

IBM Consulting

A glowing blue cube is positioned in the center of the image. The cube's faces are textured with a grid pattern, and two of its faces feature a glowing blue cloud icon. The cube is surrounded by a network of thin, glowing blue lines that intersect at various points. The background is a dark, textured surface resembling a circuit board or a dense array of microchips, with various components and traces visible.

G-Cloud 15 IBM - Quality Engineering - Quality Engineering Service Definition Document

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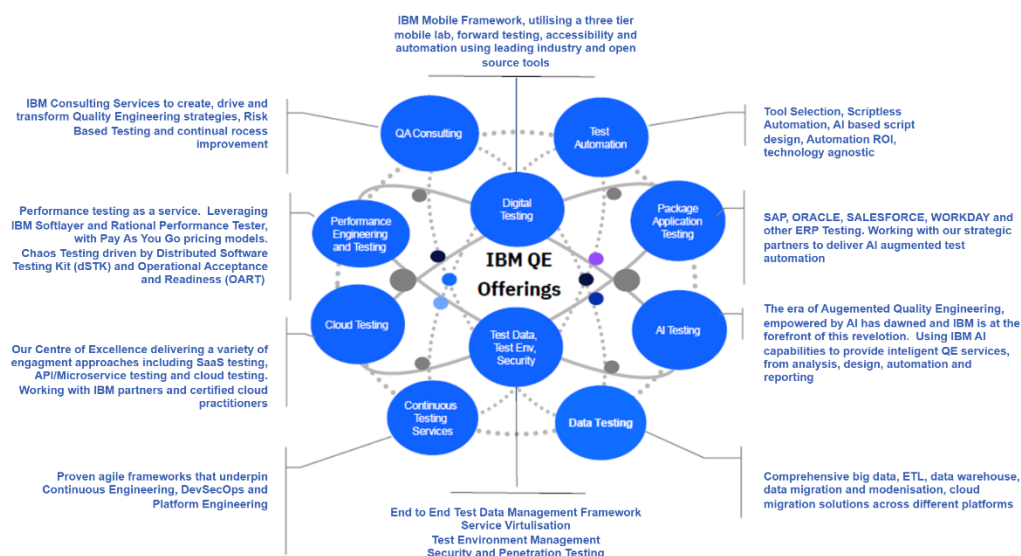
IBM – Quality Engineering – Quality Engineering

Our offering Framework

The Quality Engineering service is part of the IBM QE (IBM Quality Engineering) suite of offerings.

IBM QE offerings cover the full breadth of testing needs.

The purpose of these services is to help you deliver quality government services at scale and to get increasingly complicated applications to market faster, with fewer defects and at a lower cost.



Guided by our unique QE advisory offering, we will help our clients to build a tailored QE journey map, transforming their organisation to deliver meaningful quality change in 3 areas:

A shift in the Quality Culture: Driving cultural change and coaching best practice within programs and across your leadership team.

Across everyday activities: Enabling teams to embed quality and validation into their day-to-day delivery on their own technology stack.

Leveraging today's technology, now: Embedded alongside development, IBM will use technology and automation to spread the quality load to a point where quality becomes everyone's responsibility.

With IBM Quality Engineering, your enterprise can quickly and efficiently deliver high-quality products by leveraging unique optimisation, automation, and cognitive capabilities, along with a client's existing knowledge base and reusable IBM industry assets. IBM will also accelerate the modernisation journey by conducting practical cloud testing and leveraging AI to test AI-infused applications.

IBM - Quality Engineering – Quality Engineering

Service Overview

Features

- Defect prevention and early defect removal with Shift Left
- Highly skilled and trained quality engineers
- Development experience supporting code and architectural reviews
- Transparent with Continuous Feedback
- Collaboration Across Teams
- Focused on delivering Business Outcomes
- Value and Performance Driven
- Powered by IBM IGNITE Platform, a set of Accelerators
- Prevention across the SDLC
- Test Suite Optimisation.

Benefits

- Increased automation adoption
- Reduced Cost
- Increased speed of delivery
- Reduced CapEx costs
- Reduced risk of outage
- Increased brand reputation
- Improved understanding of application and systems quality
- Efficient and effective testing coverage.

Key Differentiators

- Thousands of dedicated Quality and Testing professionals globally
- Global Centre of Excellence for the delivery of Quality and Testing services
- We have operational clients in the UK Government as well as a wide breadth across all UK sectors.

