

# Outsourced Testing

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MindLance, Inc., established in 1999, is a leading provider of consulting, outsourcing and staffing services to Fortune 1000 and middle-market clients. A workforce of nearly 400 professionals are constantly endeavouring to add value by the minute to clients. Our strategy is to create a long-term partnership with our clients using a multi-faceted approach - applying domain expertise in specific industry segments, utilizing a highly-skilled technology workforce, leveraging a proven global delivery model, implementing quality processes & methodologies and being extremely cost-effective.

## Need for Outsourcing of Testing

Outsourcing the testing function – fully or partially - is a very viable option for customers. It provides independence, specialization, resource leverage and cost benefits. Outsourced testing runs into various forms.

The independence of testing from development is both well-known and extremely critical. Equally challenging is staffing the testing function and increasing the specializations.

In such a scenario, ask yourself the following questions:

1. Do I have frequency releases / minor releases which need to be tested for both the release scope as well as for regression?
2. Is our software required to comply to performance guidelines?
3. Do I need to have my software tested on multiple platforms, versions of OS?
4. Have I given adequate importance to usability in the development and can I benchmark the deliverables against the best in the business in usability?
5. Is there a domain competence I am building in testing?

Affirmative answers? You certainly need to definitely look at outsourcing the testing function.. Still wondering if outsourcing the testing function is right for your organization? Without any doubt, it is, since it provides several benefits

- Lower cost and profitability
- Greater efficiency in testing
- Improved time-to-market
- Focus on core business
- Enhanced coverage and quality of delivery
- Skill generation and training
- Staffing leverage – scale, flexibility, specialization
- Technological advancement

**Outsourcing of testing has multiple advantages: an independent testing team, parallel testing activities immediately after the requirements books / designs are completed for each version, scaling in resources and of course, a lower cost**

# Outsourced Testing

**Test-MATE is the branded Outsourced Testing offering from Mindlance. it offers a comprehensive basket of testing activities for customers, covering the following:**

- Testing for complete product / application engineering viz., Functionality, Usability, Integration, Installation, Performance, Compatibility, User Acceptance, Scalability and Security requirements.
- Following a rigorous testing process – from Test Planning to Test Runs and Reporting
- Rigorous usage of defect tracking systems. Our customers have a real-time online view of the bug discovery, status, aging and process statistics.
- Very experienced testing team which has been involved in testing software products for over 7 years – several versions of our own products and our clients' products have been tested by this team. It has built a rich base of experience in managing the testing function. Our testing staff spend a lot of effort in studying the domain, requirements and designs and test planning to arrive at effective approaches.
- Dedicated engagement time to clearly understand the end user context and roadmap to make sure the products are tested from that perspective.
- Use of testing tools for testing as preferred by the client engagement team.

**Test-MATE – the coverage advantage**

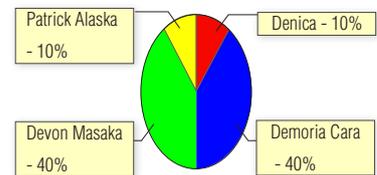
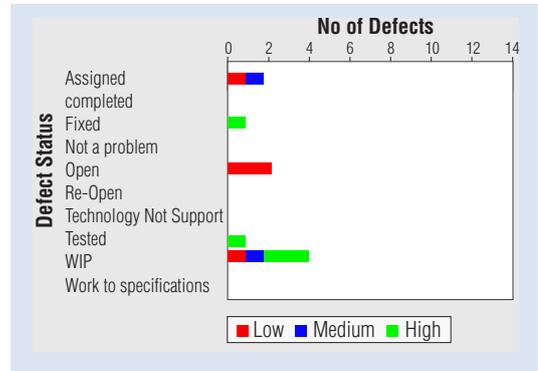
Testing Perspective	Items Tested	The Testing Process
Functionality	<ul style="list-style-type: none"> <li>☞ Accessibility, Flow, Black Box, Internationalization (I18N) and Localization (L10N), Data migration, platform migration, Module integration, regression, multi-tier, white box,</li> <li>☞ Full-feature functionality testing (of software projects / custom applications development)</li> <li>☞ Complete end to end product testing of software products (Outsourced Product Testing) across all releases</li> <li>☞ Scenario Testing / Use case based testing</li> </ul>	<ul style="list-style-type: none"> <li>• Business Use Case Analysis</li> <li>• Test Plan Development</li> <li>• Automated test cases for previously released functionality (regression and stress)</li> <li>• Manual testing especially for new features, flow-related issues and interoperability.</li> <li>• Test Run results and analysis</li> <li>• Reporting</li> </ul>
Interoperability	External interfaces, platform, Web Services / SOA and Web 2.0 Testing	
Usability	<ul style="list-style-type: none"> <li>☞ Home Page, page layout, Navigation, use of best practices</li> <li>☞ Hardware and Software</li> <li>☞ Headings, Titles</li> <li>☞ Text appearance</li> <li>☞ Links , Graphics, Multimedia and Images; multi-browser</li> <li>☞ Internationalization &amp; Localization</li> <li>☞ Search Facility, Accessibility, help/assistance</li> </ul>	
Security	Within and without firewalls, within applications (roles and access rights), Database level, communication level, External web application vulnerability	
Performance	<ul style="list-style-type: none"> <li>☞ Performance degradation curves                             <ul style="list-style-type: none"> <li>• Factors to consider during review non functional requirements</li> <li>• Understand actor profile, workload profile, software and hardware configuration</li> <li>• Prepare workload analysis model</li> <li>• Execute the workload analysis model</li> </ul> </li> </ul>	
Availability		
Robustness	Load handling and stress - Server Side Testing, Database Testing, Stress Testing	

