



An Introduction to iLAB's  
**TESTING CENTER  
 OF EXCELLENCE**

**North America**  
**South America**  
**South Africa**

info.us@ilabqa.com  
 info.br@ilabqa.com  
 info.sa@ilabqa.com

+1 317-218-3258  
 +55 21 99973-9043  
 +27 11 0330200



# Testing Center of Excellence (TCoE)

Software defects can severely tarnish an organization's reputation, efficiency, and profitability. Addressing this, the Testing Center of Excellence (TCoE), especially as conceptualized by iLAB, emerges as a beacon of top-tier software quality, centralizing testing expertise, standardizing best practices, and fostering adaptability to emerging technologies.

iLAB's TCoE goes beyond a mere framework; it's both a mindset and a strategic commitment. Through our comprehensive services, we ensure:

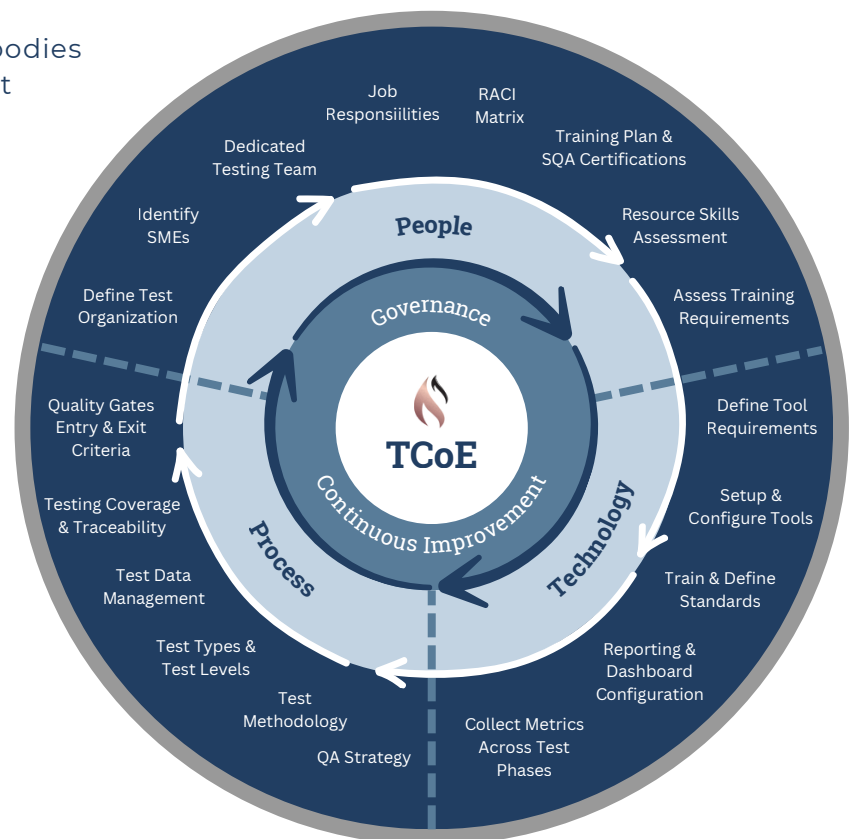
- **Adaptability:** Ensuring agility and flexibility in accommodating emergent technologies and paradigms, including API changes and updates.
- **Integration and Modularity:** Recognizing the component-based trajectory of software development and the imperative of end-to-end system connectivity.
- **Continuous Learning and Automation:** Keeping the TCoE current, efficient, and ahead of the curve.
- **Documentation and Collaboration:** Ensuring a seamless knowledge transfer, fostering cross-functional teamwork, and integrating services from varied vendors without a hitch.
- **Continuous Improvement:** We're relentless in our pursuit of excellence, always seeking feedback to refine and optimize our systems.

Our TCoE model, graphically illustrated, embodies our systematic quality assurance approach. It highlights our dedication to excellence, governance, and perpetual betterment.

