


# Testing in The Age of Generative AI

A practical guide to choosing the right platform for AI-powered continuous testing

# Generative AI is here and will transform the way testing is done.

**“Most teams utilize 5–10 disparate tools to test different technologies in an enterprise.”**

GitLab’s *2022 DevSecOps Global Survey*



For decades, testing leaders have been striving to maximize automation coverage to boost testing effectiveness and ensure new features or changes don't impact business operations.

Unfortunately, most testing is still done manually, which is costly and slow. Reliance on manual testing leads to poor quality of production systems and/or slower release cycles.

This is why testing is perceived as the biggest bottleneck to delivering value to customers.

Many testing vendors, perhaps the ones you rely on, added new capabilities by acquisition and are burdened with a bucket of tools that are poorly integrated with different architectures—requiring customers to use different tools to test or automate different technologies.

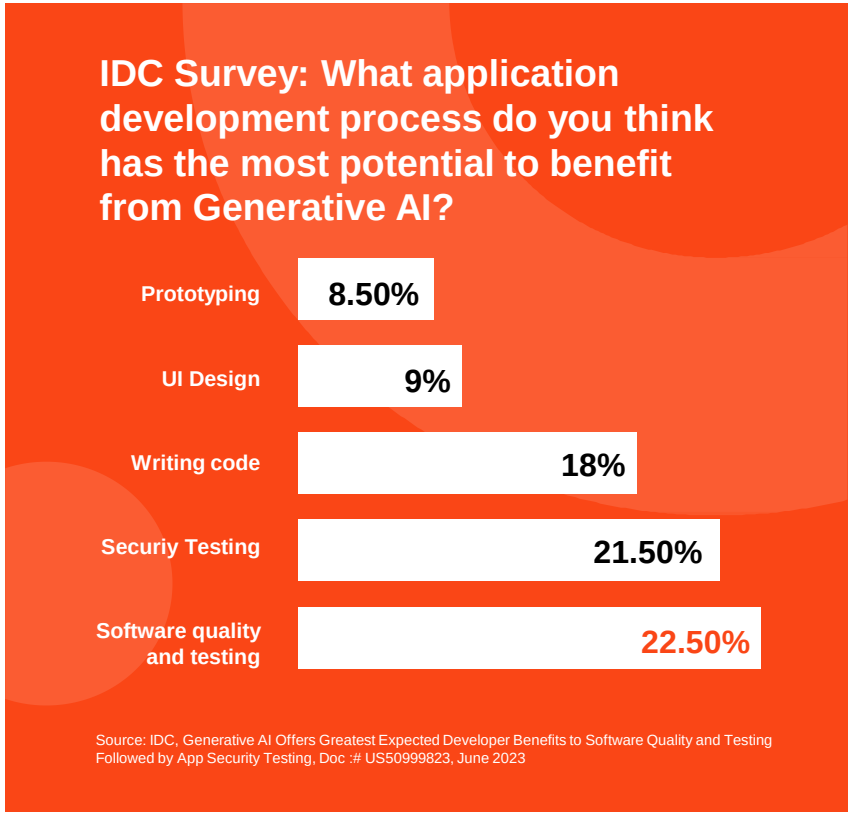
These piecemeal “platforms” are not architected to infuse AI into their existing capabilities and will impede their ability to apply and react to new AI innovations.

# Why is now the time to modernize?

A recent IDC survey asked respondents which area of software delivery will benefit most from Generative AI–testing takes the lead, followed closely by security testing and code generation (see IDC Survey diagram).

You now have the potential to achieve what was once considered impossible: maximizing testing coverage, automating the majority of your testing portfolio, and elevating each of your testers to become the best tester they can be.

Efficient automated testing leads to faster release cycles, reduced risk of production issues, and ultimately faster time to deliver new customer value in the form of software.



# Why is now the time to modernize?

Ready to get going? Here are some questions to get you started.

**1 Does the platform meet your basic needs?**
Does the platform cover the basics and provide the fundamental planning, automation, execution, and analysis capabilities for your team's unique needs?

**2 Is the platform enterprise-ready?**
Does the platform provide the enterprise capabilities to drive your scaling, reuse, compliance, and security needs?

**3 Is the vendor an AI innovator?**
Does the platform infuse AI and ML into their core capabilities with a security layer along with a robust roadmap and vision for responsibility?

**Customer Challenge**

CUSHMAN & WAKEFIELD

Cushman & Wakefield experienced significant inefficiency and decreased benefits from their extraction platform due to delayed release of new features and frequent manual regression testing.