# Outsourced Testing

## Test-MATE – the Real-Time Reporting Advantage

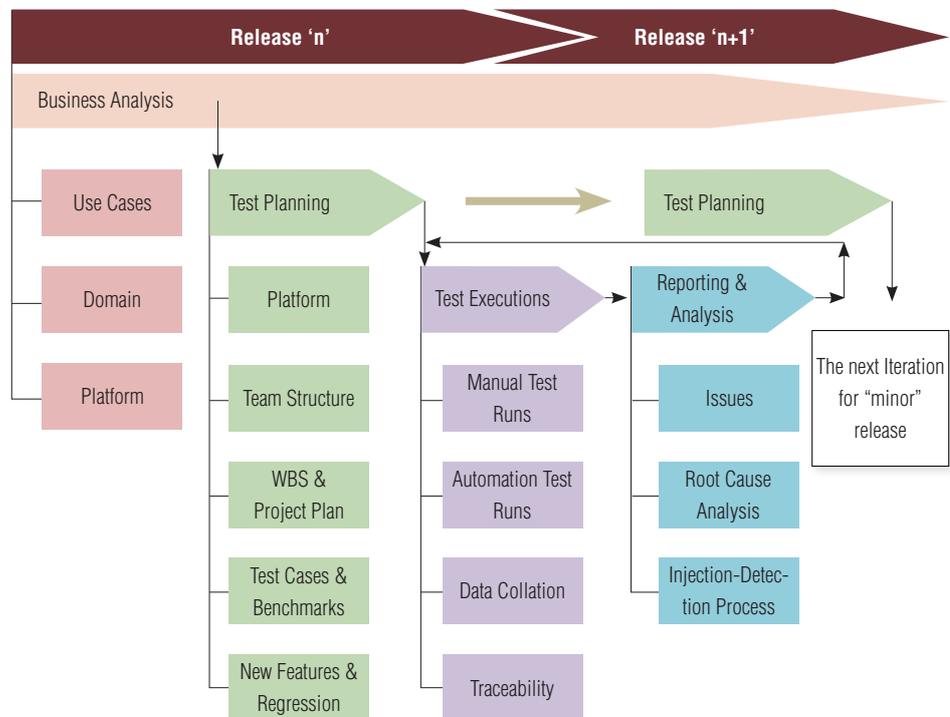
Our testing process is reporting-intensive and compliance-driven. As part of Test-MATE, we offer our customers a real-time window to the release-worthiness of software. Our reporting includes

- Outstanding issues – by release / feature-block / priority / source of issue / severity of impact and status.
- Aging of issues – by time and across releases
- Configurable dashboards with indicators of compliance against company / industry benchmarks.
- Issue-trend analysis
- Issues by Detection vs. Injection
- Issue Pipeline population
- Pareto charts of Root Causes
- Comprehensive dump of an Issue
- Issues by status and priority
- Alerts on pending issues – configurable SLAs for issue-resolution



## Test-MATE – the OPT Advantage

With over 300 person years of testing experience, our staff have a wealth of experience in building the right test cases, test planning, project execution and reporting and 'gating' the releases across product life cycles – the "Outsourced Product Testing" leverage.



