

Comprehensive Testing Services for Life Insurance Systems



Capgemini's testing services provide the framework and tools to drive significant improvements in quality and efficiency throughout the insurance lifecycle.

To support the growing number of complex applications running the business, life insurers require robust testing capabilities. But as core systems become increasingly interdependent, mobile and flexible, more time is needed to test. Yet life insurers are also facing market pressures that compress time to market, increasing pressure to shrink development and testing timeframes.

The end result? Test managers have less time to plan and execute test programs to meet business needs.

Capgemini provides end-to-end services to support testing for life insurance applications. Our testing specialists have experience testing life insurance systems to help insurers gain predictability and reduce costs without sacrificing quality.

Capgemini's Testing Services are Designed to Address Life Insurance Challenges

Today, all insurers count on IT systems to run the business. From underwriting to policy administration to billing, core applications drive the workflow and can make the difference between gaining new customers or losing market share. Customers are demanding more flexibility, mobility and transparency from their insurers who in turn are struggling to transform front and back office operations to meet consumer expectations and increased regulations. Testing is a critical part of this transformational landscape.

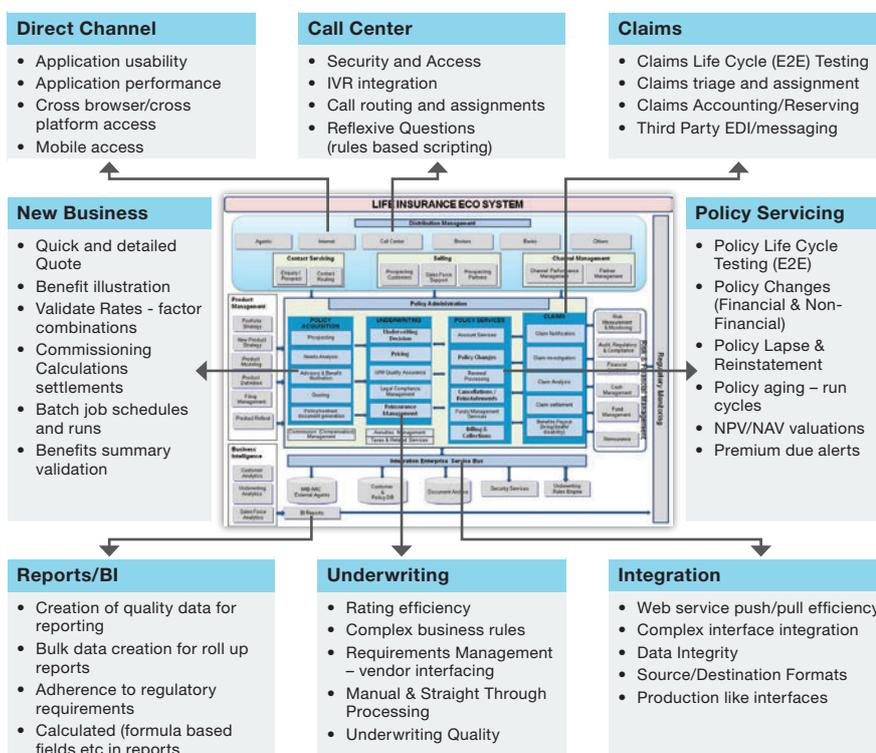
Mature testing programs provide validation that software and applications perform as designed, are rolled-out quickly, and mitigate the risk of business disruption during and after deployment.

Capgemini has one of the largest global testing practices in the world with 9,500 test professionals including over 3,500 focused exclusively on testing insurance and financial services systems and applications. With almost 20 years of experience delivering testing services using a global delivery model, Capgemini has a large library of proven tools, accelerators and methodologies to support testing engagements. Our insurance test specialists have experience working with many common life insurance applications and customized solutions and can provide guidance to streamline and accelerate your testing efforts.