# **The Basics:**
# Can the platform meet your bottom-line needs?

### Lifecycle and DevOps tool integrations

Does the platform integrate with your ALM, testing, continuous integration, and the rest of your DevOps toolchain?

### Requirements management

Does the platform support creation or ingestion of requirements, with full traceability between defects, results, test cases, and requirements?

### Test case management

Does the platform provide support for creating and managing test cases, including the ability to create logical test sets, order test cases, and create dynamic test sets?

### SAP change impact analysis

Is the platform certified for SAP? Does it provide visualizations to understand the quality of SAP? Can testing be scoped to only test around changes introduced?

### Test automation for all target software

Can the platform support every technology under test, including both what is being tested at present and any technologies that you plan to test in the future?

### AI-assisted test data generation

Does the platform enable creation of synthetic test data using AI to generate more realistic data to test every variation and edge case?



### Unified automation development environment

Does the platform support both technical and business testing roles with an IDE that enables the creation of coded or low-code automations that can be used interchangeably?

### AI object recognition

Does the platform include AI capabilities with multi-anchor unified targeting to reduce maintenance and improve test execution reliability?

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# **Enterprise-Ready:**
# Will the platform scale to address your evolving needs?

### Reliable execution orchestration

Does the vendor provide the ability to execute automations in parallel with more advanced orchestration, like triggers, schedules, and CI/CD integrations?

### Shareable component library and object repository

Can the automation components in the platform be shared in a library and used by other departments or teams?

### Third-party certifications

Does the vendor/platform have certification that your organization requires or prefers? (Inclusive of partner endorsements, like SAP, and official certifications, like FedRamp)

### Governance support

Does the platform meet your governance criteria? Does it include role-based permissions, access control, coding standards, and full audit trails?

### Strong community and training

Does the platform have a strong user community? How many users and customers are engaged? Does the vendor offer any complementary training?

### Migration and adoption services

Does the vendor offer competitive migrations? Can they migrate both test management and automation assets? Can the vendor provide references?

### Cloud-first architecture

How often does the vendor release features? Do they offer on-premises or hybrid options?



### Marketplace with prebuilt components

Does the vendor provide a marketplace of prebuilt components and accelerators? Are there components available that are relevant to your tech stack?

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# **AI Innovator:**
# Is the vendor positioned to deliver AI features?

### Test case generation
Does the vendor have working software to generate step-by-step test cases from requirements or other source documents?

### Test automation generation
Does the vendor have working software to generate code from natural language comments, test steps, or other source documents?

### AI-assisted results analysis
Does the vendor provide the ability to leverage Gen AI to assist in results analysis?

### AI models
Can you host AI models in the platform? Do they provide templates? Can you bring your own models? Can they be easily trained?

### Ability to customize AI/ML prompts
Does the vendor allow you to customize any codified prompts so that the prompt is more aligned to your organization's approach?

### Interactive prompts and document ingestion
Does the vendor hard code prompts and output? Or do they allow you to freely interact with any prompts and feed the model any documents?



### Dynamic AI roadmap
Does the vendor have a public roadmap that is dynamic yet achievable?

### Strategy for responsible AI
What is the vendor's approach to safeguarding your proprietary data and models? Do they provide connectors for safely interfacing with popular LLMs?

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# Does the platform and vendor deliver results?

**1 Reduced Risk?**
Can the solution reduce the risk of introducing defects into production? By how much?

**2 Reduced Cost?**
Does the solution reduce the cost of testing? By how much?

**3 Accelerated Continuous Delivery?**
Does the solution ultimately improve time to market? How much faster?

**Ask for success stories relevant to your industry, domain, or technology under test**

**Look at the vendor's track record for delivering test features on-time and in-scope**

**Investigate third-party recommendations, analyst reports, partner network, and peer review sites**



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# UiPath supports every testing role in a unified environment

UiPath Test Cloud, powered by the UiPath Business Automation Platform, provides an open, extensible platform that offers a unified experience for continuous testing with capabilities to assist every role.

Whether testing is your primary role, you're a developer who tests your code, or you're a business analyst who performs acceptance testing.



