UiPath
AGENTIC AUTOMATION

Agentic testing for financial services:

Reducing risk, accelerating change, ensuring compliance

Enterprise-Grade, Agentic Testing for Financial Services

Unlock faster releases, reduce risk, and stay compliant with resilient, AI-powered testing built for the complex needs of modern financial institutions.

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Introduction:

What financial services organizations should look for in enterprise-grade, agentic testing

Financial services organizations operate in some of the most complex and high-stakes technology environments in the world. From balancing decades-old legacy systems with ongoing cloud migrations, to adopting modern fintech innovations—all while staying compliant with regulations like the Digital Operational Resilience Act (DORA), Payment Card Industry Data Security Standard (PCI DSS), and Sarbanes-Oxley Act of 2002 (SOX)—the challenges are multifaceted and relentless.
Mission-critical applications span core banking platforms like FIS, Fiserv, and Jack Henry, policy administration systems such as Guidewire and Duck Creek, customer-facing digital channels, and in house systems - both legacy and modern (Unqork, Outsystems). These systems must be fast, secure, reliable, and continuously evolving. That's why testing in this industry must be equally agile, comprehensive, and resilient.

Yet, many organizations find themselves limited by current testing solutions—especially those rooted in web-based or open-source origins. These tools often fall short when supporting the variety of technologies that financial services institutions depend on, especially legacy solutions that far outdate compatibility with newer fintech solutions. But most importantly, they lack the compliance rigor needed for such a tightly regulated industry.

Challenge with Traditional Tools	Impact on BFSI Testing
Web-centric or open-source origin (e.g., Selenium, Cypress)	Can't address mainframe, Citrix, SAP, or desktop apps used in core banking and insurance
Lack of legacy system compatibility	Breaks or fails in older core banking systems; high test maintenance
Fragmented ecosystem	Requires multiple tools stitched together for test case mgmt, execution, and reporting
Developer-heavy tools	Non-technical QA teams struggle; limits testing to a small user base
Manual testing for automation gaps	High overhead to keep tests in sync with fast-changing fintech solutions

This is where agentic automation platforms make a huge impact. By combining AI agents, resilient automated testing, and enterprise-ready compliance features, modern platforms empower financial services institutions to innovate confidently while mitigating risk.

This whitepaper explores the key capabilities required in a modern, agentic testing platform, and provides practical guidance on how to put those capabilities into practice—covering everything from pilot identification to full-scale rollout and change management.

So, what exactly are the world's top financial services organizations looking for in a testing solution today?

Agentic testing refers to the use of intelligent, goal-driven software agents that plan, execute, and adapt test processes with minimal human intervention. These agents combine reasoning, contextual awareness, and automation to operate with autonomy—bringing speed, accuracy, and resilience to testing programs.

Seamless testing across legacy, migration, and emerging technologies

Financial services institutions often run a complex mix of technology—from legacy mainframes and thick-client systems to cloud-native applications and fintech integrations. These systems don't operate in isolation. They coexist, evolve, and must work seamlessly together.

The challenge? Ensuring functionality and security across all platforms as institutions modernize. Many testing providers can't keep up.

Many testing tools often:

- Lack robust support for legacy systems such as mainframes and thick clients.
- Require manual workarounds or third-party tools to test anything beyond web or mobile apps.
- Struggle to meet enterprise-level compliance and security requirements.

That's why leading financial institutions are turning to UiPath. Agentic testing with UiPath Test Cloud provides production-grade, end-to-end automated testing using intelligent AI agents. These agents adapt to evolving tech stacks, ensuring continuity and resilience across both legacy and modern applications—without compromise or complexity.



Built for compliance and industry-specific regulations

In financial services, compliance is not optional. Testing solutions must meet the requirements of stringent regulatory standards like DORA, PCI DSS, and SOX. Moreover, they must support seamless integration with industry-specific platforms like Guidewire, Duck Creek, Fiserv, FIS, and Jack Henry.

These systems power critical operations—from policy and claims management in insurance to payments and account services in banking. Without testing solutions that are deeply integrated and compliance-ready, financial institutions face real operational and reputational risk.

