

IBM Consulting



G-Cloud 15
IBM – Quality Engineering - Accessibility
Testing Services

Service Definition Document

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IBM - Quality Engineering - Accessibility Testing Services

Our Offering Framework

The Accessibility 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.



Accessibility testing can include manual, automated, or external audits, or a combination of all three. The goal is to identify and remove barriers that may prevent individuals with disabilities from using a product or service, including visual, auditory, motor, or cognitive impairments. Accessibility testing is essential to creating inclusive, diverse products that serve a wide range of users.

IBM - Quality Engineering - Accessibility Testing Services

Service Overview

Features

- Ensuring software complies with accessibility standards such as WCAG (Web Content Accessibility Guidelines) and Section 508 of the Rehabilitation Act
- Ensuring software functions as intended for users with disabilities, including those with visual, auditory, motor, and cognitive impairments
- Ensuring software is easy to use for users with disabilities, including those with assistive technologies such as screen readers, speech recognition software, and alternative input devices
- Ensuring software is accessible across different platforms, including desktop, web, and mobile devices
- QE Certified Accessibility testers with knowledge and skills in accessibility standards, testing techniques, and assistive technologies
- QE Trained testers who can provide accessibility training to testers and developers, ensuring the software is accessible and usable by people with disabilities.

Benefits

- This can help you reach a wider audience, improve user experience, comply with legal requirements, and enhance your brand reputation
- Accessibility testing can also identify potential issues early in the development cycle, reducing the cost and effort of fixing them later
- It can help improve the overall quality and usability of your software or website, making it more user-friendly for all users.
- IBM's accessibility testing covers a wide range of accessibility standards and guidelines, including WCAG 2.1, Section 508, and ADA.

Key Differentiators

- IBM's accessibility testing combines automated testing tools with manual testing by experienced accessibility testers to ensure thorough testing and accurate results
- Integration with DevOps: IBM's accessibility testing can be integrated into the DevOps pipeline, allowing for continuous testing and monitoring of accessibility throughout the development lifecycle
- IBM has a team of accessibility experts with extensive experience in accessibility testing and remediation, ensuring that testing is done accurately and efficiently
- IBM's accessibility testing can be customised to meet specific client needs and requirements, ensuring that testing is relevant and practical.

Real World Studies

- IBM is committed to creating accessible products and services. They have a dedicated accessibility team that works on ensuring their offerings meet accessibility standards and guidelines, such as the Web Content Accessibility Guidelines (WCAG) and the Americans with Disabilities Act (ADA)
- IBM has conducted extensive accessibility testing, including testing for screen reader compatibility, keyboard navigation, and colour contrast, among other accessibility features
- IBM has partnered with organisations such as the American Foundation for the Blind to create software compatible with assistive technologies, such as screen readers and Braille displays.

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Addressing Business Needs

Accessibility is achieved by including people with disabilities, following inclusive design practices, and validating against accessibility standards.

Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them. More specifically, people can perceive, understand, navigate, and interact with the Web, and contribute to it. Web accessibility encompasses all disabilities that affect access to the Web, including auditory, cognitive, neurological, physical, speech, and visual.

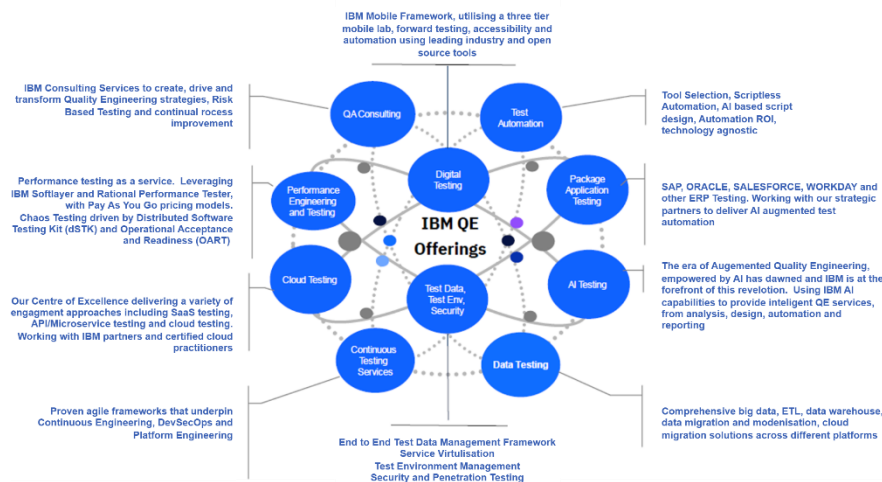
IBM can help you address your requirements for testing essential government digital services with rigour and depth. We can help you address your key business needs, including:

- Accessibility guidelines are defined in Web Content Accessibility Guidelines (WCAG version 2.1 and version 2.2)
- WCAG 2.2 is based on four design principles:
 - Perceivable
 - Operable
 - Understandable
 - Robust
- By focusing on principles, not technology, they emphasise the need to think about the different ways that people interact with content. For example, users might:
 - Use a keyboard instead of a mouse
 - Change browser settings to make content easier to read
 - Use a screen reader to 'read' (speak) content out loud.
 - Use a screen magnifier to enlarge part of a screen
 - Use voice commands to navigate a website
- The principles apply to all aspects of your service (including code, content and interactions), which means all members of your team need to understand and consider them
- Applies to Web, Mobile, Documentation, Hardware, and Authoring tools.

