



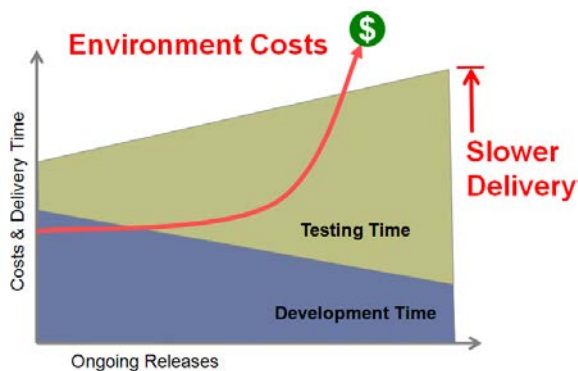
iTKO's LISA Product Suite

Removing Constraints and Risks from Cloud Application Development

iTKO's LISA™ software was created specifically to overcome the root cause challenges of Cloud Application quality, and provides a comprehensive solution for virtualizing, testing, and validating applications that leverage SOA, BPM, cloud computing, integration suites, and ESBs. LISA is an integrated product suite that provides quality coverage from development to delivery while eliminating costs, constraints and risks throughout the software lifecycle.

The Challenge: Mitigating the Cost and Risk of Modern Cloud Applications

IT organizations have changed their approach to enterprise applications from large and monolithic implementations, to ones that are more dynamic, distributed, and heterogeneous in nature. This shift toward more complex and changing distributed applications, along with the popularity of agile development techniques, has exposed serious inadequacies with traditional software development and quality approaches. These traditional methods, based on tools and techniques originally designed for packaged applications and client/server environments, are simply inadequate for the needs of modern applications.



The unintended consequences of increased complexity and change

Some of the key challenges to address include:

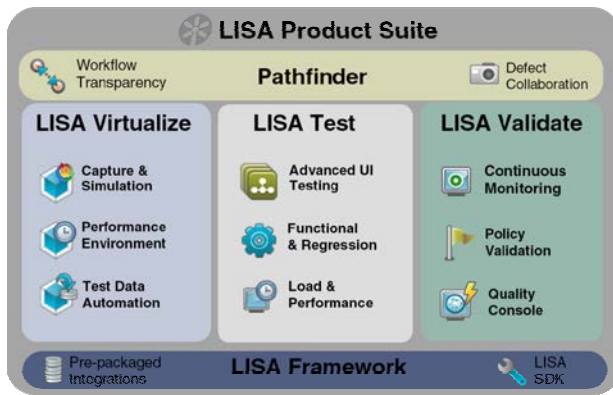
- Unavailability of dependent systems during the software development lifecycle, resulting in missed release deadlines, wasted resources, and an inability to deliver needed functionality.
- Lack of transparency across heterogeneous technologies and application tiers to effectively trace defects to their source and resolve them.
- Costly and time-consuming management of volatile test data needed to work with distributed services and sensitive systems of record.
- Software failures in production due to insufficient performance lab automation and error-prone manual regressions.
- Limited availability of test lab environments due to high costs and lengthy setup and configuration.
- Lack of control over, and per-use access costs of third-party systems owned by other groups, such as mainframes, SaaS and Cloud resources
- Poor collaboration across teams that have become more decentralized and distributed.

“Software organizations are struggling to keep up with the pace of change and increasingly complex modern applications.”

Source: Thomas Murphy, Gartner, 2009

Solution: LISA Delivers Quality & Agility in Complex, Rapidly Changing Environments

iTKO's LISA helps customers optimize their software lifecycle for lower quality assurance costs, shorter release cycles, reduced risks, and the elimination of critical development and delivery constraints. The LISA product suite includes the following:

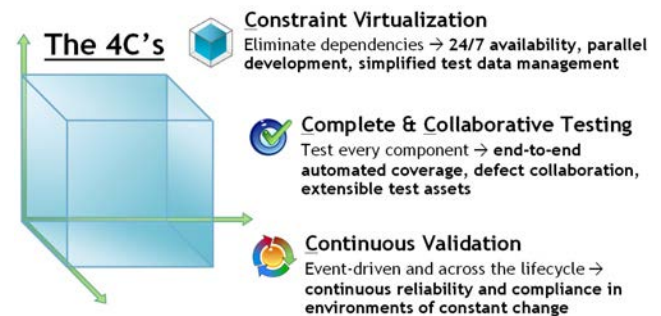


The 4 C's Approach to Optimize the Application Lifecycle

When complex, modern application initiatives are conducted without appropriate virtualization and quality practices in place, every new technology added or interdependent component changed can introduce multiple potential points of failure.

LISA optimizes application development for these complex, changing application environments, not just for individual departments or roles, but across the larger application lifecycle. This best practices approach is described in what we call the "4 C's" for modern application quality and agility.

- **LISA Virtualize:** Eliminates dependency constraints caused by unavailable or inaccessible systems by simulating their dynamic behavior, data and performance. The resulting virtual models can be made available 24/7 for development and testing purposes to accelerate time-to-market, streamline test data management, and lower infrastructure costs.
- **LISA Test:** An automated end-to-end testing solution that directly verifies heterogeneous technologies across all application tiers in a "no-code" environment. LISA automates unit, functional, regression, system integration, load and performance testing to provide teams with end-to-end, automated test coverage for improved quality and greater efficiency.
- **LISA Validate:** Prevents the unintended consequences of change by validating functional and business outcomes across processes and underlying components, either continuously or based on change events in the lifecycle. Lowers risk and builds trust across distributed systems and teams, and works in conjunction with governance and policy infrastructures.
- **LISA Pathfinder:** Provides complete transparency and traceability across all application tiers to quickly identify root cause defects, streamline defect collaboration between Development and QA, and automatically generate detailed regression test suites that reduce reliance on manual testing efforts in the future.



LISA eliminates development and testing constraints, facilitating shared responsibility earlier in the software lifecycle and across key stakeholders including Development, QA, Business Analysts, and others.

This can be realized with *complete*, automated test coverage and full traceability and transparency to enable rapid defect discovery and efficient *collaboration* to resolve issues. Business risks can be reduced by *continuously* validating outcomes at change-events across the lifecycle. Virtual service environments that are easily customized can be leveraged freely across teams to remove delays and *constraints* on dependent systems, so that enterprise applications can achieve the agility needed to respond to changing business needs.

Innovative Capabilities and Strategic Benefits that Deliver Rapid ROI

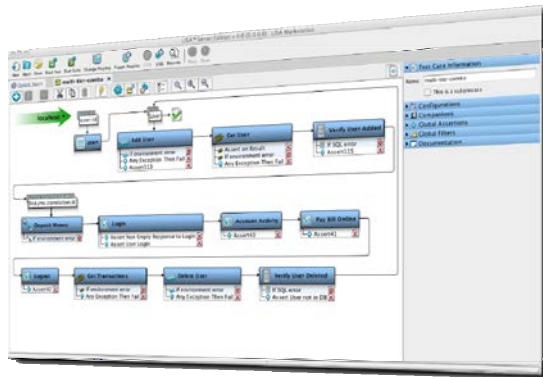
LISA provides key capabilities and benefits that can be applied across the entire lifecycle, or focused on the immediate needs of a particular project or initiative:

“Considering its vast range of functionality, LISA seems to be ideal when searching for an overall solution.”

Source: Top 5 U.S. Property and Casualty Insurer

Accelerate Parallel Development: Shorten release cycles and reduce contention for shared resources by rapidly virtualizing the dynamic behavior, data and performance of nearly any dependent IT system, including mainframes and remote third-party systems.

Automate Test Data Management: Avoid manual data preparation by capturing realistic data scenarios from live traffic and automatically desensitizing and adjusting data with time and situational awareness for significant time and cost reductions.