How UiPath Helps: UiPath Test Cloud is built with compliance at its core. It provides:

- Audit-ready reporting
- Role-based governance controls
- Resilient test automation that meets the expectations of regulators and internal audit teams alike

Whether you're testing claims workflows or account reconciliation logic, UiPath ensures you're always in control—and always in compliance.

Capability	Legacy Testing Tools	Agentic Testing
Change impact analysis	Manual, time-consuming	AI-driven via object repository and link to test cases instantly
Documentation for audits	Often incomplete or inconsistent	Auto-generated, standardized with logs, screenshots, and version histroy
Regulatory change response	Reactive, requires full test reruns	Proactive, targeted testing recommendations to map to regs
Evidence of test coverage	Fragmented	End-to-end traceability with visual reports link tests to rules/processes

Autopilot for Testers is transforming testing in financial services

Autopilot for Testers is a breakthrough capability from UiPath that brings AI agents directly into the testing process. It combines built-in and customizable AI to support every phase of the testing lifecycle—making it easier, faster, and smarter to ensure software quality at scale.

Here's how Autopilot helps financial services firms:

- Speeds up testing: Autopilot automates labor-intensive testing tasks, accelerating the release of high-quality applications in banking and insurance.
- Reduces risk: With features like auto-healing tests and fuzzy verifications, Autopilot helps ensure systems remain stable even as codebases evolve.
- Lowers costs: By cutting down on manual testing hours, teams can reallocate resources to higher-value initiatives.
- Maintains accuracy: Precision is essential in financial applications—Autopilot helps ensure data integrity and transaction accuracy.
- Prepares for the future: Financial institutions must be ready for constant change. Autopilot enables organizations to test faster, adopt emerging tech more easily, and stay competitive.

The result? Faster releases, fewer defects, and greater confidence in every application deployed.

Customer spotlight

State Street : Leveraging automation to future-proof application testing

> The team doesn't want to do manual testing—just as much as management doesn't want them to. [Automation is] freeing up their time to work on more valuable tasks.



Brandon McCormick
Global Head - Alpha Testing Practice
Managing Director at Alpha
Professional Services

Customer spotlight:

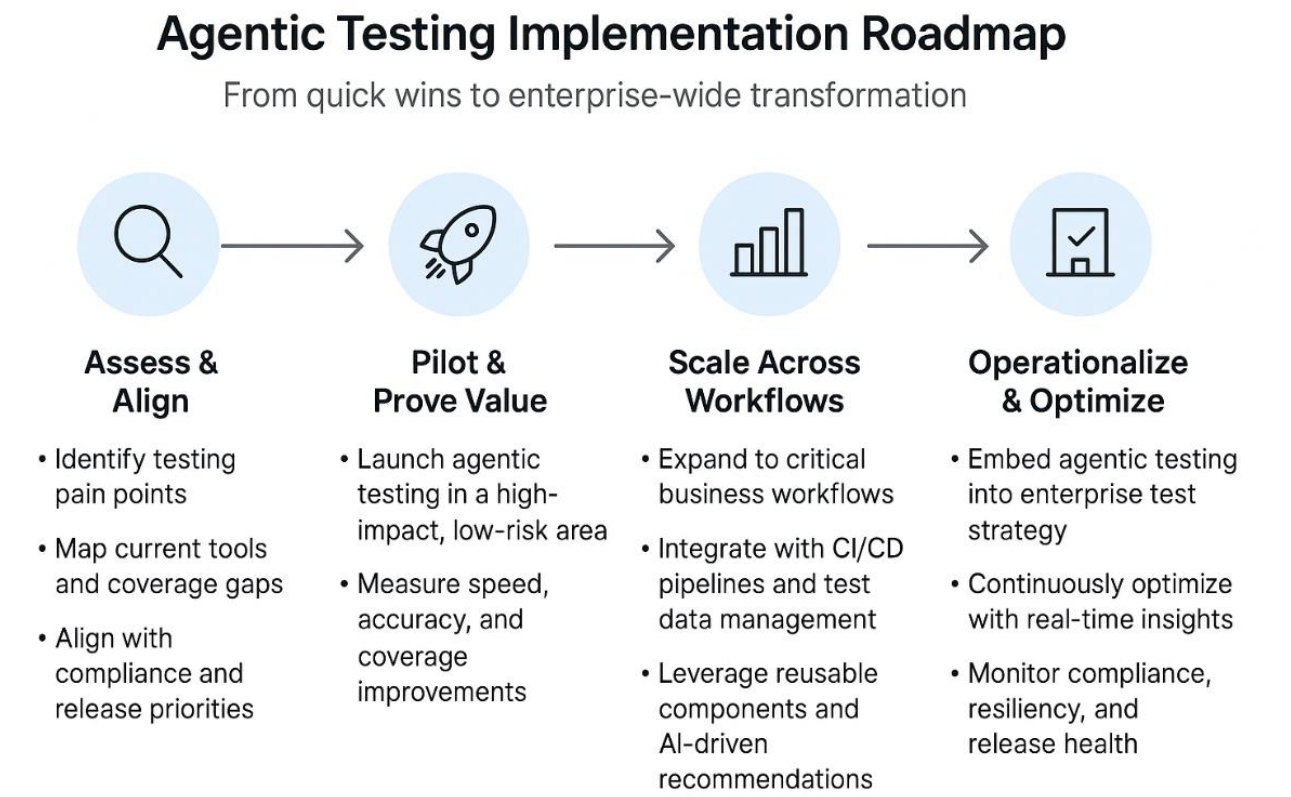
JP Morgan: Transforming IT Application testing with UiPath