**Analysts**
Simplified acceptance testing and empowered to create low-code automations



**Testers**
Efficiently plan, automate and execute tests for new features and software releases



**Developers**
Unit test software with coded automations

# Go beyond the basics with the UiPath Platform

**The UiPath Advantage:**

## Open & Extensible:

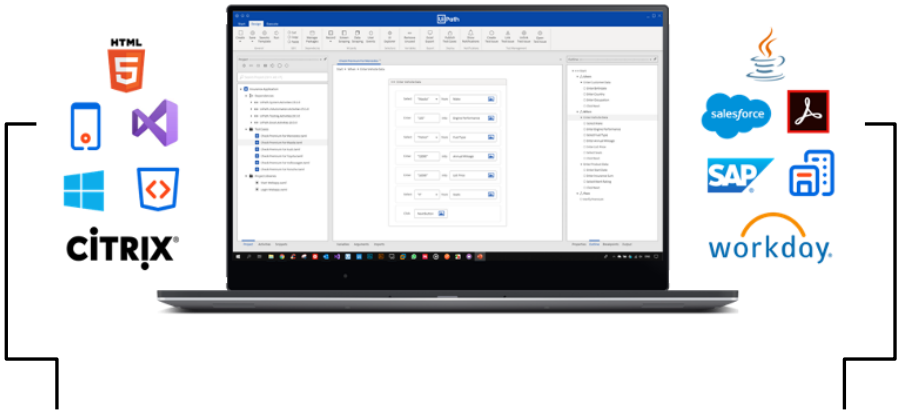
Integrate Test Cloud with more than 50 connectors to common lifecycle and DevOps tools, including Jira, ServiceNow, Azure DevOps, SAP Solution Manager, qTest, Micro Focus ALM, Jenkins, and more.

## Unified Automation for All

With UiPath Studio, you can leverage a development IDE that enables technical or business-oriented testers with the choice of coded or low-code authoring. In addition, UiPath provides AI-powered test data generation to test every data variation.

## Comprehensive Automation

UiPath enables automation of virtually any technology, including desktop, mobile, web, RPA, API, SAP, Oracle, and Workday, and provides AI computer vision to test legacy, virtualized desktops, or intricate interfaces.




**Unified**
One IDE supports every tester with coded or low-code automation

**Open and Extensible**
Integrates into your DevOps and ALM toolchain with 50+ connectors

**Comprehensive**
Automation support for virtually any technology

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# UiPath is enterprise-ready

**Customer Solution**

CUSHMAN & WAKEFIELD

In partnership with Ashling Partners, Cushman & Wakefield deployed UiPath Test Cloud to automate the intensive test cases needed to thoroughly test the SaaS application.



Why do Fortune 500 companies like Cisco, NatWest, and VMware trust UiPath for continuous testing? UiPath provides enterprise-grade automation capabilities that the other test vendors cannot provide.

### Production-grade automation

UiPath offers multiple identification methods, including multi-anchor unified targeting, a remote runtime extension for external machines, and AI Computer Vision to test virtually any application in a single end-to-end test scenario.

### Elastic orchestration and IT automation

UiPath offers 'orchestration-as-a-service' either built-in via Automation Cloud or via IT Automation solution for customer-managed deployments.

### FedRAMP Certified

UiPath is now trusted to process data securely and transparently for U.S. citizens and U.S. government bodies.

### Cloud-first flexible architecture

UiPath products are built from the ground-up by our product team of over 500+ engineers. Any tools obtained via acquisition are rebuilt as part of the platform.

### Vibrant Community

UiPath has an active community of over 100,000 users, with a free community edition and free training.

### Migration Services

UiPath offers services to migrate both test management and automation assets from any legacy provider to accelerate modernization of your team.

# UiPath provides practical and safe AI

From the beginning, UiPath incorporated Specialized AI like Computer Vision and Document Understanding. Now, it is set to offer Generative AI features through UiPath Autopilot experiences and gateway connectors to well-known LLMs to support activities such as synthetic test data generation and test generation.

**The UiPath Advantage:**

### Safe AI:
UiPath provides a Trust Layer that safeguards customer data as you explore and adopt new Generative AI experiences.

### Flexible AI:
Bring your own ML models, use our out-of-the-box models, or select third party options. Regardless of which you choose, you'll be able to bring them into production quickly and rapidly train them.

### Dynamic Investment and Roadmap:
Test Cloud continues to deliver new AI features with a vision of AI, progressing from a reactive assistant to a trusted partner that executes tests autonomously.

### Generative AI:
While some vendors are struggling to deliver working AI, UiPath customers are already using Autopilot™.