Our testing offerings tailored for life insurance companies include:

- **Quality Blueprint™** provides an assessment approach and tools to assess your current testing organization to create a roadmap to a higher level of test maturity and effectiveness.
- **Test Automation** creates a foundation to test efficiently and effectively through automation. Capgemini has developed an extensive library of scripts and models to test life insurance applications.
- **Test Center of Excellence** provides a model to leverage the experience and knowledge of Capgemini's testing organization to lower risk, increase performance, and reduce testing costs.
- **User Acceptance Testing as a Service** shifts work from your subject matter experts and business stakeholders by using dedicated Capgemini test professionals with life insurance business expertise.

Critical areas for testing life insurance applications



Quality Blueprint™: Plan Your Path to Higher Test Maturity in 6 Weeks

Delivered by experienced Capgemini test consultants, Quality Blueprint helps insurers move to a higher level of test maturity in an accelerated and structured way. We work with you to build an actionable roadmap with recommendations based on industry best practices, peer benchmarking, and award winning quality frameworks. Quality Blueprint helps you understand how your testing organization measures up against current industry benchmarks calculated based on data from previous test assessments for global insurers plus survey data from Capgemini's annual *World Quality Report*.

Typically a Quality Blueprint assessment requires four to six weeks and is based on our proven Test Process Improvement (TPI Next®) framework. Quality Blueprint provides the tools to help you:

- **Assess your company's testing maturity** based on your own processes, capabilities and performance.
- **Benchmark testing maturity against life insurance industry peers** to gain a view of where you stand compared to the competition.
- **Identify key challenges in your test organization** and understand how other insurers are addressing similar issues.
- **Define a clear, controllable improvement roadmap** and target key focus areas for implementation.
- **Leverage Capgemini's insurance domain specific accelerators and industry best practices** for a quick start in making productivity improvements that result in tangible efficiency and cost savings.
- **Reap initial benefits from quality process transformation** in less than four weeks through actionable plans prioritized based on effort and value.

After optimizing quality assurance processes, **Capgemini clients have achieved post production defect leakages of less than 2% and cost savings starting at 15% and as high as 50% for managed or automated testing services.** Our business-driven approach to improving your testing process provides several benefits for insurers:

Assess. Understand. Improve

Our Test Process Improvement and Quality Blueprint service provides a detailed assessment of your current testing process maturity and a defined road to improvement.

With a clear understanding of your current state and a plan for improvement, Capgemini assists in implementing the steps that drive greater consistency in quality, more effective control over test execution, and improved cost savings.

This process of improvement is not a one-off solution but an iterative, repeatable approach, enabling true testing performance optimization.

Establishing the sound foundation for short and long term improvements, using TPI Next® and Quality Blueprint will ensure that your applications and services operate to their full potential.

- Gain greater insight into your current testing efforts.
- Create a customized roadmap to help optimize, structure, and refine testing.
- Align test processes with your key business drivers. 80% of users report that TPI Next® generates strong ROI and improves quality and agility in line with business goals.
- Increase productivity and reduce time-to-market through automation and repeatable processes.
- Access insurance industry best-practices and experience, providing the tools and skills to accelerate your test strategy and implementation.
- Minimize risk by using proven frameworks that support regulatory compliance specific to insurance across the globe.

Test Automation: Accelerate Your Testing Efforts

According to the World Quality Report 2012, test automation is one of the least mature areas in testing for financial services and insurance firms. Some common insurance carrier questions include:

- How can you ensure complete test coverage across multiple applications or versions?
- How can you lower testing costs?
- How can you speed up testing cycles?

Automation testing answers each of these problems and can help save 30-40% over manual testing efforts.

