

Improving the Financial Application Landscape through Innovative Testing



As companies in the financial/banking industry diverge from the complexities of legacy systems, an entirely new world of IT services is made available. A new class of IT systems, custom delivered to tailor to the specific needs of the customer at a variable cost rate, eliminates waste and maximizes ROI. At the heart of all of this—Testing. The adoption of a Testing Center of Excellence can reduce the amount of time required for test execution, resulting in faster speed-to-market and increased test coverage, all while achieving landscape-wide cost savings.

With advancements of application capabilities, digital coverage, and mobile development and availability, the financial industry is experiencing constant change to support the rapidly evolving technological landscape. Between increasing security risks, staying ahead of technological trends, and adhering to strict regulation, the task of maintaining these IT frameworks is far from simple. Leveraging test automation and adopting a Center of Excellence model for testing have proven as top priorities for companies in the financial industry.

What makes updated testing practices so important?

Modern financial institutions face a number of challenges when it comes to protecting their systems. One of the biggest issues in doing so can be the pesky resilience of legacy systems. Many were developed more than 50 years ago, and widely considered outdated, though they remain in use throughout a vast majority of the industry. A ZDNet report found that only 27 percent of modern universities that operate detailed IT courses keep COBOL (an antiquated programming language) in their curriculums, though more than 70 percent believe the language will exist for at least the next decade (1).

While still functional, these systems are typically licensed and highly customized, making the task of upgrading difficult and costly. As more and more SaaS based options enter the market, the systems are less expensive, flexible to the changing landscape, and a sustainable solution.

Why is independent software testing important for the Financial Industry?

IT executives are under increasing pressure to deliver sound, top-quality applications quickly while keeping costs low. The expectation to deliver quick speed-to-market, coupled with the complexities and regulations of developing applications in the financial industry, create a landscape where testing is of vital importance, and can result in vast improvements in speed, cost, and ROI.

Benefits	Features
Reduced Costs and Streamlined Operations	<ul style="list-style-type: none"> • Reduced costs for hiring, onboarding, training, and supervising management, technical, and functional testing personnel • Opportunity to redirect internal management resources to higher value strategic projects and processes • Predictable, consistent costing structure via a variety of engagement pricing models, including fixed price, time and materials, and outcome-based pricing

Benefits	Features
Reduced Risk by Relying on the Experts	<ul style="list-style-type: none"> • Commitment to best-practice testing methodologies and techniques • Streamlined testing tools to generate test cases, and thus test results, more quickly • Re-use of successful testing artifacts via knowledge management libraries and repositories
Improved Flexibility and Productivity	<ul style="list-style-type: none"> • Reduced management and administrative time in dealing with on- and off boarding personnel • Capability to flex resources up or down rapidly, as required by project needs • Flexible nearshore, offshore, onshore, and hybrid delivery models

Trust the Experts

It is naive to think that expert software developers are also expert software testers. Good software testing is a professional and highly specialized skill, and should not be a mandatory obligation to check off the list at the end of the SDLC. Application failures at crucial points in processes or transactions are expensive, resulting in revenue losses and customer dissatisfaction. Why not trust the experts?

Achieve Better Software Quality

Software testing experts know how to create objectives and scenarios that end-users will experience. More importantly, the speed to market for updates and new applications will improve dramatically upon implementation of best practices.

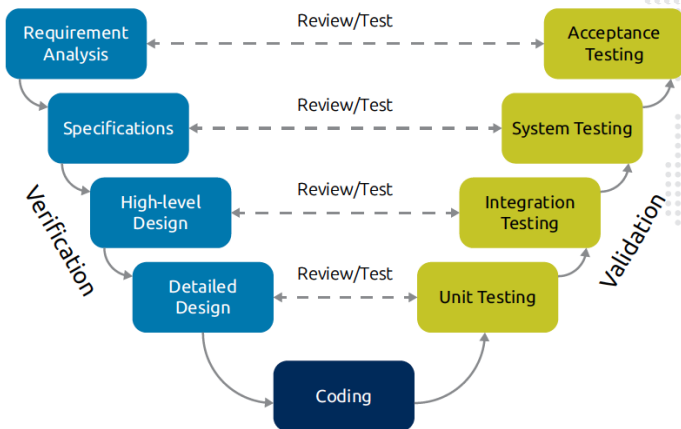
Save Money

Hiring your own full-time employees for testing can be expensive and ineffective. It means your company has to hire and train staff for a specific project, so you will likely have benchwarmers and surplus employees at some point. Hiring a scalable, independent testing team for a specific project is a smart, cost-effective alternative. Updated testing methodologies can also improve your ROI through increased efficiencies.