Three pillars anchor our TCoE:

- **People:** Professionals drive results. We emphasize skill enhancement and collaboration.
- **Process:** Ensuring consistent, clear, and high-standard outcomes.
- **Technology:** Focused on configuration and implementation.

In essence, iLAB's TCoE isn't just a structure; it's our pledge to superior software. We equip organizations for both current demands and future challenges, navigating the path towards impeccable software solutions.



## iLAB's TCoE Vision

To develop a center that stands as a beacon of excellence, offering a standardized, yet adaptable framework of testing practices. We aim to combine innovation with integrity, ensuring that our methodologies are not only cutting-edge but also rooted in proven principles.

## Goals of TCoE

Software defects can severely tarnish an organization's reputation, efficiency, and profitability. Addressing this, the Testing Center of Excellence (TCoE), especially as conceptualized by iLAB, emerges as a beacon of top-tier software quality, centralizing testing expertise, standardizing best practices, and fostering adaptability to emerging technologies.

**Standardize Excellence:** Establish and promote SQA best practices and principles. This foundation ensures every test, from module level to API testing, adheres to a gold standard of excellence.

**Flexibility & Adaptability:** Recognizing that change is the only constant in technology, the TCoE champions adaptability. It ensures that quality assurance processes are fluid to changes in technologies from Waterfall methodology to the latest development technologies.

**Holistic Integration Approach:** In a world where software components are interconnected, our TCoE prioritizes integration readiness. We are geared to seamlessly test integrations across varied systems, including APIs, and microservices, offering a comprehensive approach to software quality.

**Modular Compatibility:** Modular Testing embodies the spirit of adaptability, responding to the dynamic nature of the technology landscape. It acts as a cornerstone for quality assurance, promoting efficient, effective, and resilient testing practices that are agile enough to navigate the ever-changing currents of the tech world.

**Continuous Learning:** Technology waits for no one. Thus, we embed a culture of ongoing learning, ensuring our experts are always equipped with the latest tools, methodologies, and exposure to nationwide human health services projects.

**Cross-Functional Collaboration:** Ensuring quality is a collective effort. Our TCoE fosters collaboration across development, operations, and business teams, ensuring a holistic perspective in testing efforts.

**Strategic & Tactical Balance:** While it's imperative to address immediate needs such as system upgrades or legislative mandates, our TCoE ensures these short-term objectives don't overshadow the broader strategic vision of Quality Assurance.

**Agile Business Response:** In a rapidly changing business environment, the ability to pivot and adapt is paramount. Our TCoE ensures agility, allowing businesses to harness quick wins while steadily marching towards strategic milestones.

Our vision and goals for the TCoE are not just about ensuring error-free software. It's about creating an environment where excellence is the norm, where adaptability meets reliability, and where businesses can confidently leverage technology to achieve their strategic objectives. Partnering with iLAB means entering a realm where testing is more than a process; it's a promise of quality.



# Challenges Overcome by TCoE

A Test Center of Excellence (TCoE) is designed to address various challenges within an organization's testing efforts by focusing on people, technology, and processes. Yet, this path is filled with intricate challenges that, if not addressed effectively, can compromise the quality of software outcomes. Here's a closer look at these potential hurdles and how iLAB navigates them with precision and expertise.

## PEOPLE

- **Skill Gap:** TCoE can provide training and mentorship programs to bridge the skill gap among testing professionals, ensuring that the team has the necessary expertise to conduct thorough testing.
- **Lack of Expertise:** TCoE can attract and retain experienced testing professionals who can contribute their knowledge to create and implement best practices.
- **Communication Issues:** TCoE fosters better communication and collaboration among testing teams, developers, and other stakeholders, reducing misunderstandings and improving overall efficiency.
- **Resource Allocation:** By centralizing testing resources, TCoE helps ensure that testing efforts are appropriately staffed and allocated to projects based on priority and need.
- **Cultural Shift:** TCoE can promote a culture of quality and a process-driven approach to testing, encouraging teams to adopt standardized testing practices and methodologies.