Addressing Increasingly Complex Testing Needs

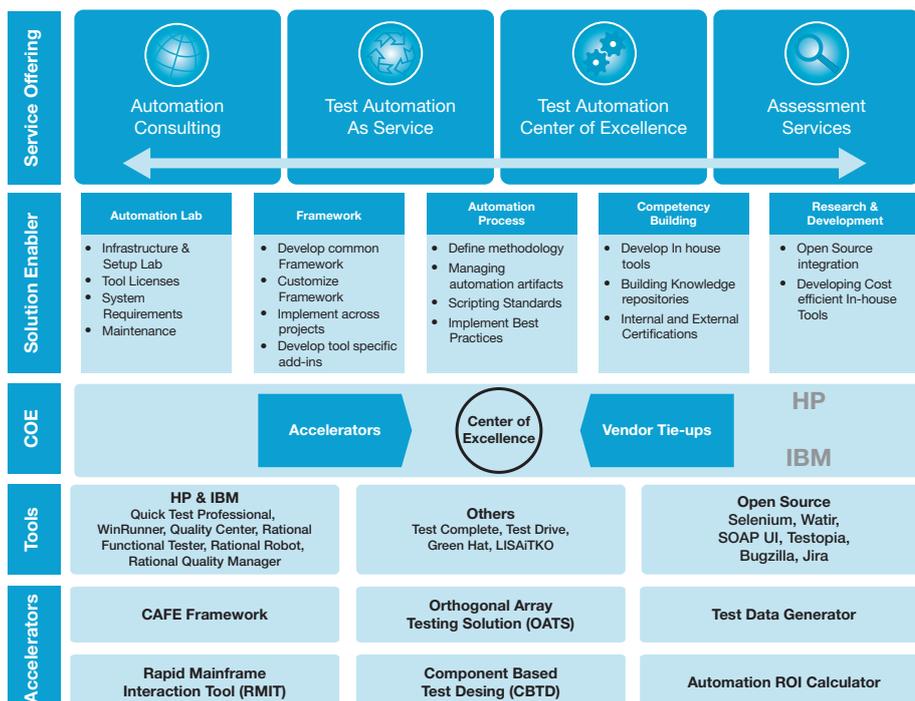
As life insurance systems and applications become more complex, testing of these applications also becomes more difficult and time consuming. At the same time, insurers require flexible and agile systems to respond quickly to market demands. Insurers must also accelerate testing efforts without sacrificing quality.

Test automation helps insurers achieve higher productivity, reduce testing cycle time, increase predictability, improve quality and lower costs. More importantly, automation helps simplify testing across multiple environments, devices or social networking channels.

Automation testing can help life insurers test:

- Complex business flows and highly integrated systems.
- Multiple technologies including mobile, cloud and social.
- Systems with significant changes or transformation.
- Systems with complex data including rate validation, quotes, new business rules, and underwriting rules.

Capgemini's Test Automation Service Offering



Every company has uniquely complex systems that drive the business, therefore there can never be a *one size fits all* approach for test automation. That's why our test automation experts have developed reusable automation frameworks for insurance that can be adapted to your unique requirements. Our tools include repositories of automation assets for common insurance business processes which can help jump start automation efforts.

Capgemini has extensive experience in providing advisory and assessment services to help you decide how to best implement automation. We look at the extent of automation in your current test organization and help you identify and improve automation activities.

Test Center of Excellence: Share the Risk with a Trusted Partner

The Test Center of Excellence offers a complete test solution that combines industrialization, innovation, intellectual property, industry expertise and scale to lower costs.

Capgemini offers life insurers the opportunity to address major testing and quality assurance challenges through our Test Center of Excellence (TCOE) offering. A TCOE is an enterprise wide, fully customized service in which Capgemini takes responsibility for test activities from start to finish. A collaborative approach to sourcing testing and quality assurance services, TCOE is the right solution for life insurers who want to quickly transform the testing function by transferring day-to-day responsibilities without losing overall control.

A TCOE offers an optimal model to standardize testing practices, methodologies and metrics across the testing organization. Capgemini's *World Quality Report 2012-2013* showed that while quality assurance organizations at insurance and financial services companies continue to mature, an increasing number are leveraging a TCOE model to act as a consolidated testing hub across the company. Key objectives of a Test Center of Excellence include:

- Reduce labor efforts and associated costs through industrialization and reuse.
- Decrease cycle time and improve time to market through test automation and innovation techniques.
- Improve the current level of quality through process improvements, standardization and risk-based testing approach.
- Increase transparency through metrics and key performance indicators (KPIs).