Rely on Best Practices

Best practices ensure your software is running as smoothly as you envisioned. One such best practice is the V-model, which significantly reduces post-production defects through a structured approach to testing; because of the verification and validation process, testing is planned from the early stages of the SDLC. The process ensures thoroughness through multiple checks in the verification and validation phases.

Fig 01: The V-Model



What is a Testing Center of Excellence?

There are a lot of independent software testing options out there. Choose one that has standards and regulations. A Testing Center of Excellence (TCoE) is a unique framework for software testing, integrating strategic assets—people, process, tools, expertise, and technology—to govern how a testing organization engages and delivers highly efficient testing services to the larger enterprise. It has established goals, well-defined processes, multi-disciplined skill sets, and common tools and technologies.

Fig 02: Testing Center of Excellence Framework



TCoE Frameworks and Benefits

- Scalable framework based on standardized and repeatable processes
- Earlier detection and resolution of defects lowers costs of repair/rework
- Resource and tool optimization improve productivity and efficiency
- Transparent governance ensures accountability and results
- Flexible resource pool to support multiple projects ranging in complexity

Geographic Considerations: Onshore, Nearshore, or Offshore

Companies are looking beyond the constraints of geography to address their independent testing needs. Why? Because there are more geographical options than ever. Offshore and nearshore are now viable options thanks to excellent overseas IT certifications and universities. In fact, Forrester and Gartner report that out of the total outsourcing business generated, 32% of it is shared by testing alone.

Geographic flexibility allows companies to take advantage of a range of cost and personell options, providing them with the ideal solution to fit their business needs. With offshore options, 24/7 coverage is possible, allowing for reduced cycle times and round-the-clock project maintenance.

Onshore	Nearshore	Offshore
Testing takes place in the United States	Testing takes place in Latin America	Testing takes place in lower-cost locations such as India, China, the Philippines, and Singapore

The Benefits of DISYS' Testing Services

DISYS' proven testing and quality assurance approach ensures that expected system requirements and outcomes are delivered. We promote the implementation of automated testing to achieve testing results at a lower cost, in a shorter period of time, with increased ROI.

We conduct independent functional testing and quality assurance by applying a wide range of automated and manual test designs. Our significant experience with software testing tools includes Hotsos, tkprof, SQL Navigator, HP, QC, QTP, Rational, Mercury, TAO, SolMan, and Worksoft. DISYS also has experience using scenario creation and execution for Non-Functional

Testing such as volume testing, stress testing, spike testing, and endurance testing. And because DISYS believes in fostering partnerships through communication, you'll be kept updated on our testing status daily, weekly, and monthly.

Of DISYS' global locations (pictured), we have testing facilities nearshore (Brazil), offshore (Hungary and India), and onshore (Dallas).

DISYS Offerings

DISYS offers the full spectrum of software testing:

- Automated Testing
- Mainframe Integration
- Data Management
- Performance Testing
- Test Process Consulting
- Reporting and Metrics

Case in Point: A DISYS Case Study

Industry

Banking

Business Challenge

- Immature development and testing processes for ERP
- Integration of legacy system with the ERP
- Developers were unit testing their own code and not including/considering integration tests
- Numerous and rampant problems found during User Acceptance Testing requiring significant rework

The DISYS Solution

- Outsourced entire testing function to DISYS' Porto Alegre, Brazil Test Factory
- Testing Methodology for Verification and Validation implemented; leveraged from a best-practice V-Model
- Independently tested all developed code

Results

- Streamlined the implementation of testing cycles, increasing efficiency by 80%
- Implemented weekly and monthly reporting of test results and defects, collecting metrics for trends analysis and process improvement, and following up with face-to-face meetings
- Improved quality of testing through independence, thereby improving internal working relationships between IT and Business Line personnel
- Business/technical documentation, including regression test reports
- Test artifact re-use for better productivity in future implementations
- Provided test scripts for software developers to improve their own unit test quality before moving to independent testing cycles, decreasing rework and development cycles

(1) <http://www.zdnet.com/universities-wont-teach-uncool-cobol-anymore-but-should-they-7000012250/>

About DISYS

DISYS is an IT staffing and consulting company serving Fortune 500 and other global-scale enterprises worldwide. DISYS delivers strategic value by understanding and responding to a client's environment, problems, and challenges either by assembling the most highly talented team for any job or delivering more comprehensive, cost-effective IT solutions.

Incorporated in 1994 as a certified Minority Business Enterprise, DISYS currently ranks as the twelfth largest company in the staffing industry. DISYS is headquartered in McLean, Virginia, with offices and delivery locations worldwide.