# Outsourced Testing

OPT demands a continuous focus on business analysis towards ‘designing’ and ‘understanding’ the (new) releases and putting them all in a ‘consistent’ product roadmap. Our focus on business analysis, end to end system testing and roadmap approach have helped us deliver OPT services for several state of the art products.

## Test-MATE – the Manual & Automated Integration Advantage

At Mindlance, testing has only purpose – certify the quality of the release. Quality comprises functionality, usability, scalability, performance – usually all these attributes are tested in a pre-defined sequence. The choice of using manual or automation or both depends on mode and type of testing which varies according to the attributes of software, the stage of the PLC, the release definition.

Typically, we suggest / use automation for releases in the late-early to mature stages of the PLC for regressions, stress and performance testing – when volatility of functionality, platform and product / software architecture are arrested. We rely heavily on our key resources for in-depth business analysis and manual testing for releases in the early stages of the PLC with likely volatility in functionality

## Test-MATE – the “Agile” Advantage

The Problem	The Agile Advantage
<p><b>Increasing Use of Web Interfaces - SOA and Web Services</b></p> <p>Web 2.0 and SOA standards are driving the interfaces between applications and the interfaces within applications. The increasing use of SaaS as the predominant mode of usage, evolving uses of PaaS and Cloud Computing imply a “web-interface intensive” ecosystem</p>	<p>Agile testing methodologies are iterative, focus on interfaces and we test for access across different geographies.</p> <p>Our agile methodologies imply more testing cycles thus increasing the chances of bug-discovery.</p>
<p><b>Discovering bugs vs. discovering bugs in logic</b></p> <p>A business rule, a screen, a report lend themselves to bug discovery. What is more intricate is finding out issues in the flow of information across all the application items – screens, reports, log files, ..</p>	<p>Test-MATE is business case –biased. Our testing process is intrusive and flows with the software rather than increasingly black-box driven. This also implies consistency checking between business use cases, application software and user help files / manuals.</p>
<p><b>Effect of Employee Turnover and Long Development Cycles</b></p> <p>Simply put, between long development cycles and employee turnover, one leads to the other(!) and both cause increasing regression errors.</p>	<p>The agile advantage of Test-MATE is that older test suites are almost always automated so that regression testing happens quickly and smoothly.</p>
<p><b>Requirement Volatility and Market Dynamics.</b></p> <p>The technology and business use cases are changing rapidly. The software development and testing, if they fail to embed the changes in requirements, will end up solving the “wrong” problem!</p>	<p>Test-MATE is a proven iterative, short cycle, multi-cycle and business requirement driven methodology. Each test cycle starts with the business requirements, even if the test suite is automated. The changes are taken up separately</p>
<p><b>Software Reliability</b></p> <p>This is a nightmare when you realize that software can fail or is not available when you taken into account, network issues, size of hosted machines, applications, concurrency, especially in hosted contexts.</p>	<p>Test-MATE views every software as part of the “cloud” and tests for web access with a good sample of real-life access contexts.</p>

# Outsourced Testing

## Test-MATE – the Vendor Advantage

We provide a high degree of flexibility that can be modeled into customized outsourcing solutions suited to your needs.

- A rich range of offerings that can be tailored to your organization's needs
- A flexible outsourcing model that can be customized to fit your specifics.
- Engagement models can be designed as completely onshore, completely offshore, and a variable mix of onshore and offshore
- A high degree of process maturity
- Domain experience and industry focus.
- Clear testing methodology with distinct phases and well-defined inputs and outputs
- Senior management attention and control
- A resource pool that is well trained in business analysis, industry knowledge, testing methodologies, testing tools and reporting
- Effective knowledge management processes
- Robust infrastructure and tools
- Stringent security standards

Mindlance offers cost-effective and highly scalable services to high technology companies planning to outsource their testing requirements. Most importantly, we will articulate the testing function and map it to your “wishlists”, thus saving your precious time. We have designed a robust, efficient, and well-supported environment for addressing and developing according to your requirements strictly focusing on the below mentioned key result areas:

## Test-MATE – the Vendor Advantage

We focus on in-depth engagement with the clients in at the business analysis, when planning for end customer releases, and when planning for roadmaps, to offer scalable and future-proofed services. Our “Repeatable & Capable Methodology” helps in clear understanding of testing process from business analysis to User Acceptance testing to deliver high quality and performance results.

