

IBM Consulting

A glowing blue cube is positioned in the center of the image. The cube's faces are decorated with pixelated cloud icons. It sits atop a dense, intricate circuit board that fills the background. The entire scene is bathed in a cool blue light, with thin, intersecting lines creating a sense of a digital or networked environment.

G-Cloud 15

IBM - Quality Engineering - Quality and
Testing Management

Service Definition Document

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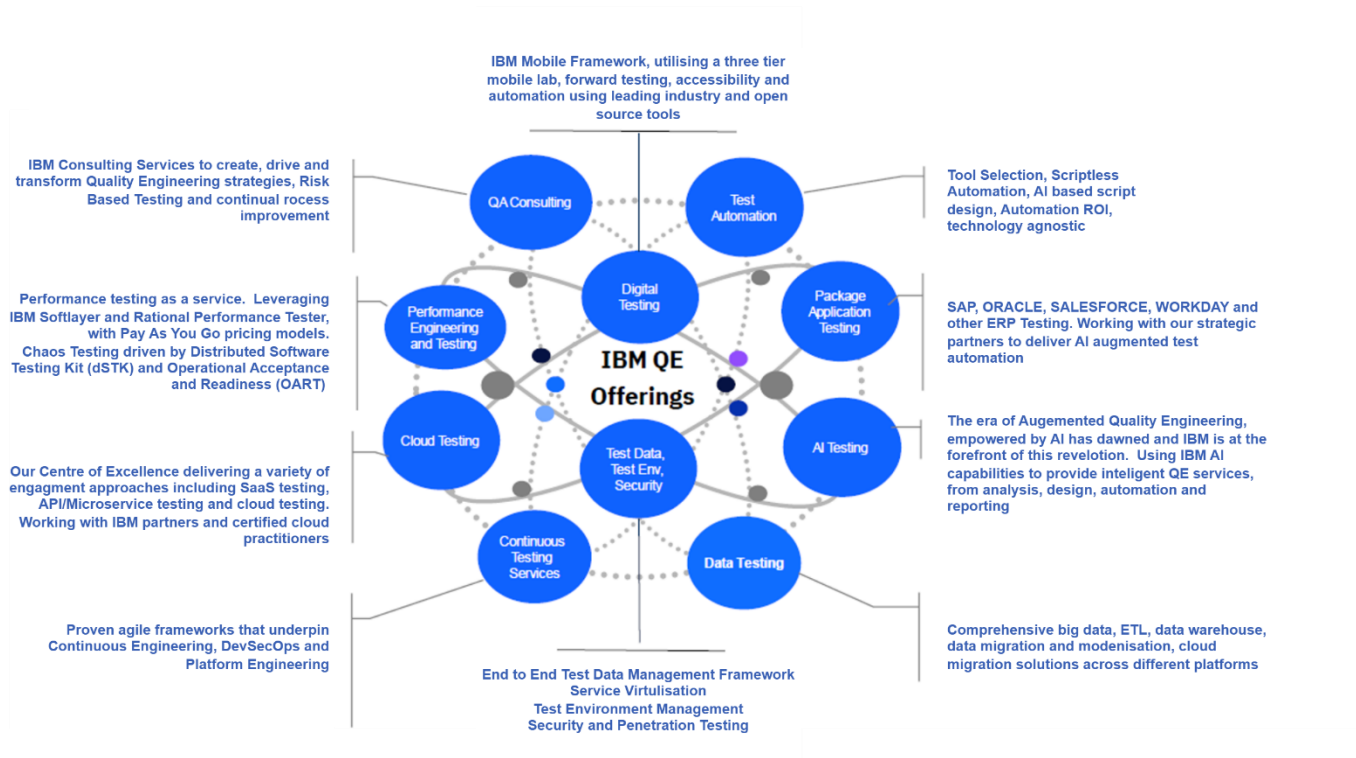
Contents

Our offering Framework.....	3
Service Overview.....	4
Addressing Business Needs	5
Service Definition	7
Supported by IGNITE Quality Platform	8
IBM Approach	9
About IBM	10

IBM - Quality Engineering – Quality and Testing Management

Our offering Framework

The Quality and Testing Management Testing 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.

IBM Quality Engineering Test Management shifts organisations to adopt a 'Quality First' mindset aimed at embedding Quality from the outset & as a constant throughout the process. 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, Across every day activities, Leveraging today's technology, now.



IBM - Quality Engineering – Quality and Testing Management Service Overview

Features

- Re-using assets to deliver cost-efficient and reusable data sets
- Industry-leading practices and methods
- Embedded alongside development, IBM will use technology and automation to spread the quality load to a point where quality becomes everyone's responsibility
- Enabling teams to embed quality and validation into their day-to-day delivery on their own technology stack
- Driving cultural change and coaching best practice within programs and across your leadership team
- Powered by IBM IGNITE Platform, a set of Accelerators
- Using IBM Garage collaborative co-creation methods.