The components of our TCOE solution offering include:

- **TMap Next®**, our business-driven, risk-based approach for structured and industrialized software testing.
- **State-of-the-art industrialization** combines business-driven test management processes with test automation frameworks, tools, and test workbench solutions.
- **Innovation Labs** in North America, India and Europe where we invest in business-focused research, explore emerging technologies, and develop specialized tools and reusable accelerators.
- A **dedicated and stable team** that is assigned to your engagement to maintain and reuse the unique knowledge we gain. Our team can be scaled on demand to bring you expertise across specialized skills.
- **Business-driven vertical expertise** with proven experience creating TCOEs for global life insurers.
- **Rightshore® global delivery model** that ensures onshore, offshore and near shore test centers use the same high quality and efficient test processes and methodologies.

Outcomes & Benefits

Our clients have achieved the following benefits from a TCOE:

- Cost savings of at least 25% in year one from an optimal balance of onshore, offshore and near shore.
- Up to 30% reduction in overall test efforts through standardization of test processes.
- Measurable improvement in quality with detection rates of 97% or more.
- Improved time-to-market by 15% through more mature testing processes and procedures.

User Acceptance Testing as a Service: Life Insurance Expertise When You Need it Most

User acceptance testing is a key part of the testing lifecycle. But while most insurers recognize the importance of UAT, users and subject matter experts often juggle their normal job priorities during testing and send informal emails about problems that are found. The World Quality Report 2012 notes:

- 16% of financial services and insurance organizations outsource UAT.
- UAT is considered specialized testing, requiring business knowledge.
- The majority of UAT is performed by subject matter experts who spend on average <4 hours a day testing during the UAT phase.

To help better manage the UAT phase, Capgemini provides **UAT as a Service** to address major test challenges, providing carriers with a proven and mature test organization to optimize UAT efforts.

Capgemini's UAT offering is an end-to-end fully customized service in which we take responsibility for test activities at either the enterprise or program level. A collaborative approach to sourcing testing and QA services, **UAT as a Service** is for carriers who want to transform their testing function and achieve high quality systems, reduce costs and improve effectiveness while maintaining the balance between day-to-day responsibilities, and overall control. Capgemini can support insurers with two different models:

- **Collaborative Model:** The insurer retains control of UAT and your SMEs and business users help perform test design, planning and execution. Capgemini provides test data management, deployment, metrics, tools and defect tracking, and scripting and execution for automated testing.
- **Fully Outsourced Model:** Capgemini takes complete responsibility for performing and managing UAT while committing to quality SLAs. Our team includes both test professionals and insurance industry specialists. Capgemini works with your SMEs to validate the test plan, scenarios and cases before executing UAT.

How We Address Common Challenges for User Acceptance Testing

Challenge	Capgemini's Solution
SMEs have no time to support UAT	Leverage automation tools such as Capgemini's Automation Framework Environment (CAFÉ) where SMEs spend time designing test scenarios and not executing tests
Users not happy with first hand view of the application	Apply Requirements Center to visually model requirements and wireframes so that users get an early look
Critical defects are found in later testing phases	Implement tools such as application heat maps to identify high-risk components and understand defect density for specific problem areas
Lack of valid test data	Begin planning for test data very early in the process so the right data is available for testing. Capgemini applies data masking to ensure that sensitive customer and financial data is secure and follows strict information security policies and procedures that are ISO 27001 certified

In Practice: Capgemini's Proven Track Record with Life Insurance Testing Engagements