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Service Definition

Web accessibility also benefits people without disabilities, for example: people using mobile phones, smart watches, smart TVs and other devices with small screens, different input modes, etc. older people with changing abilities due to ageing, people with “temporary disabilities” such as a broken arm or lost glasses, people with “situational limitations” such as in bright sunlight or in an environment where they cannot listen to audio, people using a slow Internet connection, or who have limited or expensive bandwidth.



The diagram above details all the IBM QE offerings. Those offerings highlighted in BLUE are in scope for this Accessibility Testing Service.

- Comprehensive Testing: WCAG
- Automated and Manual Testing: automated testing tools with manual testing by experienced accessibility testers
- Integration with DevOps: integrated into the DevOps pipeline, allowing for continuous testing and monitoring of accessibility throughout the development lifecycle
- Expertise and Experience: IBM has extensive experience
- Customisable Testing: customised to meet specific needs and requirements
- Reporting and Analytics: detailed reporting and analytics
- Training and Education: IBM offers training and education programs
- Global Reach: can provide accessibility testing services to clients in multiple languages and regions
- Commitment to Accessibility: IBM's accessibility testing services, which are designed to help clients create more accessible products and services
- Scalability and Flexibility: IBM's accessibility testing services can be scaled up or down.

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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 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.

We combine our industry-leading IBM Quality Platform with a blend of other commercial tools, like Deque Axe technologies (i.e. DEVTool, Auditor, Assistant, Monitor, DAC), Assistive technologies (JAWS, AoomText Dragon), IBM Equal Access Accessibility Checker (Open Source), AInspector Sidebar, ARC Toolkit, Colour Contrast Analyser, to cover accessibility.

The Process Flow for Accessibility Testing phases used by IBM covers:

- Testing approach unit
- Automation
- Manual
- Reader Scanning
- Audit.

Unit: With more accessibility built into design and development.

Automation: Automated testing evolves from identifying missing accessibility to confirming successful implementation. Effort is reduced, and specific requirements are verified more quickly. Automated tools cover only a subset of WCAG requirements.

Manual Tests: Manual testing is required to cover the requirements and ensure full CI 162 compliance.

Reader Scanning: Screen reader testing is the final testing phase of accessibility verification testing (AVT). It is performed to ensure that content is understandable and usable for users who rely on assistive technology to interact with and comprehend screen content.

Audit: Audit verification testing by external parties.

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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

Stakeholders

- Strategy & Digital Testing
- Product ownership
- Communications approach
- Stakeholder engagement

Inception

- Onboarding
- Coaching
- Training
- Location management

Team

- Team sizing and structure
- Quality standards
- Tooling and automation
- Metrics

Process Integration

- Demand
- Branching and merging
- Testing approach
- Path to live

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 access to industry experience, insights, and technology capabilities 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



Defence and Intelligence



Public Safety and Policing



Healthcare



Life Sciences



Tax and Revenue Management



National Infrastructure



Social Care



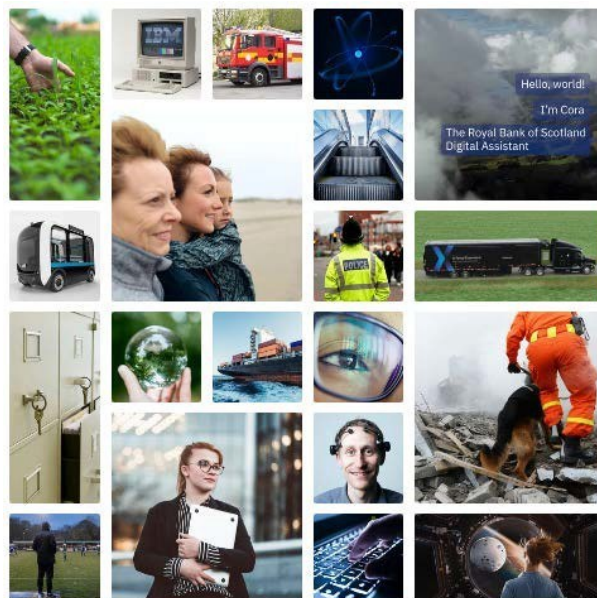
Education



Works and Pensions

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**



Changing the world

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



Tech talent

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



Economy

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



Royal recognition

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



Inventors

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



R&D

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



Diversity

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



Quantum

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



Graduates

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



Environment

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



Volunteering

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



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.