Real World Case Studies

- **Canadian Telco:** 35% Effort Reduction related to QE Improvements, 99% Defect Removal rates. Global Centre of Excellence in the delivery of Quality and Testing services.
- **Large Building Society:** UK-based, 55% reduction in Test Headcount, Automation across delivery up to 90%.
- **NHS:** 80% reduction in Manual Test Effort, Increased Team Velocity.
- **NA FSS:** 65% of all Testcases automated, 99% defect prevention in production.
- **Guardian:** a mission-critical, command & control system protecting our airspace. Delivered two releases into live operation in 2023 with only a single incident raised. Our Quality Engineering team leveraged our long- standing, trusted relationship with our client to move to automation of operational scenarios successfully, iteratively refine user requirements and embed quality throughout the lifecycle to ensure successful transition into live operations.
- **Eithad Airways:** reduces performance test cycle time and costs - typical savings range from 30% – 50%.

IBM - Quality Engineering – Quality Engineering

Addressing Business Needs

IBM's proven approach to Quality Engineering will help your enterprise avoid common mistakes in transformation. IBM will focus on coaching anybody engaging across your application development life cycle, to adopt a 'Quality First' mindset aimed at ensuring Quality is embedded from the outset & is a constant throughout the process.

IBM QE Advisory Services offer an experience-based value proposition that includes access to IBM Research capabilities, extensive assets, effective processes, learning from thousands of QE engagements, and, most importantly, access to a highly skilled talent pool.



Our teams can help you address your requirements for testing essential government services with rigour and depth.

What is blocking quality today?

Enterprises that deliver new programs and solutions are experiencing similar quality-related issues:

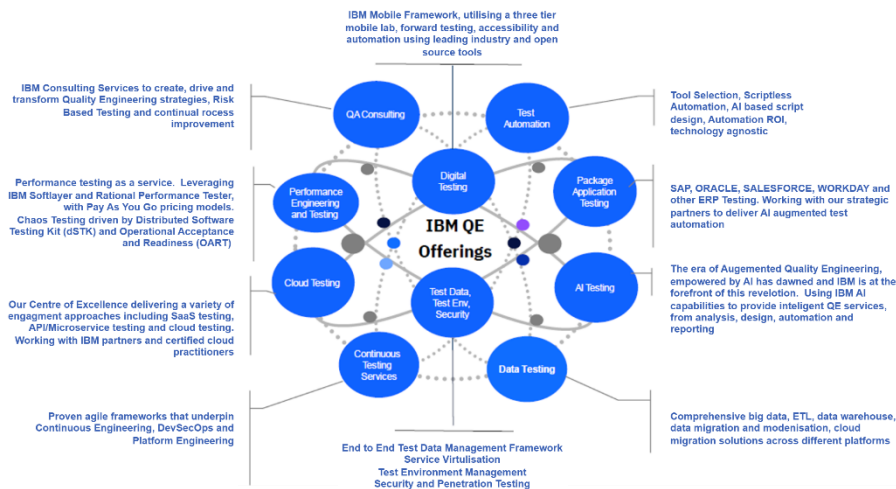
- Incumbent vendors not delivering quality outcomes. Approaches are manual, inflexible, effort-focused, with no innovation and a headcount which is too high and expensive
- The “Burden” of Test Automation – an inability to automate, a lack of automation skills in your enterprise or experiencing high associated costs of automation
- Not having enough time to test while still having demands to deliver at speed with quality and to align to an Agile/DevOps multiverse
- Technology continues to evolve, which highlights an organisation’s inability to easily test API, digital solutions, SAP, Salesforce, AI or access skilled Quality Engineers in the marketplace.

IBM - Quality Engineering – Quality Engineering Service Definition

With IBM, you can co-create a flexible model that enables engineering with Quality while modernising existing quality capabilities in line with the QE transformation plan, ensuring stability in everyday delivery.

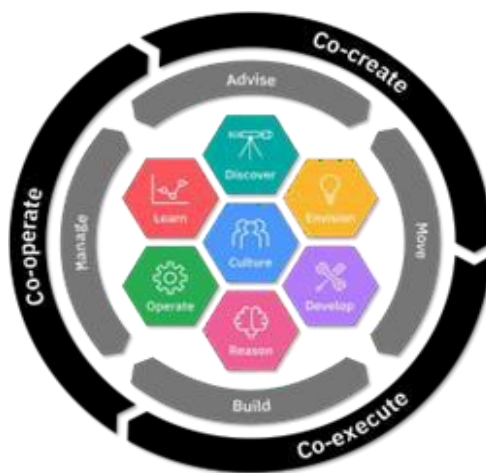
As part of the journey, IBM will bring its end-to-end capabilities, tooling, customised processes and a deep local, near-shore and global resource pool of qualified Quality Engineers to fill additional roles as the engineering capability grows and scales.

