling and descaling). Self-healing systems conduct health checks on different components and automatically attempt fixes (such as redeploying) to recover to their desired states.

4. Key Features

- Proactive 24x7x365 monitoring and support of application and service.
- Resolution of incidents within rigid deadlines as per the Service Level Agreement.
- Agility in Service Delivery.
- Bring customer insight to every decision.
- Durable, dedicated and diverse team of IT professionals with solid technical and operational knowledge.
- High “Right First Time” target.
- Restoration of service in a timely manner as per the Service Level Agreement.
- Thorough investigation of Root Cause Analysis and outcome of Retrospectives.
- Focus on automation.
- Quick response following the core processes.
- Quick adaptability to the support tools.
- Periodic Retrospectives for Service Improvements.
- Automation of mundane and repeated processes, which will improve the efficiency and reliability of the system.
- Capability to build techno-functional capabilities.
- Readiness to provide out-of-hours support for effective Serviceability.

5. Business Benefits

- Successful business strategies.
- Robust interface with all stakeholders – suppliers, vendors, customers and end-users, enabling quick turnaround time.
- Security cleared staff as appropriate.
- Reduced risk of business failure.
- Efficient serviceability achieved due to solid SLA structures
- Readiness to provide ad-hoc assistance towards achieving service targets, including 24x7x365 support.
- Decades of experience delivering third-line support in the Central Government, Healthcare, and Retail Industries.
- Agility in working mode that will result in quick responses and improvements.
- Experience with various DevSecOps technologies.
- The “One Team” approach will eliminate conflicts between development and operations teams.
- Robust process frameworks, including Agile, DevOps, ITIL, and others.
- Ability to quickly adapt to new technologies.
- Mobility and quick customer response, effective team functioning even if the team is not collocated.
- Capable of delivering the follow-the-sun support and an on-site/offshore service model.

6. Technologies, Tools, Methods, Standards and Vendor Support

We support all major technologies, the latest toolsets, best practices, and standards. Mastek has significant experience delivering the following services in our G-Cloud clients' environments.

User experience and frontend: .Net Core MVC; ADX Studio; Angular; ASP.Net; C#; CSS; D3; Dynamics CRM; Elasticsearch; HTML5; Javascript; JSON; JSP; Mustache template framework; MobX; React.js; Power BI; SharePoint

Integration, back-end processing, workflow, services, security, Microservices, BPM, operations: .Net core; ActiveEon; ActiveMQ; Activiti; Apache; Apache/IBM ServiceMix; ASP.NET; Azure API Manager; Azure App Service; Azure Key Vault; Azure SignalR; Azure Web Job; Camel; Commons; Drools; EC2; Fuse Application Server; Fuse ESB; Groovy; Handlebars; Hibernate; Hystrix; IAM; J2EE; Java; JBoss; JBoss Fuse; JSON; LDAP; Mule ESB; NetIQ; Office 365; OpenAM; OpenDJ; Oracle BPL; Oracle SOA; PHP; Python; Quartz; Redhat SSO; REST/SOAP; Scala; Servlets; Sleuth; SMTP; SOAP/WSDL; Spring Boot; Sprint Batch; Sprint Data; Sprint Integration; SQL; Stripe Payment Gateway; Swagger; Tibco; Tomcat; Web Services; Windows services; XML Firewall.

Data, Insights, Warehouse, Analytics, BI, Data Lake, Data Virtualisation, Visualisation, AI: Apache Solr; Aurora; AWS S3; Azure Storage; Business Objects; DB2; DynamoDB; EBS; Flashback and Data Guard; H2; Ingres; Kibana; Kikari; Liquibase; MariaDB; Microsoft SQL Server; MySQL; Mongo DB; OBIEE; ODI; Oracle; Oracle Dataguard; Oracle Golden Gate; ORM/Hibernate; OWB; PgAdmin; PostgreSQL; Power BI; RAC; RDS; Riak; SQL Server; Tableau; Talend; XML.

Build, deployment storage, code quality, source code repository: Ant; Apache Maven; Azure DevOps (previously Team Foundation Server (TFS)); Bash; Bitbucket; CLI; Cloudwatch; Cucumber; Docker; Dovecot/Postfix; EBS; EC2; ECS; EFS; Firehose; Git/GitHub; Gradle; Grafana; Helm; Jenkins; Junit; Kinesis; Kubernetes; Linux Administration; Maven; Mockito/PowerMock; Nexus; NIST Binary Aware; Packer; Prometheus; Puppet; RDS; S3; Selenium; Shell Scripting; SNS; SOCAT; SonarQube; SQS; Squid; Stash; SVN; TeamCity; Terraform; Vault; Virtuoso Listener; WireMock; Zabbix.

Environment and platform technologies: AWS, Azure, Hyper-V, UKCloud, UNIX, VMware, Windows, and secure IL0, IL2, and IL3 environments.

Other delivery tools: Ansible, Apache Maven, BMC Remedy, CheckStyle, Cherwell, Confluence, Docker, ELK (Elastic Search, Logstash and Kibana), FindBugs, Gatling, GIT, HP Openview, HP Quality Centre, HP Service Manager, HP Test Director, Jenkins, Jira, Jmeter, Junit, Landesk, Microsoft System Centre Operations Manager (SCOM), Mockito, Nagios, Piwik, PMD, QTP, Selenium, ServiceNow, Sonar, Splunk, Trello, Zabbix.

Methods and standards: Agile, BS 7799, DevOps, ISO 20000 Service Management, ISO27001 Information Security, ISO9001 Quality Management, ITIL, PMP, Prince2.

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