## PROCESS

- **Testing Standardization:** TCoE enforces standardized testing processes and methodologies across projects, eliminating inconsistencies and reducing the likelihood of errors.
- **Process Efficiency:** TCoE identifies and eliminates bottlenecks, redundant tasks, and inefficient practices, leading to more streamlined and efficient testing processes.
- **Continuous Improvement:** TCoE promotes a culture of continuous improvement by conducting regular process assessments and implementing enhancements based on lessons learned.
- **Risk Management:** TCoE can help identify and mitigate testing-related risks early in the project lifecycle, reducing the chances of costly defects reaching production.
- **Consistent Documentation:** TCoE ensures that testing documentation and reporting are consistent and comprehensive, making it easier for stakeholders to understand the testing status and results.
- **Scalability:** TCoE can provide guidelines and processes for scaling testing efforts up or down based on project needs, ensuring flexibility and adaptability.

## TECHNOLOGY

- **Tool Selection and Integration:** TCoE assists in selecting the right testing tools and ensuring their seamless integration into the testing process, reducing the challenges associated with tool compatibility and functionality.
- **Tool Licensing Costs:** TCoE can help manage tool licenses efficiently, reducing costs by centralizing tool procurement and usage across projects.
- **Automation Adoption:** TCoE can promote and facilitate test automation efforts, helping teams transition from manual to automated testing where appropriate, which leads to faster and more reliable testing.
- **Test Environment Management:** TCoE can establish processes for effective test environment provisioning, ensuring that testing teams have access to the necessary infrastructure without delays.





# iLAB's Expertise in TCoE Implementation

In the landscape of software quality assurance, iLAB stands out, not merely as a provider but as a strategic partner. With our deep-rooted expertise in TCoE implementation, we offer organizations a streamlined pathway to excellence, ensuring software doesn't just meet standards but sets them.

With iLAB spearheading your TCoE implementation, you're not just adopting a process; you're embracing a philosophy of excellence. Our commitment is to ensure your software not only functions optimally but thrives in an ecosystem of continuous improvement and adaptation.

## Holistic TCoE: API Testing Excellence

Incorporating API testing is paramount in iLAB's TCoE implementation strategy. Understanding the pivotal role of APIs in modern software interactions, we have honed our methodologies to validate API functionality, performance, and security comprehensively. This dedication ensures our clients' software ecosystems aren't just robust but seamlessly interconnected, delivering an unmatched user experience.

## Why Choose iLAB?

### Efficient Setup:

iLAB efficiently implements the TCoE, ensuring minimal disruption to your ongoing operations and maximizing the value of your time.

### Proven Results:

With countless successful TCoE implementations, our experience isn't just claimed—it's demonstrated.

### Immediate Best Practices:

From the outset, you'll have access to the industry's best practices, positioning you ahead, not just at the starting line.

### Customized Resources:

Recognizing the distinctiveness of each organization, iLAB provides QA and testing resources precisely molded to your unique requirements.

### Continuous Improvement:

Beyond initial setup, our commitment is towards fostering a culture of constant refinement, enhancing collaboration and efficiency across teams.

### Adaptive Quality Assurance:

In the ever-changing software landscape, our QA methods are flexible, ensuring they evolve in tandem with the dynamic needs of businesses and users.

### Unified Approach:

Our blend of both strategic and operational strategies ensures a transformation journey that's structured yet adaptable.

### Test Automation Prowess:

Championing the cause of test automation, we employ methodologies that maintain your testing environment's agility, enabling it to overcome new challenges effortlessly.

### Comprehensive Documentation:

Knowledge retention is key. We ensure every test, outcome, and insight is meticulously documented, promoting knowledge-sharing and cooperative growth.

