IBM Consulting

G-Cloud 15
IBM - Quality Engineering - Operational Acceptance and Readiness Testing (OART)

Service Definition Document

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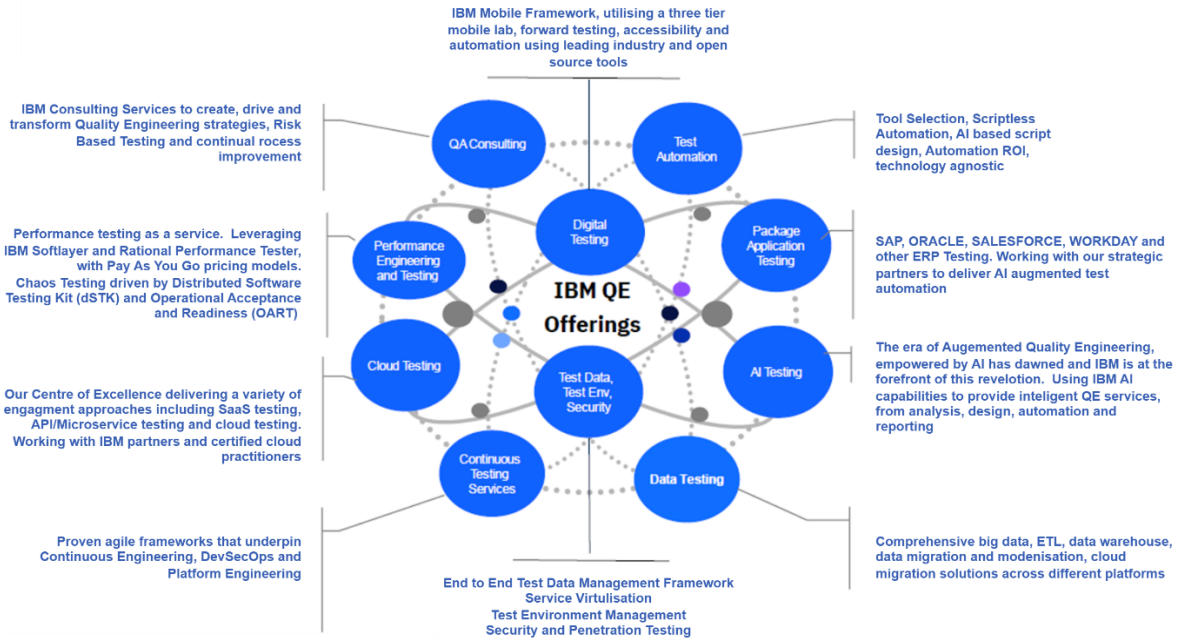
IBM - Quality Engineering – OART Service

Our offering Framework

The OART 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.



OART helps ensure that the system meets business requirements and performs as expected in the production environment. At IBM Quality Engineering, we offer a comprehensive OART service that covers all aspects of system readiness, so you can confidently deliver solutions that meet your business needs.

IBM - Quality Engineering – OART Service

Service Overview

Features

- Operational Acceptance Testing
- Platform conformance
- Shutdown and Resumption
- Backup and Restore
- Monitoring and Alerting
- Operational support procedures
- Operational Reporting
- Batch Processing
- Resilience and High Availability
- Disaster Recovery
- Automation and Orchestration.

Benefits

- Ensures that the system meets the requirements of the business
- Reduces the risk of failures
- Improves the quality of the system
- Helps to identify and address operational issues
- Helps to ensure compliance with industry standards
- Increases speed and agility in delivering software and systems to market by reducing the time required for testing and enabling faster release cycles.

Key Differentiators

- We use industry-standard tools and frameworks to ensure that our OART service is effective and efficient
- Our OART service is compliant with global standards and frameworks such as IEEE 829, ISO/IEC 27001, NIST, ISAE 3000, ISO/IEC 27031, BS 25777, and COBIT
- We offer flexible engagement models that can be tailored to your specific needs and requirements
- We provide comprehensive reporting and analysis to help you track the progress of your OART activities and ensure that your systems are ready for production.

