DXC TECHNOLOGY

AI-powered testing at DXC Technology

Understand and accelerate the use of AI in applications testing processes and tools

DXC Public

The role of AI in modern application testing

In recent years, the software development industry has faced mounting pressure to deliver high-quality software faster and with fewer resources.

The rise of large language models (LLMs) and generative AI (GenAI) has transformed AI from a potential advantage into a fundamental component of modern software engineering.

While traditional testing approaches have been effective, they often struggle to meet the demands of modern development cycles. Manual testing, for example, can be slow, error-prone and resource-intensive. The increasing complexity of applications, coupled with the need for rapid release cycles and frequent updates, has created new challenges in ensuring comprehensive test coverage.

Despite steady advances in test automation technologies, software testing continues to be a bottleneck for organizations. Software engineering leaders and teams find it difficult to expand testing coverage without sacrificing speed and quality.

The evolution of artificial intelligence (AI) and machine learning (ML) is transforming the way we approach software testing. AI opens up new possibilities for automating and optimizing testing processes, addressing long-standing industry challenges such as scaling test coverage, managing complexity, accelerating release cycles and enhancing testing accuracy.

At DXC Technology, AI and ML are integral components of our testing services.

What is AI-powered testing?

AI-powered testing is a transformative approach that integrates AI and ML technologies across the entire software testing process and its associated tools. It streamlines and accelerates the testing life cycle by incorporating AI at every stage of testing — from analysis and planning to test design, execution and reporting.

How do people and AI collaborate?

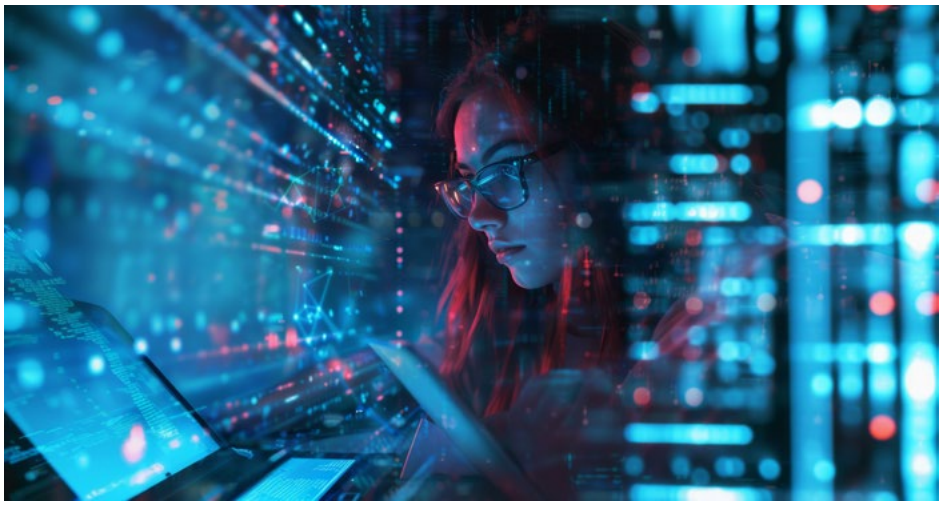
AI takes on the repetitive, resource-intensive tasks traditionally handled by humans, managing the heavy lifting of test creation, execution, results analysis and other time-consuming activities. This enables human testers to focus on higher-level strategic decisions.

Meanwhile, test engineers step into more strategic roles, acting as orchestrators who guide AI, interpret its results and make critical decisions based on the insights it generates.

This collaboration between AI and humans boosts efficiency, enabling faster, more accurate testing while allowing testers to focus on solving problems and driving innovation — areas where human creativity really excels, unlike the routine tasks where AI simply outperforms us.

AI-powered testing represents not just a technological evolution, but a paradigm shift in how we approach software quality.

With this understanding of AI-powered testing and its transformative potential, let's delve into how exactly DXC leverages these technologies to redefine software testing.



AI-powered testing at DXC

AI-powered instruments are transforming software testing by enhancing efficiency, enabling early defect detection and maintaining consistency across various testing levels, including unit, API, functional and nonfunctional testing.