Benefits

- Increased automation adoption
- Reduced Cost, Increased delivery speed
- Reduced Capex costs, reduced risk of outage
- Increase brand reputation
- Improved understanding of application and systems quality.

Key Differentiators

- Strategies and methodologies built around real Quality and Testing experience
- Industry-certified quality and testing managers and processes
- Thousands of non-functional tests run every day
- AI and automation built into the IBM IGNITE Platform to accelerate Quality and Testing delivery
- Global Centres 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

- Financial Services: A large bank used IBM Test tooling to reduce testing time by 30%, enabling them to deliver applications faster and more efficiently
- Healthcare: A hospital system used IBM Testing Tools to improve its testing process, reducing the time it took to test new applications by 25%
- Retail: A large retailer used IBM Test Management to improve their testing process, reducing the time it took to test new applications by 35%
- Government: A government agency used IBM Test Management to improve its testing process, reducing the time it took to test new applications by 50%.

IBM - Quality Engineering – Quality and Testing Management

Addressing Business Needs

Quality and Testing Management is not just a single activity. It consists of a series of activities and can be broken down into two main areas:

- Planning
 - Quality First
 - Risk Analysis
 - Test Estimation
 - Test Planning
 - Test Organisation.
- Execution
 - Test Monitoring and Control
 - Issue Management
 - Test Report and Evaluation.

With IBM Quality Engineering Testing Management, your enterprise can quickly and efficiently deliver high-quality products by leveraging unique optimisation, automation, and cognitive capabilities, and by leveraging 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 can help you address your requirements for testing essential government services with rigour and depth. We can help you address your key business needs, including:
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, and effort-intensive
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 test API easily, digital solutions, SAP, Salesforce, AI or access skilled Quality Engineers in the marketplace.

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.

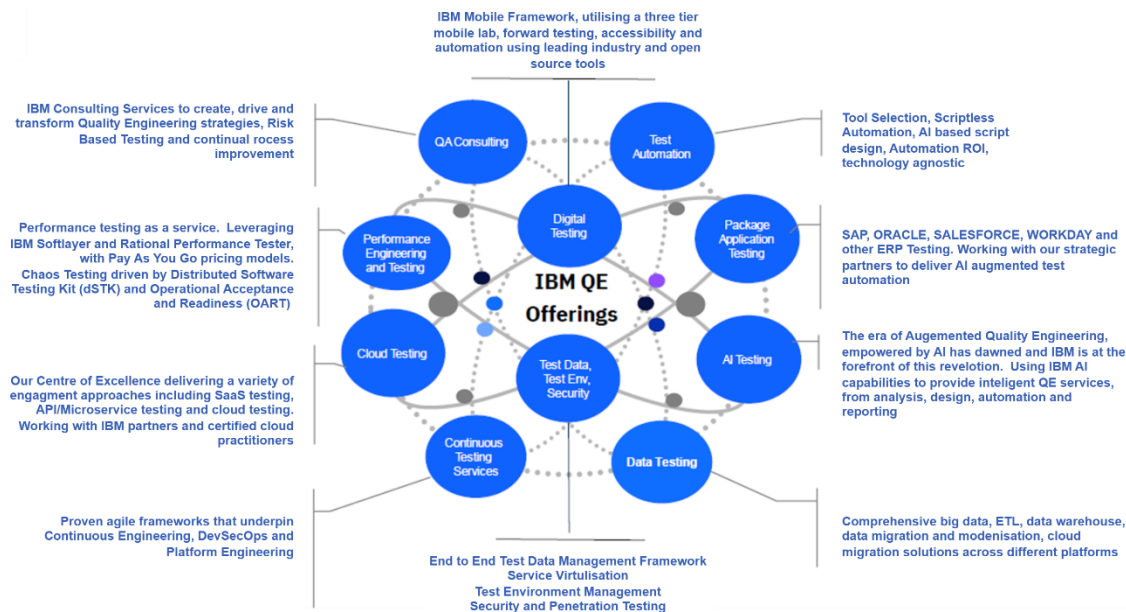
IBM QE Test Management offers an experience-based value proposition comprising access to IBM Research capabilities, extensive assets, effective processes, learning from thousands of QE engagements, and, most importantly, access to a highly skilled talent pool.

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.

IBM - Quality Engineering – Quality and Testing Management Service Definition

IBM Quality Engineers have extensive local and global experience in Quality Engineering Test Management technologies and employ tested methodologies, together with advanced tools to help achieve success in your projects – ensuring quality, on time and on budget. IBM has one of the most extensive Quality Engineering capabilities with 24,000+ Quality Engineers globally delivering for the largest clients across every Sector / Industry and Technology landscape.