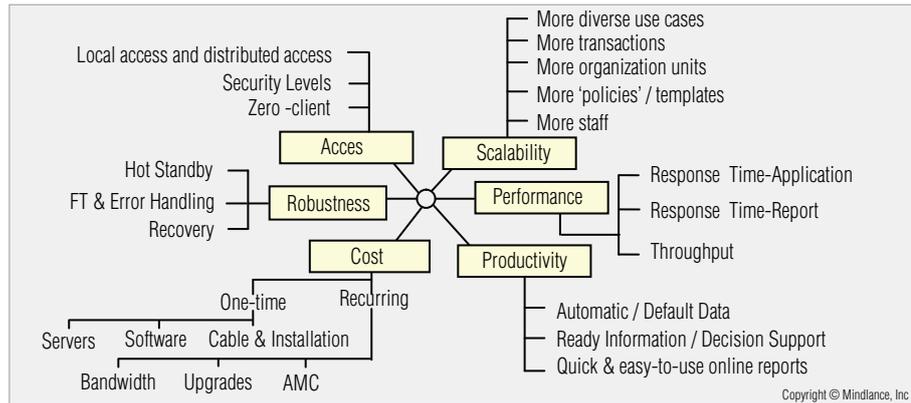
## Disciplined Testing Process

Mindlance offers a disciplined approach to independent testing process. Customer focus, repeatable processes, skilled personnel, defect prevention, non-functionality testing, root-cause analyses and quick sanitizations of software are the key enablers to our testing services. With deep functional & technical resources, we can quickly put a team together to plan, define, design, and build a solution. Starting from requirements definition and solution architecture through system testing and deployment, Mindlance assumes complete responsibility for testing and the goal is simple: **zero end-customer reported issues.**

# Outsourced Testing

## Non-functionality Attributes

We emphasize that non-functionality product quality attributes should be well-covered to deliver a complete tested application to the client. Our architecture allows for role-based, function-based, user-based, Location/Domain based layouts that are scalable across the enterprise. This enables enterprises to be innovative, efficient, and responsive by seamless access to information across the enterprise value chain. Our non-functionality attributes framework is shown below.



## Multiple Release Management

Our testing processes enable a quick multiple release approach with feature lock-in and rigorous release management – thus increasing your savings and earnings.

## Talented Professionals

Along with the resources in the Mindlance Software Center of Excellence, Mindlance offers a 'resources-on-demand' model, where Mindlance draws on its relationships with several vendors for additional resources on an as-needed basis placing onsite and offshore with flexible engagement billing models. We provide the best professionals that have a good mix of technology and business domain expertise in cost effective and timely manner. At our OPDC, every testing professional is made to think performance, scalability, optimization along with functionality at every leg of testing and escalate any conflicts / issues / improvements.

## Your own ODC

Mindlance has a very flexible Offshore Development Center. This means that when you are faced with large projects of short duration, you can use Mindlance's as ready to use resources to double your testing resources without incurring massive expenditure be it in overheads or as capital investments. The flexible resources that we use enable our clients create and implement changes at a faster and controlled rate.

# Outsourced Testing

## Key Benefits

Test-MATE Services would let you experience the following benefits:

- Reduces Total Cost of Ownership by ensuring a large part of the testing work is executed offshore with delivering on committed time, quality and low cost.
- Reduces the time to reach market with new products through our faster and highly scaleable approach.
- Business risk mitigation by being your long-term reliable partner who understands the client imperatives well with our talented resources.
- Independence in your testing activity – more free time for the management resources of our customers to focus on product architecture and go-to-market.
- Flexible ODC with minimum ramp-up time and go-to-market costs & time.

**TEST-MATE: Phenomenal Benefits to ISVs**  
**A Necessary Engagement for Riding over the Market Vagaries**  
**and**  
**Getting “Strategic Depth”**

### Early adopters are seeing

1. High degree of cost advantages
2. Shorter testing cycles
3. Faster go-to-market for all releases
4. Tighter integration and interoperability with end-user ecosystem, and
5. Enhanced ROI

### “TEST-MATE” – strengths

1. Domain knowledge
2. Strong process
3. Strong emphasis on Business Analysis understanding
4. Minimum overheads in team involvement
5. Senior management attention

For more information please visit [www.mindlance.com](http://www.mindlance.com) or mail us at [enquiry@mindlance.com](mailto:enquiry@mindlance.com)