Challenge	Capgemini's Solution	Benefits
<p>A leading U.S. life insurer was managing a complex mix of legacy and web-based applications for policy acquisition and administration. The insurer wanted to reduce overall testing costs, lower defect leakage and bridge the gap between business objectives and application modifications.</p>	<p>Capgemini conducted a Quality Blueprint assessment in five weeks, interviewing 30 stakeholders across different business lines, development, testing, and infrastructure. After comparing results against industry benchmarks, we recommended improving governance, test processes, planning and estimation; increasing use of automation for regression testing; and introducing the business analyst-quality assurance (BA-QA) role to bridge requirements gaps.</p>	<ul style="list-style-type: none"> • Lowered testing costs by 12% in eight months through test automation. • Reduced requirements defects by 15% and increased test coverage by introducing BA-QA role.
<p>A leading U.S. life insurer was facing manpower issues for manual and regression testing efforts. Transactions such as policy creation and underwriting processing were effort intensive and frequent application changes required repeat testing.</p>	<p>Capgemini assessed the current state and planned the future state model to utilize Test Automation. We established scalable, reusable frameworks and automation tools to improve testing productivity and created test data for functional testing using our automation framework. We also optimized license usage and cost through our offshore test lab and eliminated manual intervention through automated asynchronous testing.</p>	<ul style="list-style-type: none"> • Achieved annualized savings of \$184K or 8,000 man hours. • Reduced cycle times. • Lowered defect leakage. • Improved deliverable quality by minimizing manual test efforts.
<p>A major European life insurer wanted to standardize test processes across the organization while reducing labor costs, test cycles, and post production defects. The insurer wanted a partner who could provide end-to-end test services including functional and regression testing.</p>	<p>Capgemini developed a Test Center of Excellence to help reduce testing time and costs without sacrificing quality. Our testers brought life insurance experience to manage testing for key business process areas such as new business, policy servicing, inquiries and workflows. We developed the test suite, tested the implementation for a new business tool before the product user manuals were available, and provided UAT test support to business users. Overall the team supported 11 monthly releases and performed Life 70 testing for 12 product releases.</p>	<p>Today we are the preferred vendor for all quality assurance testing and test automation for this client. Key achievements:</p> <ul style="list-style-type: none"> • Significantly reduced post-production defects. • Automated test scripts for regression testing.
<p>The Asia Pacific operations of a global life insurer was using different versions of a policy administration system across eight countries in the region. This resulted in large IT demands as each country tried to adapt the application to accommodate local needs and ensure smooth integration with the regional life system in UAT.</p>	<p>For this User Acceptance Testing as a Service engagement, Capgemini helped standardize test methodologies for test planning, preparation and execution across all eight countries. We set up testing processes and developed in-house automated tools for use across the region to help standardize test activities so that country UAT and Capgemini UAT teams work simultaneously without duplicating efforts. We helped our client reduce QualityCenter licenses from 120 to 30, lowering test costs.</p>	<ul style="list-style-type: none"> • Capgemini is ranked as the No. 1 testing service provider for our client based on their supplier performance ratings. We earned this honor by successfully completing five major releases with no post production defects.

Why Capgemini?

- Industry standards including TMap Next[®], TPI Next[®] and Quality Blueprint[™].
- More than 14 books published on Quality Management.
- Unique financial services testing focus with proven accelerators for the insurance industry.
- More than 950 testing professionals dedicated to insurance, including those certified as Certified Software Test Engineer (CSTE), ISTQB, INS21/22/23, LOMA and PMP.
- Highly skilled testing leadership with an average of 10-15 years experience.
- Rightshore[®] network of centers in 40 countries provides the right skills in the right location at the right cost.
- Strong alliance partnerships with leading quality assurance and testing vendors including IBM, HP, Blueprint Systems, Surgient, ITKO and Aegissoft.

For more information, contact us at: insurance@capgemini.com
or visit: www.capgemini.com/insurance



About Capgemini

With 120,000 people in 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2011 global revenues of EUR 9.7 billion. Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience[™], and draws on Rightshore[®], its worldwide delivery model.

Learn more about us at
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