### Collaborative Excellence:

Emphasizing synergy, we seamlessly integrate with not just your internal teams but also external partners, aiming for a harmonious blend of expertise and functionality.



# iLAB's Tactical Objectives

In the realm of software testing, strategy without execution is but a dream. At iLAB, while we pride ourselves on building a robust strategic foundation for TCoE, we equally emphasize the granular, hands-on tactical activities that breathe life into the strategy. These tactical undertakings translate our strategic vision into concrete results, ensuring the quality of the software delivered.

- **Swift Response to Immediate Needs:** Beyond our long-term vision, iLAB is agile in addressing the immediate tactical requirements of businesses, whether it's operational deadlines or imminent system releases.
- **Collaborative Engagement:** By forging close collaborations with businesses, we ensure a clear understanding of both strategic goals and immediate operational needs. This synchronization allows us to align our tactical efforts seamlessly.
- **Comprehensive Test Activities:**
  - **Test Case Development:** We meticulously design test cases to ensure they capture all the requirements and user scenarios, ensuring a comprehensive testing framework.
  - **Test Execution:** Tests are executed diligently, leveraging the latest tools and methodologies, to ensure that software meets the defined criteria for quality and performance.
  - **Defect Management:** Any discovered defects are logged, tracked, and managed until resolution, ensuring that no issue goes unnoticed or unresolved.
  - **Enhancing Test Coverage:** Recognizing the dynamic nature of software, we continuously work on enhancing our test coverage, ensuring that every aspect of the software is evaluated. This extends to API coverage, where we systematically test various API endpoints and scenarios to guarantee robust integration.
- **Transformation Roadmap:** We introduce a clearly articulated Transformation Roadmap that outlines the various phases an organization will traverse during a TCoE implementation under iLAB's guidance. This roadmap serves as a navigational tool, offering clarity and direction.
- **Promoting Cross-Functional Collaboration:** Testing doesn't operate in isolation. We devise strategies to foster collaboration between the TCoE, development, operations, and business teams. This holistic engagement ensures that the testing efforts are aligned with the broader business goals.
- **Feedback & Continuous Improvement:** Implementing mechanisms for monitoring and feedback loops is key. These systems allow us to track the performance of the software in real-world scenarios, garnering insights that fuel our commitment to continuous improvement.
- **Vendor and Partner Integration:** In today's multifaceted software environment, organizations often engage with multiple vendors and partners. iLAB ensures that this multiplicity doesn't lead to complexity. We integrate vendor and partner services seamlessly into your testing processes, ensuring consistency in quality assurance efforts.



# TCoE Implementation Phased Approach

At iLAB, we tailor each TCoE to align seamlessly with business needs. Recognizing the complexities and nuances each business presents, we advocate for a structured, phased approach to maximize TCoE benefits.

## Phase One

Phase one centers on laying the groundwork for the Testing Center of Excellence (TCoE). During this phase, iLAB closely collaborates with stakeholders to identify their specific testing and quality goals. We also dive deep into the current testing landscape of the organization, reviewing the systems in place, existing testing methods, and environment configurations. By understanding how requirements are managed, the present test automation strategies, and examining the prevailing tools and methodologies, iLAB formulates a clear benchmark using the iTEST© Methodology.

TCoE Implementation

### Phase One

#### PROCESS

- Review the current testing structure and methods, including API testing approaches.
  - Examine how requirements are managed and tested.
  - Look at current automation plans from vendors and stakeholders.
- Check test environment settings.
- Identify which business units need testing and how they get it.
- Review how test data is currently managed.
- Check current test automation strategies from vendors.
- Analyze current testing tools and methods.
- Set benchmarks using iTEST© Methodology.

#### PEOPLE

- Identify testing and quality goals from stakeholders.
- Understand the scope of current systems and projects.
- Work with stakeholders to create the Deliverable Expectation Document (DED).

#### TECHNOLOGY

- Review current test environments and tools.