Implementing agentic testing at scale isn't just about selecting the right tools—it's about having a clear, realistic roadmap for rollout, integration, and long-term success. Here are the key elements financial services leaders should consider:

Representative implementation roadmap

Financial services organizations often start with an assessment of their current testing landscape, identifying gaps in coverage, speed, and resiliency. From there, a typical roadmap includes:

- Asses: Identify where testing bottlenecks and pain points currently exist
- Pilot: Select a high-impact area (such as claims testing or loan origination) to introduce agentic testing.
- Scale-up: Expand coverage to additional lines of business and integrate with CI/CD pipelines.
- Production rollout: Embed testing as a continuous, automated practice across the enterprise. Optimize and improve over time.



How to identify initial use cases or POCs To maximize ROI and build early momentum, institutions should:

- Focus on high-risk or highly regulated areas (e.g., payment systems, policy admin systems).
- Target repetitive testing processes that currently require significant manual effort.
- Prioritize integrations where legacy and modern systems must interact seamlessly.

Best practices for productionalization. Successful rollout to production involves:

- Establishing centralized test governance and reusable components.
- Implementing consistent test data management practices.
- Leveraging AI agents to maintain and self-heal test scripts.

Managing organizational change and headcount implications.

Shifting to agentic testing involves cultural and structural changes, such as:

- Reskilling manual testers to become automation designers or AI supervisors.
- Clarifying roles between developers, testers, and business analysts.
- Driving buy-in with executive sponsorship and quick wins.

Managing organizational change



- Reskilling manual testers to become automation designers or AI supervisors
- Clarifying roles between developers, testers, and business analysts
- Driving buy-in with executive sponsorship and quick wins
- Establishing change champions within QA, development, and business teams
- Redefining team structures to support cross-functional collaboration around AI-driven testing initiatives
- Planning workforce impact proactively, including potential redeployment, upskilling paths, and retention strategies
- Aligning incentives and KPIs with agentic outcomes—like test velocity, coverage, and compliance metrics



Conclusion

As financial services organizations navigate increasingly complex technology stacks and tighter regulatory environments, testing must evolve to meet the moment.

UiPath Test Cloud delivers what modern institutions need: enterprise-grade, resilient, and intelligent testing that supports 190+ applications and technologies—from legacy systems to cloud-native platforms.

But success requires more than just the right platform. It takes a strategic approach to implementation, starting with targeted pilots, clear productionalization best practices, and thoughtful change management that equips teams for the future of work.

With built-in agentic capabilities and compliance-first design, UiPath Test Cloud helps financial services organizations release faster, reduce risk, and innovate with confidence—while laying a clear path to scale.

Next Steps:

👉 Check out the on-demand webinar
💬 Contact our team to discuss your testing challenges mike.buttrum@uipath.com