



TESTING & QUALITY ASSURANCE

SkyTECH – QA has developed Framework for Middleware Application Testing

SkyTECH Solutions' **Independent Verification & Validation Services Group (IV&V)** multiply the client's confidence by providing Assured Quality, reliability & wide stability radius of the software. We have matured testing process (efficient Test Strategy, excellent Test Planning, Cost effective Test Automation Approach) as well as skilled diversified domain experts, test engineers & technical experts.

Our Independent Verification & Validation process addresses the Test requirement identification, end-to-end traceability of requirements to defects, checklists and provides risk based testing.

TEST AUTOMATION

SkyTECH uses industry standard Tool such as Rational and other open source tools and identifies the best for the application. We provide consultancy for Test Automation Improvement

PERFORMANCE ENGINEERING

Our IV&V group offers performance-engineering services to determine the scalability of the application and its behavior under different real-world scenarios

SOFTWARE VALIDATION

Our Software Validation Services include an In-depth Functional Testing, Regression Testing, end-to-end Transaction Testing and Compatibility Testing

CONSULTING

SkyTECH provides QA consulting at different stages of the development life cycle. We advice on Enterprise Test Management & Test Process improvement

SkyTECH – QA presented a paper on Test Automation Strategies in 6th annual international software testing conference in India 2006 organized by QAI

INFRASTRUCTURE, TOOLS & TECHNOLOGY

- | | | |
|-----------------------------|---|------------------------|
| Functional Automation Tool | : | Rational Robot |
| Performance Automation Tool | : | Rational Vuser, Jmeter |
| Defect Tracking Tool | : | Clear quest |
| Test Management Tool | : | Test manager |
- SkyTECH QA Test Lab at our Offshore Development Center in Kolkata, India is best equipped for Compatibility & Performance Testing. It is capable of addressing **44 OS / Browser Combinations** from amongst the following:
- | | | |
|-------------------|---|--|
| Operating Systems | : | Win 9X, NT, 2K, XP, MAC, Linux |
| Browser | : | AOL, IE, Netscape, Mozilla, and Safari |

IV&V Expertise – Background

- Created to address the third party validation solutions
- Resource pool includes test engineers skilled in various QA methodologies
- Resource pool also includes technology specialists and domain experts
- Automation skills in tools from Rational, Mercury and Open Source
- Effective Test Management and defect tracking to ensure traceability and coverage
- Balanced resource distribution for handling any testing requirement
- Test lab for compatibility

CASE STUDY

Client

A major airline in U.S

Client Testing prior to SkyTECH's

- Automatic system getting down regularly due to some unknown reason
- 10% of total service time spent for maintenance - cause business downtime
- No expertise for complex Performance Engineering at this scale

Requirement

- To find the root cause of the problem creating "as-if-business" scenarios
- To make the application available for business 24X7

Engagement Approach

- Develop the performance engineering framework
- Gradually identify the interfaces and components causing the problem

Value Addition to Client

- Soft Launch of application driven by Performance Test Strategy
- Optimization of system capabilities by multiple simulated Work-load model and environments
- Quality Gates for release of application
- Automated Performance metrics collection 24x7 for application

Business Benefits delivered

- Save direct cost by pin-pointing the issue in 1st cycle and regular downtime of 4 hours
- Lower the Total Cost of Ownership (TCO) for client
- Through collection of Performance Metrics of system 24 x7 from offshore
- Through reusable artifacts and strategy for future upgrades

VALUE ADD @ IV&V**Baselined Estimation Models**

- *Function Point Analysis for Functional and Regression Testing*
- *Test point Analysis for Non-functional Testing*
- *Use Case Points for Functional & Regression Testing*
- *Cosmic Full Function Points for Transactional Systems*

Automation Framework

- *Repository of common function*
- *25% faster automation planning*
- *Paper presented at QAI*
- *Intelligent Regression Testing*

Open Source Tools

- *Expertise in Non-functional and Test management*
- *Enables cost savings on licenses*
- *In-house tools for testing middleware components*

SLA Parameters

- *ROI for automation to reduce QA cycle time*
- *Process control to reduce cost*
- *Metrication plan to optimize quality of software*

*R&D is a continuous process with the **IV&V Group @ SkyTECH** to keep abreast of latest technologies in the field of Software Testing & QA. The team provides training on these technologies and various Automation Tools to the newcomers to maintain the knowledge synergy*

ABOUT SKYTECH

SkyTECH Solutions provides IT consultancy services and develops niche software solutions for global airlines and airports. SkyTECH is an established player in the airline/airport IT domain.

Based in Chicago, SkyTECH has 3 Offshore Development Centers (ODCs) in India at Kolkata, Mumbai and Chennai. SkyTECH's offshore development infrastructure is certified to ISO 9001:2000, SEI CMM Level 5 and ISO 27001:2005.

SkyTECH's diverse client base is geographically spread in the USA and Asia-Pacific, and includes some of the largest airlines, airports and IT consulting firms of the world.