## Phase Two

Phase two builds upon the insights gathered in the first phase. iLAB starts by defining a structured Software Quality Assurance (SQA) team, outlining their roles and tasks to ensure optimal performance. We then devise advanced testing methods, construct a comprehensive testing quality framework, and institute standards for defect and test case management. Emphasis is also placed on aligning with industry best practices and establishing a roadmap for TCoE deployment. Furthermore, technology recommendations are made, ensuring the organization is equipped with the best tools and a conducive testing environment.

TCoE Implementation

### Phase Two

#### PROCESS

- Design new testing methods, including API testing.
- Create a testing quality framework, including automation.
  - Factor in business goals, current tech, team skills, available tools, and development methods.
  - Make rules for managing defects and test cases, and for automation.
- Plan for ongoing improvement.
- Make sure to follow SQA industry standards.
- Share the TCoE plans with leaders for feedback.
- Make a step-by-step TCoE rollout plan.
- Plan how the TCoE rollout will be managed.
- Make the Requirements Traceability Matrix (RTM) for the rollout.

#### PEOPLE

- Set up the SQA team, defining roles and tasks.
- Review skills of current testing team members.
- Decide the balance between SQA staff and testers.
- Create the RACI matrix for team roles and interactions.

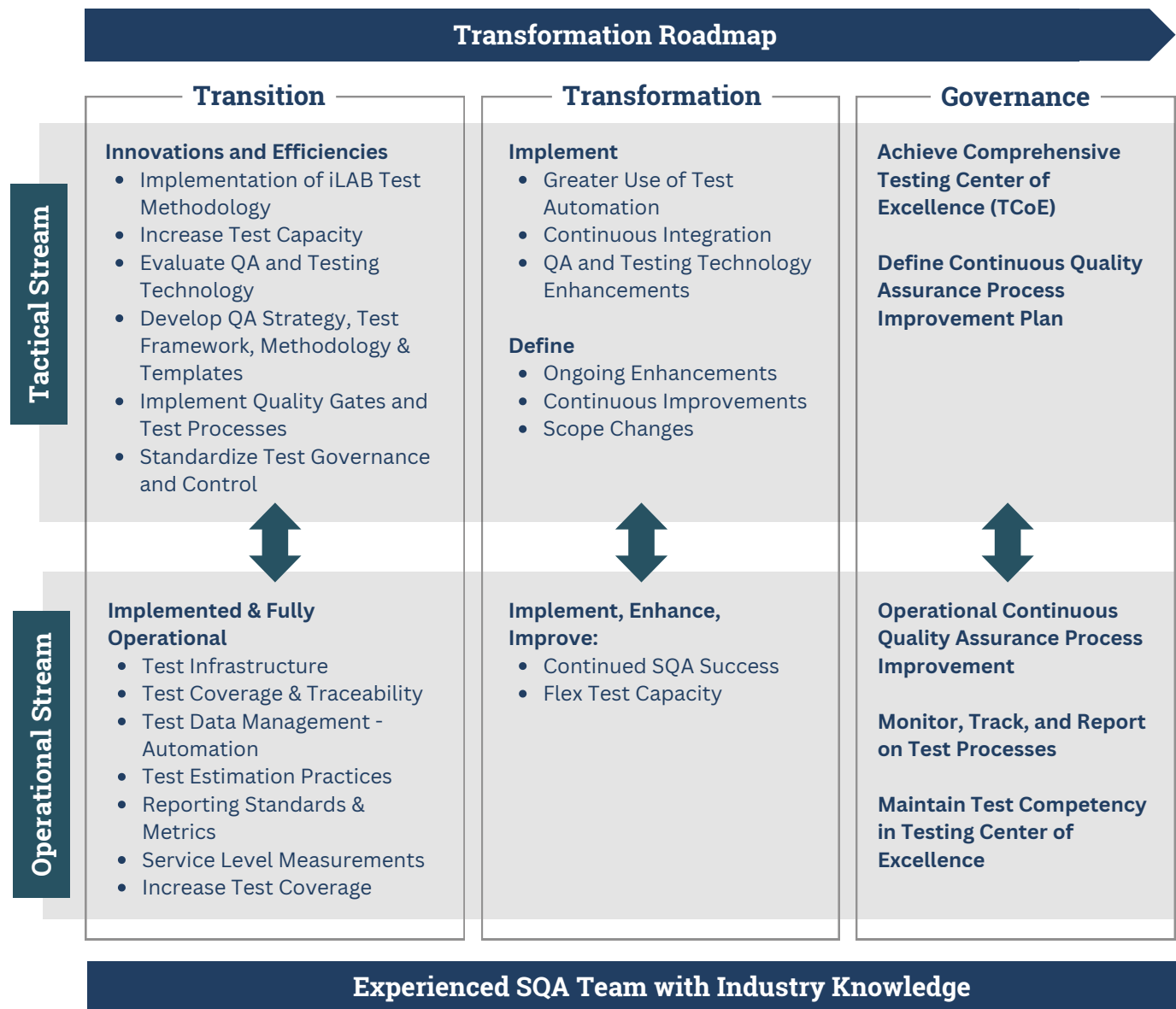
#### TECHNOLOGY

- Suggest tools and technologies to use.
- Recommend settings for testing environments.



# Transformation Roadmap

Embarking on a TCoE journey demands a balance between immediate tactical needs and long-term strategic improvements. Partnering with an expert SQA and testing firm like iLAB allows organizations to efficiently address challenges, deploy skilled professionals, and see quicker results. While business dynamics may necessitate rapid actions, such as system upgrades or legislative mandates, the overarching goal is to evolve Quality Assurance practices. iLAB champions a unified approach, blending both strategic and operational facets, ensuring agility and comprehensive validation of software functionality. The accompanying Transformation Roadmap illustrates the phased approach iLAB adopts in steering your TCoE journey.