LISA Virtualize's drag-and-drop virtual model editor

Transparency and Traceability: Eliminate manual detective work and rapidly trace defects to their source, providing complete visibility across end-to-end transactions and "between the boxes".

Streamline Defect Collaboration: One-click to capture defects with complete developer context to ensure defect reproducibility the first time, without requiring Dev or QA to learn new technical skills or processes.



Pathfinder's web-based console provides complete visibility

More Effective Performance Labs: identify and resolve performance problems earlier by performance testing individual components with virtual environments that isolate and tune them prior to system assembly, at much lower cost.



LISA's interactive dashboard captures live performance and load metrics

Continuous End-to-End Automation: LISA's codeless, model-driven environment connects to a powerful server-side orchestration and automation engine that easily integrates into build processes and other event-based needs.

Test Earlier and More Often: Avoid late testing and waiting for completed UIs by testing "headless" services early and addressing dependent system availability gaps using virtualization.

"Getting started sooner in quality efforts drives down the cost of defects and improves the ability to deliver on time."

Source: Gartner, 2009

Lower Maintenance and Infrastructure Costs: Replace ineffective stubs/mockups, costly test labs, and physical test environments with inexpensive, software-based, easily customized virtual service environments.

Deep Native Coverage and Extensibility: LISA natively virtualizes and tests most commonly used software development platforms and integration technologies, and a robust extensibility kit offers faster coverage for custom and proprietary apps.

Advanced UI Testing: Minimize or eliminate manual testing through dynamic UIs and interactive presentation layer technologies such as AJAX, Flash, Flex, Silverlight, and others.

Mitigate Risks with Continuous Validation:

Perform automated, event-based validation of functional and business outcomes to ensure delivery of required service levels, policy enforcement, and improved trust and collaboration between federated teams.



LISA's Continuous Validation dashboard provides granular monitoring at the service level

LISA addresses a critical marketplace need for solutions to dramatically lower the cost and risk of delivering highly complex, rapidly changing enterprise applications. By successfully addressing these needs, LISA enables modern applications to deliver on their original promise of agility and cost savings.

LISA Product Specifications



Technologies Supported:

Presentation Layer: Adobe Flash/Flex, AJAX, AWT, DOM, Java Swing, Javascript, Oracle ADF, Microsoft ActiveX (Silverlight), RESTful applications, XML, standard Web/HTTP protocols, others.

Middleware: IBM WebSphere, Oracle Fusion, .NET/IIS, SAP PI/XI, JBoss, WebLogic, TIBCO, SoftwareAG/webMethods, MQ Series, iPlanet, Apache, Progress Sonic, Sun JMS/JCAPS, any J2EE Container, any Web Server.

Databases: Oracle, DB2, SQL Server, MySQL, Informix, other JDBC supporting databases.

LISA Platform Support: LISA is Java-based and runs on any JEE/current JDK-compliant platform (Windows, Mac OSX, Linux, Unix, Solaris, others).

Third-Party Products: LISA integrates with HP Quality Center and Performance Center, IBM Rational Quality Manager, SOA Governance platforms (Reg/Rep, UDDI Type 2, 3), System Monitoring (Hawk, OpenView, Tivoli), ALM products, and others. LISA has a native Eclipse IDE plug-in. LISA XML test case/test run attachments can be used with issue/requirements tracking, source code management, test management, and groupware products.

About iTKO

iTKO helps customers move enterprise applications into the Cloud at lower cost and risk. Our LISA™ virtualization and validation product suite optimizes complex applications throughout the software lifecycle, eliminating costly constraints and defects, while improving agility and performance in an environment of constant change. iTKO's LISA Virtualize, Test, Validate and Pathfinder solutions eliminate dependencies and increase the reliability of distributed, modern applications that leverage cloud computing, SOA, BPM, integration suites, and ESBs.

iTKO customers include industry leaders such as eBay, American Airlines, Time Warner, KPN, Level3, Bank of America and government agencies including the FAA and U.S. Department of Defense.

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