In partnership with IBM, we can also deliver services to support an evolving Quality Engineering approach.



The diagram above details all the IBM QE offerings.

Those offerings highlighted in BLUE are in scope for this Quality Engineering as a Service offering. IBM can deliver Quality Engineering principles and experience across all our standard offerings, enabling continuous testing.

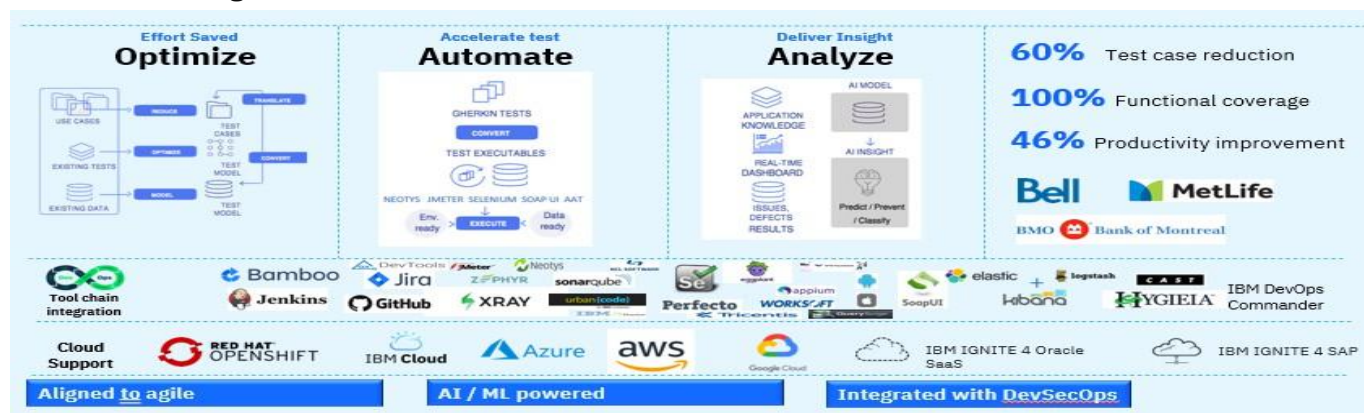


IBM - Quality Engineering – Quality Engineering

IBM IGNITE Quality Platform

To support all our offerings, IBM also provides the IGNITE Quality Platform. This AI-enabled framework enables you to move from detection to prevention faster, with higher quality, at lower cost.

The IBM IGNITE Quality Platform provides a set of loosely coupled tools within a toolchain to support industry-leading quality and testing services. Our services are built on real Quality and Testing experience with highly critical systems across government and other industries. We have made extensive investments in toolchains, automation and robotics to deliver quality services that go beyond traditional testing.



Services include:

- Experiential QE Consulting Services called QE Advisory
- QE Guilds with Quality Engineers within Squads
- Test Optimisation & Automation
- Performance Engineering
- Package Application Testing
- Digital, migration & non-functional testing
- Data Testing and Package Testing
- Cloud Testing (including Assessment and POC)
- AI Testing
- Test Data and Test Environment Management
- Continuous Testing Services

- Microservices + API Test Automation.

We deliver these services across multiple domains, technologies, and platforms, as well as complex solutions. This includes, but is not limited to, Legacy Applications, ServiceNow, SAP, Salesforce, and Web, mobile, and API solutions. We are also skilled in the use of most commercial tools, including the AI-powered test platform, Keysight, Virtuoso, Tosca TM and QuerySurge TM and provide the required expertise and tools, including:

- Reusable automation Frameworks to enable optimisation, automation, and AI Testing
- Example Pipelines and Repository structures for adoption
- Automated governance assets at the centre of the collaboration tool set
- Industry-leading Quality Management toolkit.

As a QE transformation places demands on parts of your enterprise, you can leverage other parts of IBM, including our EA Managed Services, Platform Services (encompassing DevSecOps, Service Management, QE & Platform Engineering Services), and Custom & Data Managed Services. Delivering Quality outcomes requires a partner who understands the bigger picture for your business.

IBM - Quality Engineering – Quality Engineering

IBM Approach

The most critical systems that support government organisations demand quality outcomes. To achieve this, we take an asset-driven approach to delivery and bring extensive expertise in Quality and Testing methods.