# The Power of Partnership with iLAB

The importance of reliable software testing cannot be overstated. As organizations grapple with the pressures of delivering high-quality software products consistently, partnering with a seasoned player becomes imperative. iLAB, with its profound experience and commitment to excellence, offers immediate and long-term benefits that streamline the Testing Center of Excellence (TCoE) journey. From rapid deployment to adopting cutting-edge practices, and from ensuring business continuity to promoting team collaboration, iLAB ensures organizations remain ahead of the curve.

## Long-Term Benefits of iLAB's TCoE

- **Risk Reduction:** iLAB's rigorous testing approach helps minimize the risks associated with system failures, budget overruns, and negative publicity.
- **Adoption of Modern Practices:** Organizations yet to update their software practices benefit from our expertise, avoiding prolonged delays and reducing failed deployments.
- **Efficient M&O:** TCoE's impact extends to Maintenance & Operations. With possible changes and updates in the horizon, our approach ensures your systems are always prepared.
- **Ongoing Testing:** Systems evolve, and so do testing needs. iLAB ensures continuous and efficient testing during all system phases.
- **Cost Effectiveness:** Proper testing at the initial stages can lead to long-term cost savings.
- **Benefits of Early QA:** Early quality assurance adoption with iLAB can lead to time savings, better accountability, and protection of investments.
- **Integration with Modern Technologies:** With our assistance, your TCoE will be ready to integrate with contemporary technologies like DevOps, Agile, and cloud-native development.
- **Emphasis on Automation:** We focus on test automation, creating reusable scripts, and maintaining comprehensive documentation, making the TCoE process efficient.
- **Promotion of Team Collaboration:** iLAB's approach encourages collaboration across different teams, continuous improvement, and feedback, ensuring software aligns with evolving business needs.