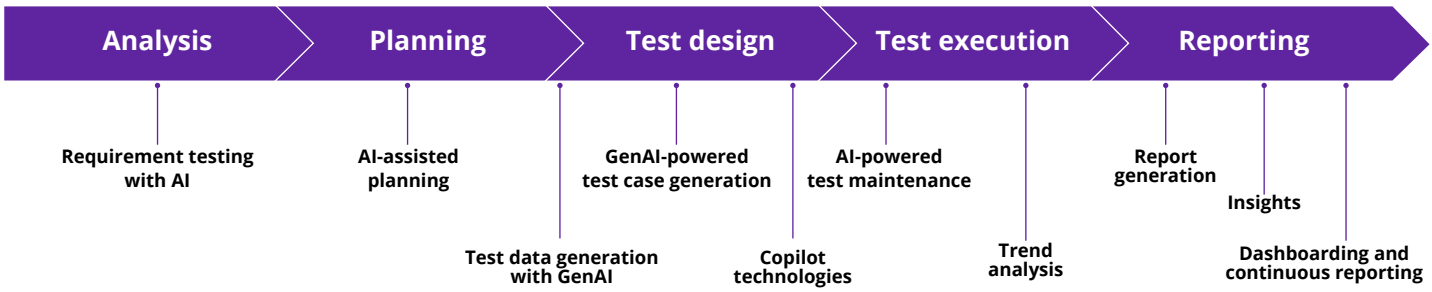
At DXC Technology, we deliver unmatched testing services by combining best-in-class AI-enabled testing solutions from our partners with our proprietary AI-driven testing tools.

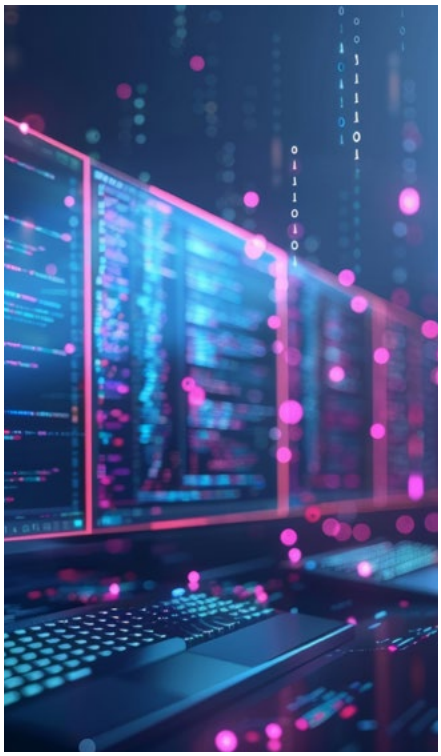
This strategic combination allows us to remain at the forefront of AI innovation while streamlining processes, enhancing testing accuracy and delivering superior outcomes.

DXC Quality Engineering

To further empower organizations with AI-powered testing, we offer DXC AI-Readiness Testing Advisory Services. This service is designed to help DXC's enterprise clients navigate the complexities of adopting AI technology in their software testing processes. Through comprehensive assessments, evaluation and actionable recommendations, our experts guide clients in implementing AI-driven testing strategies. We help organizations understand how to integrate AI seamlessly into their existing workflows, so they can unlock the full potential of AI-powered testing while aligning with their business goals.

By applying these capabilities across key areas of the testing cycle, DXC's AI-powered services help organizations meet modern challenges head-on — enabling faster, more reliable and cost-effective software delivery.





With a combination of DXC's AI-driven testing tools and the best-in-class technologies of our strategic partners, we help you address some of the most challenging and resource-intensive aspects of the software testing cycle:

- **Requirements testing.** AI can be used to analyze and validate requirements for clarity and accuracy.
- **Test case generation.** Automate the creation of comprehensive and optimized test cases, ensuring coverage of all critical scenarios while reducing manual effort.
- **Synthetic test data generation.** Generate realistic, privacy-compliant test data that mimics production data, ensuring diverse scenario coverage without exposing sensitive information.
- **AI-assisted test planning.** Leverage AI to analyze historical test data, application changes and business priorities to optimize test strategies. AI helps assess risks, prioritize testing efforts and allocate resources efficiently for maximum impact and minimal redundancy.
- **Self-healing test automation.** Test scripts adapt automatically to application changes, reducing script maintenance efforts and preventing disruptions in testing workflows.
- **Defect prediction and triage.** With AI-driven analytics and ML models, potential defects can be predicted before they occur. AI classifies, prioritizes and assigns defects based on severity, historical data and impact analysis, enabling teams to resolve critical issues faster while reducing time spent managing defects.
- **Proactive testing strategies and AI insights.** Historical data, real-time analytics and AI-driven insights can be used to predict high-risk areas in an application, so teams can focus on the most vulnerable components. AI-powered analytics enhance exploratory testing by identifying untested paths, generating intelligent test suggestions and providing real-time insights that guide testers in uncovering defects beyond scripted test cases. In addition, AI-driven dashboards and predictive models offer actionable insights that help teams optimize coverage, detect anomalies and make data-driven decisions throughout the testing life cycle.