**"TuringBots can help automate and test smarter instead of hyperautomating all tests — increasing quality by automating more with less effort."**

**Forrester Research, The Future of TuringBots, 2023**



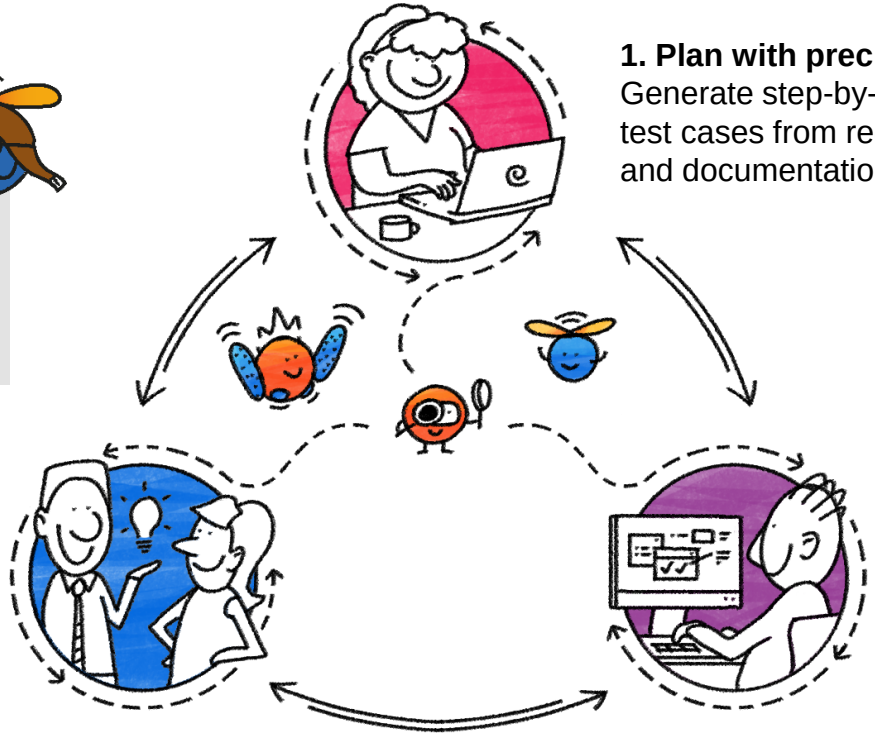
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# Autopilot™ for Testers



**Autopilot is your partner for AI at Work**

Try Autopilot Today



**1. Plan with precision**
Generate step-by-step manual test cases from requirements and documentation.

**2. Automate faster**
Generate automations from comments, test steps, and documents.

**3. Answers without effort**
Generate actionable reports from results and logs to understand what happened and, more importantly, why it happened.

# UiPath has a track record of test success

**The UiPath Advantage:**

**Improves Quality:**
Maximized automation coverage and resilient execution leads to 60-80% fewer defects on average.

**Unified Automation for All:**
Consolidation of tools and flexible licensing result in 50% reduction in costs on average.

**Accelerates Value Delivery:**
Improved efficiency of automation and precision execution drives an average of 5-10X improvements in release speed.

**Organization Synergy:**
Enterprises that have standardized on UiPath for automation across test and automation COEs experience 50% less maintenance, decreased training costs, and reduced upskilling costs, ultimately saving up to $4 million per year on average.

**Automate Beyond Testing:**
Best-in-class Process Mining, Process Automation, Document Processing, and Apps are now available for your organization.

**Customer Outcomes**

CUSHMAN & WAKEFIELD

Cushman & Wakefield automated **95% of regression testing**, significantly reducing the **testing cycle time by 90%**, allowing Cushman & Wakefield to accelerate the implementation of their **key strategic initiative.**

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# Discover why UiPath Test Cloud is the best choice for your team

UiPath is the only testing platform that offers AI-powered production-grade automation with Autopilot™ technology to make testing more efficient and rewarding. Users can continuously test virtually any technology, enabling teams to build automations more quickly, execute with precision, and proactively fix issues to keep business operations running smoothly.

**Testing and QA doesn't have to be a cost center. Turn it into an enterprise-wide value driver for your business today.**

Explore UiPath Test Cloud




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# About UiPath

UiPath develops AI technology that mirrors human intelligence with ever-increasing sophistication, transforming how businesses operate, innovate, and compete. The UiPath Platform™ accelerates the shift toward a new era of agentic automation—one where agents, robots, people, and models integrate seamlessly to drive autonomy and smarter decision-making.

Powered by the UiPath Platform™, UiPath Test Cloud augments testers with enterprise-ready, production-grade, test automation for 190+ technologies and AI agents for agentic testing—the next evolution of software testing.

**For more information, visit uipath.com**

## Sources:

Gartner

A Leader in the 2022 Gartner® Magic Quadrant™ for RPA

**Get the report**

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FORRESTER

A Forrester Wave™ Leader for Robotic Process Automation, Q1 2021

**Get the report**

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Everest Group

Everest Group Robotic Process Automation Products PEAK Matrix® Leader 2022

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IDC

Debuted as Leader in IDC MarketScape for Worldwide Cloud Testing Vendors 2022

**Get the report**

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