## Immediate Advantages

- **Fast TCoE Deployment:** With iLAB, organizations can expect quicker implementation of TCoE, leading to a faster return on investment. iLAB's TCoE framework is designed to adapt and remain relevant in the evolving digital landscape, including the changing API landscape.
- **Business Continuity:** Our approach ensures your daily operations continue uninterrupted during the TCoE setup.
- **Immediate Best Practices:** iLAB's experience ensures the application of high-quality standards from the start.
- **Leveraging iLAB's Experience:** Benefit from improved quality assurance due to iLAB's extensive industry knowledge.
- **Access to Qualified Professionals:** Get support from skilled quality assurance and testing experts to help meet your organization's goals.
- **Future-Ready TCoE:** iLAB's TCoE framework is built to adapt and stay relevant in the evolving digital landscape.





iLAB is your partner for comprehensive software quality assurance, testing, and support services.

98% decrease in defects experienced by iLAB's government agency clients

With 25 years of experience, iLAB provides comprehensive software quality assurance and testing services to help organizations reduce risk and safeguard data. Our team of experts is dedicated to improving quality, reducing risk, ensuring timeliness to market, and providing delivery at an optimized cost. For iLAB, software testing is neither an afterthought nor an add-on service. It is our core business.

iLAB provides comprehensive software quality assurance and testing services, utilizing our team of experts, our proprietary iTEST© methodology, and the best technology available from our global partnerships. We are dedicated to improving quality, reducing risk, ensuring timeliness to market, and providing delivery at an optimized cost using our people, process, and technology.

### iLAB's Contract Vehicles

**GSA IT Schedule 70**  
Contract No: GS-35F-323GA  
SIN: 132-51 - IT Professional Services

**State of Georgia**  
Subcontractor to Computer Aid Inc.  
IT Temporary Staffing Services

**NASA SEWP Carahsoft Technology Corp.**  
Contract No:  
Group A Other Than Small: NNG15SC03B  
Group D Other Than Small: NNG15SC27B

**NASPO Value Point Carahsoft Technology Corp.**  
Contract No: AR2472

**OMNIA Carahsoft Technology Corp.**  
Contract No: R191902

**NCPA Carahsoft Technology Corp.**  
Contract No: NCPA001-86

### Past Performance

- Department of Health
- Department of Corrections
- Department of Education
- Retirement Systems and Pension Funds
- Department. of Homeland Security
- Department of Motor Vehicles
- Secretary of State
- Department of Family and Social Services



**Company Info**  
DUNS: 962174012  
NAICS Code: 541511  
UEI: KALNLAV7A4J4

### Service Lines

- Quality Assurance
- Software Testing
- Workforce Solutions
- Training & Development
- Testing Optimization

### Engagement Models

- Project-Based Delivery
- Staff Augmentation
- Strategic Consulting
- Managed Solutions
- Hybrid Models

1000+

1000+ projects successfully tested since iLAB was founded in 1998

220+

220+ defects daily found by iLAB testing teams for clients.

2500+

Over 2,500 manual test cases executed daily across all projects.

2500+

Over 9,000 automated test cases executed daily across all projects.

3000+

Over 3,000+ completed engaged.

### iLAB's Areas of Expertise

- Project Management
- Software Evaluation
- Project Consulting
- Automation Testing
- Security Testing
- Performance Testing
- Functional Testing
- System Testing
- Mobile Test Lab
- End to End Testing
- Unstructured Supplementary Service Data (USSD) Testing
- Hardware/ IOT Testing
- Risk Based Testing
- Integration Testing
- Regression Testing
- Usability
- iLAB SAP Success Factor Tool
- Training
- API Testing
- Data Masking
- User Acceptance Training
- Quality Assurance Software Implementation



North America  
South America  
South Africa

info.us@ilabqa.com  
info.br@ilabqa.com  
info.sa@ilabqa.com

+1 317-218-3258  
+55 21 99973-9043  
+27 11 0330200

For more information:  
ilabquality.com