We categorise our approach into six areas, each of which has a set of specific activities:

Governance • Environmental governance • Data governance • Quality governance • Control functions	Team • Team sizing and structure • Quality standards • Tooling and automation • Metrics
Stakeholders • Strategy & Digital Testing • Product ownership • Communications approach • Stakeholder engagement	Process Integration • Demand • Branching and merging • Testing approach • Path to live
Inception • Onboarding • Coaching • Training • Location management	Ways of Working • Methods • Empowering Team • Transparency • Continuous Improvement



**We have a
“Test Less, Test Right”
mantra and we believe
in accelerating testing
using AI to improve root
cause identification
and achieve faster
resolutions.**

IBM - Quality Engineering – Package Application Testing

About IBM

Supporting Government

We help government organisations in the UK and worldwide deliver and transform essential public services – our teams are passionate and proud about helping you to make a real difference to people's lives.

Government Services Supported by IBM



Defence and Intelligence



Public Safety and Policing



Healthcare



Life Sciences



Tax and Revenue Management



National Infrastructure



Social Care



Education



Works and Pensions

The problems we solve for clients are complex and cannot be satisfied with technology alone. They require a partner who can also offer deep industry expertise and a trusted relationship.

IBM combines the portfolio, people and sense of purpose necessary to meet today's enterprise demands. Every day, we support and manage complex delivery for government clients, with the impact of delivery reaching far beyond citizens and national services.

We bring access to industry experience, insight, and technology capability to deliver and operate secure, scalable, optimised, and available services for government.

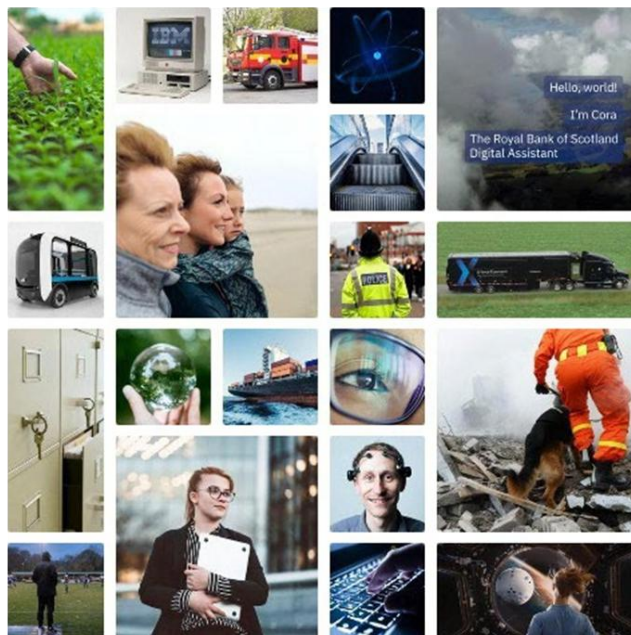
We support you by bringing:

- **Industry expertise** – Professionals who understand and are passionate about delivering quality public services and can bring industry insights and apply innovation to your business processes
- **Trust and security capabilities** – Protecting valuable data and insights and deploying innovations responsibly
- **Innovative technology** – Expertise in areas such as AI, blockchain, 5G, Automation, IoT, cybersecurity and quantum, delivered in a Hybrid Cloud environment
- **Experienced Services Professionals** to support strategy, innovation and deliver transformation and change to processes, applications and cloud infrastructure
- **Global alliances** – valuable partnerships with the world's leading vendors.

About IBM

[This is IBM in the UK](#)

We have worked together with organisations in the UK for over 100 years, with a rich history of joint innovation and achievements, built on trusted relationships.



Cloud

Together, IBM and Red Hat are working to deliver the world's only **next-generation hybrid multicloud platform**



Economy

IBM has been **integral to the UK economy for >100 years**, and is one of its largest tech employers



R&D

In the UK alone, IBM **invests £170 million in R&D** each year



Quantum

IBM Q, the world's most advanced quantum computing initiative for commercial use, is being used by CERN



Environment

IBM's **focus on sustainability** began in 1971 with our first environmental policy



Changing the world

IBM was awarded **World Changing Company of the Year 2019** by Fast Company



Royal recognition

29 UK IBMers received **honours from the Queen** for contributions to tech and society



Diversity

IBM won the **Global Diversity Award 2019** and the ENEI's **Gold Standard**



Graduates

IBM is committed to developing future talent – we are **Target Jobs' Graduate Employer of the Year 2019**



Volunteering

IBM dedicates **>20,000 volunteering hours every year** for a better society



Tech talent

IBM runs P-TECH schools in 18 countries, helping **>100,000 students build skills for careers of the future**



Inventors

IBM UK is home to many Master Inventors, with **>250 patents filed last year alone**