The diagram above details all the IBM QE offerings. Those offerings highlighted in BLUE are in scope for this Quality and Testing Management service.

Where IBM fully engages Quality Engineering Test Management principles to transform your enterprise, the following benefits are realised:

- Quality driven earlier in the life cycle – through analysis of epics, user stories and improved in-sprint testing
- Improved overall test coverage through analysis of business combinations and generation of test cases to cover the combinations, driving quality. Leading to less maintenance effort in future releases.
- Increased levels of automation at multiple steps of the QE lifecycle
- Reduced cycle times
- Better quality delivery as a result of improved tooling selection and solution design(features and increments)
- Provide a foundation of quality that facilitates the successful completion of large programs
- Reduced total cost of ownership.

IBM - Quality Engineering – Quality and Testing Management Supported by 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 and with higher quality at a lower cost.

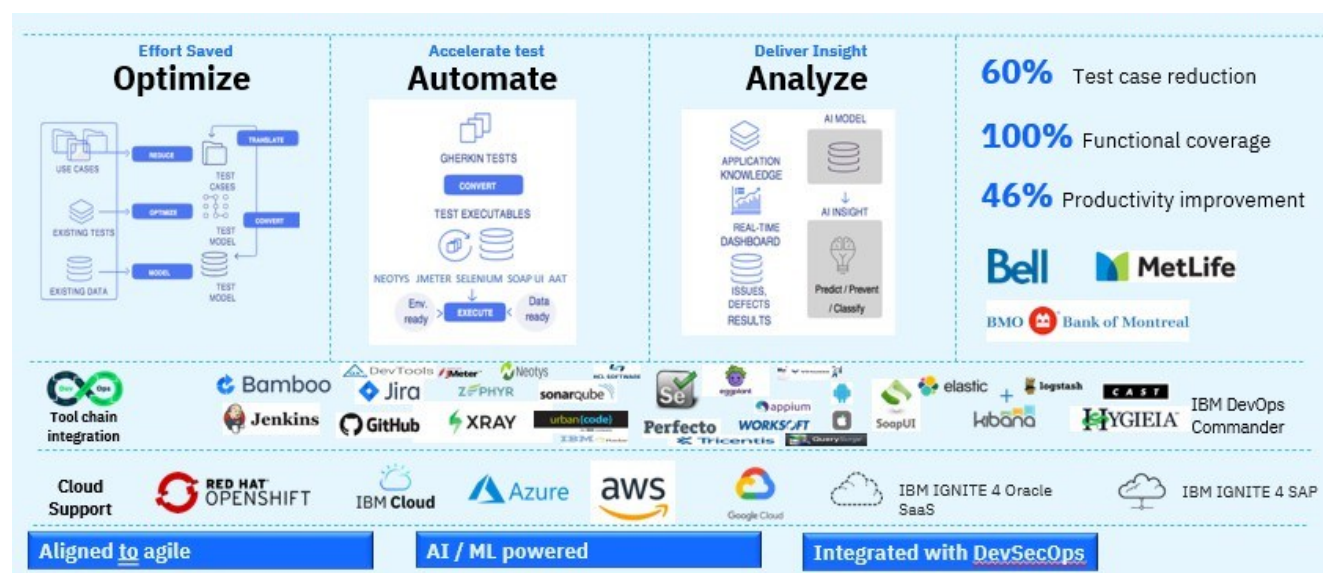
The IBM IGNITE Platform provides a set of loosely coupled tools within a toolchain to support industry-leading quality and testing services.

The platform offers extensive integration capabilities across toolchains and hyperscalers. The IBM Quality Engineer Test Managers are highly trained across the Quality platform and other vendor tools.

The three phases depicted below are: Optimise to reduce costs whilst ensuring coverage (through Combinatorial, Risk-Based, or Model-based testing techniques).

Automation to accelerate Testing using AI-infused tools. Analyse with AI-infused tools to identify trends, and Root Cause Analysis to deliver actionable insights.

IBM will deploy Industry and IBM-certified Quality and Testing Managers to manage and deliver end-to-end Quality and Testing Services.



IBM is a recognised leader in Quality Engineering and Testing Services :

- Gartner: Magic Quadrant for API Management and Testing, October 2023,
- The Forrester Wave™: AI Decisioning Platforms, Q2 2023:
- Gartner: Market Guide for Application Testing Services, January 2022,
- The Forrester Wave™ : Continuous Automation and Testing Wave 2021,
- IDC 2018 : IBM Delivers Market –Leading Software Test Automation.

IBM - Quality Engineering – Quality and Testing Management

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 depth of knowledge 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.

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



Artificial Intelligence

IBM develops **watsonx based generative AI solution** for the Austrian federal armed forces **to provide fact-based evaluation and classification** for the ability to remain capable of acting in the light of risk scenarios.



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 **ENET'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**