Real World Case Studies

- Large FX Settlement Services, an IBM QE team performed ORT, IVT, Resilience, HA/DR and Chaos engineering, to significantly reduce testing elapsed time and costs
- Large Commercial Bank, an IBM QE team performed ORT, IVT, Resilience, HA/DR and Chaos engineering, to significantly reduce testing elapsed time and costs.

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Addressing Business Needs

OART is the test phase conducted on the hybrid, public, private cloud, or on-premises solution to ensure that processes and procedures are in place to support its maintenance and operation in the live environment. It aims to demonstrate that the solution delivered is operable, resilient, recoverable, and fit for purpose. 15 categories make up our OART framework - designed to cover all aspects of system readiness and to ensure that the system is capable of performing its intended functions under various conditions:

IBM can help you address your requirements for testing essential government digital services with rigour and depth. We can help you address your key business needs, including:

- Ensures that the system meets the requirements of the business
- Reduces the risk of failures
- Improves the quality of the system
- Helps to identify and address operational issues
- Helps to ensure compliance with industry standards
- Increases speed and agility in delivering software and systems to market by reducing the time required for testing and enabling faster release cycles.

The categories of OART are :

- Platform (Infrastructure) Conformance
- Monitoring and Alerting

- Backup and Restore
- Deployment and Backout
- Shutdown and Resumption
- Housekeeping and Health Checks
- Operational Support Procedures
- Operational Reporting
- Batch Processing
- Resilience and High Availability
- Performance and Capacity Management
- Disaster Recovery
- Automation and Orchestration
- Archive and Retentions
- Maintainability.

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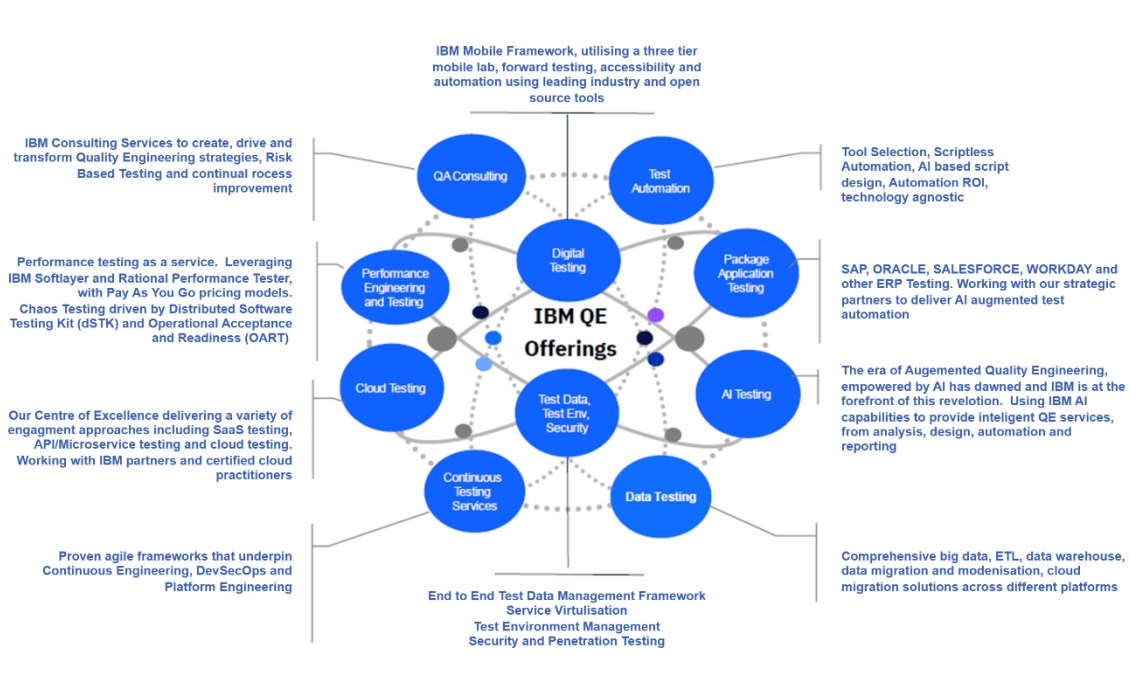
Service Definition



IBM's OART Service delivers proven quality assurance by bringing together well-blended, experienced teams, specialised OART toolsets & IBM quality and testing accelerators.