At DXC, AI-powered testing is more than just a standalone capability. We integrate it across the entire software development life cycle to:

- **Enhance requirements engineering.** AI helps identify ambiguities and inconsistencies in requirements early, ensuring clear, actionable specifications for development.
- **Accelerate development cycles.** AI-driven continuous testing and real-time feedback support faster iterations and smoother integration in Agile and DevOps workflows.
- **Empower data-driven decision making.** AI provides actionable insights, enabling teams to prioritize efforts and make informed decisions across development, testing and business functions.
- **Support quality engineering and shift-left practices**. AI ensures that quality is embedded early in the process, reducing defects and rework by validating code and functionality sooner.
- **Improve post-release monitoring and maintenance.** AI continues to provide insights after release, helping to identify and resolve issues in production environments efficiently.
- **Enable collaboration across teams.** AI facilitates seamless collaboration between technical and nontechnical stakeholders, ensuring alignment and shared understanding.

Our business-realistic testing approach

DXC's approach to AI-driven business-realistic testing ensures that test scenarios align not only with functional requirements but also with real-world production behavior. By leveraging AI to analyze usage patterns, risk factors and business priorities, we deliver transparent and actionable testing results that map directly to business objectives. This method enhances test relevance, optimizes coverage and ensures that software meets technical and business expectations with greater accuracy and efficiency.

By embedding business-realistic testing into the broader AI-powered testing services, DXC provides software reliability and enables organizations to drive innovation, enhance operational efficiency and achieve tangible business outcomes at every stage of the software development life cycle.

Maximize value with AI-powered testing

The increasing inclusion of GenAI capabilities in AI services is a key focus for DXC. We leverage GenAI to enhance our testing solutions, driving efficiency and quality in unprecedented ways.

With GenAI-enabled instruments, clients can rapidly elevate their testing maturity. By integrating advanced AI capabilities into their testing workflows, organizations can transition from manual, error-prone processes to more robust, automated and intelligent testing approaches.

Competitive edge

AI-powered tools facilitate smarter decision making, optimize resource allocation and drive continuous improvements, enabling businesses to move swiftly from basic testing practices to more mature, predictive and adaptive testing strategies. This accelerated maturity shift improves testing efficiency while enhancing overall software quality, giving organizations a competitive edge in the market.

AI automates routine tasks and enhances areas of testing that were once slow, manual and resource-intensive. We can now accelerate aspects of the testing life cycle that were traditionally bottlenecks, driving efficiency, quality and speed throughout the entire process.

Measurable results

DXC's AI-powered testing services deliver measurable business results for our clients:

Faster time to market	Automation of testing tasks accelerates the entire development cycle, enabling quicker delivery of high-quality software. *For a major financial client, DXC **increased testing velocity by 30%**, leading to faster product releases and more frequent updates.*
Higher application quality	AI enables greater levels of test coverage than previously possible. In the past, achieving 90% test automation coverage was a labor-intensive and almost impossible task, but with AI, this target is now easy to attain. This means significantly more efficient testing and greater consistency of results. AI also helps proactively identify defects and continuously improve testing accuracy, leading to fewer production defects.
Cost savings	AI reduces costs by reducing manual effort and optimizing resources to make testing more efficient. *For a major UK insurance company, DXC **reduced testing costs 46%** within the first 6 months, freeing up resources for innovation and development of new features.*
Enhanced agility	AI-driven automation supports Agile development, allowing for faster iterations and seamless integration of continuous testing into the workflow. *For a fintech client, DXC **reduced testing artifacts review effort by 50%**, enabling quicker cycle times and more responsive development processes.* *For multiple clients in various industries, DXC **reduced test automation maintenance efforts by 70%**, enabling teams to focus on higher-value tasks.*
Risk mitigation	Predictive capabilities help identify potential defects early, reducing the risk of post-release issues and making products more secure. *For one client, DXC **reduced data breach risk 35%** by using an AI-powered security testing platform.*

DXC's AI-powered testing services represent the future of software quality assurance. By integrating cutting-edge AI technologies with proven testing methodologies, we help organizations accelerate time to market and achieve unparalleled quality and operational efficiency.

Contact us to find out how DXC can transform your testing processes and help you succeed in an AI-driven world.

Learn more at
dxc.com/quality-engineering

Get the insights that matter.
dxc.com/optin

About DXC Technology

DXC Technology (NYSE: DXC) helps global companies run their mission-critical systems and operations while modernizing IT, optimizing data architectures, and ensuring security and scalability across public, private and hybrid clouds. The world's largest companies and public sector organizations trust DXC to deploy services to drive new levels of performance, competitiveness, and customer experience across their IT estates. Learn more about how we deliver excellence for our customers and colleagues at **DXC.com**.

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