Operational Acceptance Testing (OAT) is a type of testing performed to validate if the system is ready for deployment and meets the operational requirements defined by the business. It is usually performed in the production environment or a replica of it, and it involves testing the system's performance, security and usability under real-world conditions.

The diagram above details all the IBM QE offerings. Those offerings highlighted in BLUE are in scope for this OART and cover mobile and digital channel quality and testing, utilising the latest in automation techniques and implementing Continuous Testing into delivery.

Operational Readiness Testing (ORT) is a type of testing conducted to validate whether the organisation is ready to support a new system or application. It involves testing the organisation's readiness to operate and maintain the system, including the availability of resources, procedures and training. The IT operations team typically performs ORT to ensure the organisation has the necessary processes, methods, and resources in place to support the new system.

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IBM IGNITE Quality Platform

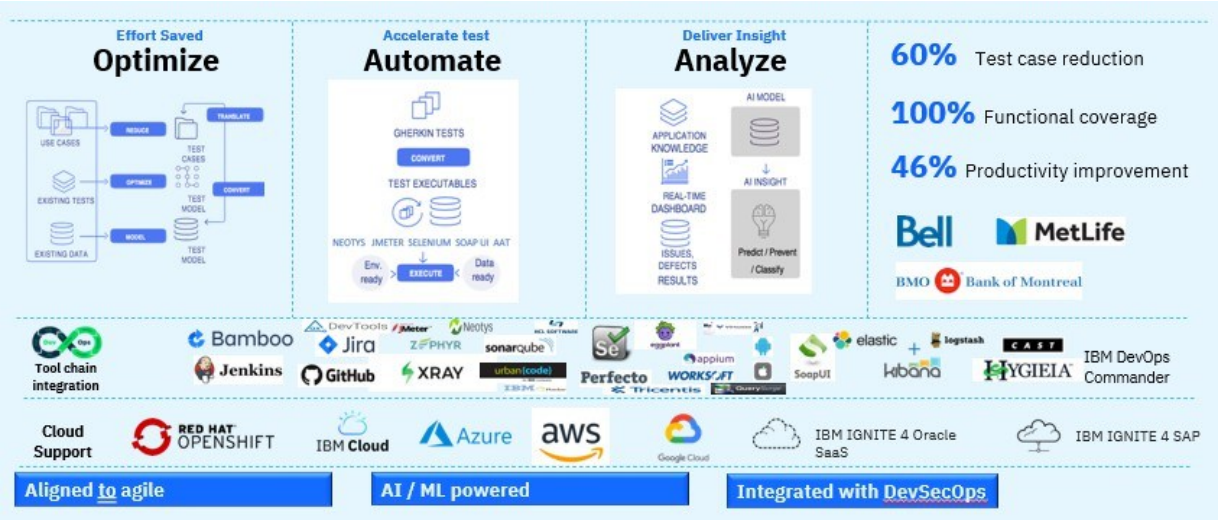
To support all our offerings, IBM also provides the IGNITE Quality Platform. This AI-enabled framework enables you to move from detection to prevention faster, with higher quality, and at lower cost.

The IBM IGNITE 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.

We combine our industry-leading IBM Quality Platform with a blend of other commercial tools, such as Provar, Copado, Conformiq, Tosca, eggplant, Virtuoso, SmartBear, UFT, Headspin, Jenkins, and Jira, to deliver AI-directed test automation, enabling clients to streamline testing processes, reduce costs, and achieve superior outcomes.

The three phases depicted below are:

- Optimise to save costs whilst ensuring coverage (through Combinatorial, Risk-Based or Model-Based testing techniques)
- Automate to accelerate Testing using AI-infused tools
- Analyse with AI-infused tools to identify trends, and Root Cause Analysis to deliver actionable insights.



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.

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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.

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About IBM

Supporting Government

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 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

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

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 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