

FUNCTIONAL TESTING
REGRESSION TESTING
LOAD TESTING
STRESS TESTING
LOCALIZATION TESTING
COMPATIBILITY TESTING
CONFIGURATION TESTING
SECURITY TESTING
INSTALLATION TESTING
UNIT TESTING
INTEGRATION TESTING
SYSTEM TESTING



OFFERINGS

Sigma Infosolutions' offerings are spread across both manual testing as well as test automation.

- ✔ Black Box
- ✔ White Box
- ✔ Grey Box
- ✔ Exploratory Testing
- ✔ Ad-Hoc Testing

Testing - The Most Critical Part Of A Product's Go-to-Market Strategy



One of the most critical aspects of a product's go-to-market strategy is its testing and quality assessment. Timing the release of a well tested and assured product to the market is a crucial element in a product's lifecycle. Over the last decade, a product's reliability has become a deciding factor in its success and almost immediately reflects on the balance sheet.

However, though businesses realize the impact of testing and quality assurance, they sometimes overlook the long term harm that an incompetent or incapable testing partner can cause. The testing and quality assurance partner needs to have a fully functional and comprehensive testing

environment that ensures not just a zero defect launch time and again for your products, but also helps align your business objectives better.

Sigma Infosolutions' 'Multiple Build' model for managing software development and testing services ensures that the complete engagement with the client is carried out efficiently without compromising on quality. The processes are verified through quantifiable metrics which justifies the client's investment at every stage of the process. The team consists of experts who have the relevant technology and domain expertise to deliver end-to-end testing services. They have the ability to understand the business impact of every engagement.

BEST PRACTICES

- ✔ The test conditions are developed simultaneously while the code is being developed which saves significant amount of time and effort
- ✔ A comprehensive software inspection is done to identify defects in the product
- ✔ The software product is implemented on multiple platforms to ensure that it performs equally well on each of them. Modifications are sometimes needed for running the product on some of the platforms
- ✔ Automated testing is conducted wherever possible
- ✔ Automation test scenarios are identified and converted in to scripts that are run on every build without manual intervention to ensure that the build is in testable state.



INFRASTRUCTURE & WORKING ENVIRONMENT

Sigma Infosolutions Q-100 Laboratory is a best-in-class testing infrastructure that is specially designed to engage the most rigorous test automation and manual testing. Our working environment comprises of a comprehensive range of tools, hardware, and software that allows us to quickly ramp up to capacity when in need of testing specialists on any domain.



Tools:

Jmeter, WebLoad, JUnit, Automation Anywhere, Bugzilla, Testopia, CVS, EMMA, Continuum



Hardware:

Windows: XP, Vista Boxes, Mac Books; Ubuntu Servers; High resolution Monitors 15", 17" & 21"; Windows Servers: 2003, Exchange Servers; RAM: 1 GB to 8 GB



Browsers:

Firefox 2.0, 3.0, IE: 6, 7, Opera, Netscape, Camino, FF 2, Safari (MAC)



Network:

Firewall, Work Group, Client Server Network, VPN

OUR CLIENTS



ENGAGEMENT MODEL

Today we live in a flat world, thanks to globalization and the ever advancing technology. Transporting resources from one part of the world to another to achieve your testing requirements has become a thing of past. With development centers spread across entire US and UK, Sigma Infosolutions follows the Global Delivery model so as to achieve optimum business benefits from every client engagement. The global delivery model enables resources to work during different time zones, which ensures that the production never stops. This makes it possible to achieve the project deadline much faster. Also the close proximity to the client facilitates better communication and helps accomplish the goals at significant cost savings.

OUR METHODOLOGY

MULTIPLE BUILD APPROACH

The Multiple Build model has been devised and developed to address customer requirements at different phases of the software development life cycle. This model encompasses an incremental testing methodology in order to accelerate the development time.

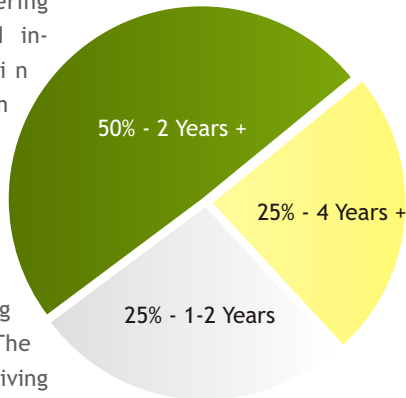
In this model requirements are first documented and a high level design is executed to envision and plan the entire process. Next a detailed design is created and various testable subsystems are constructed and scheduled at different phases in the engagement. Once all the subsystems are developed testing is conducted on the complete system to ensure its functionality. Once the testing is successful the first build is delivered to the customer.

For the next build, the customer's feedback is incorporated along with the basic requirements to create a high level design and the remaining process is carried out as before. This process is repeated for all the builds until each and every requirement and concern of the customer is accurately incorporated and the final product is delivered and accepted by the client.

A TUV certified ISO 9001:2000 company

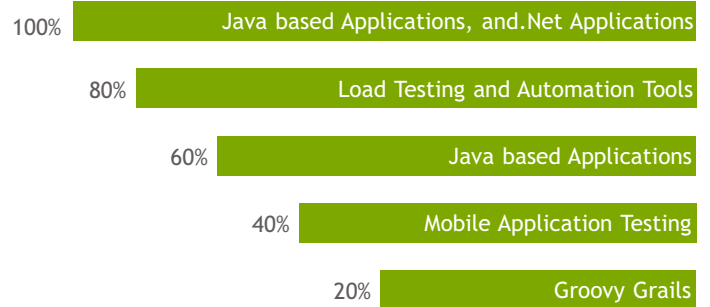
RESOURCE POOL

Sigma Infosolutions has a dedicated team of certified professionals who have extensive expertise in delivering testing services and in-depth domain knowledge. The team constituting of 8 members not only has the technology expertise but also has the ability to tackle changing customer needs. The team is constantly striving to deliver the best testing solution to the clients as it is well aware of its impact on the clients' bottom-line.



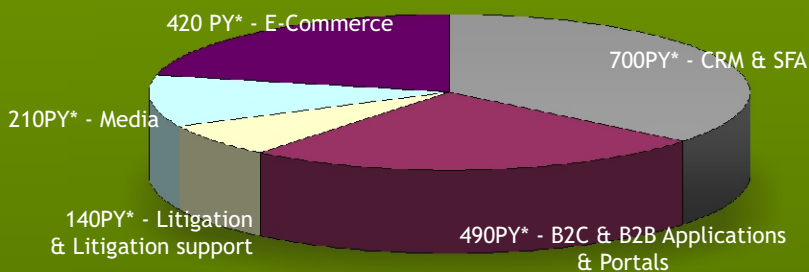
QA Team Classification based on work experience

TECHNOLOGY EXPERTISE



DOMAIN SPECIALIZATION

- ✔ E-commerce
- ✔ Media
- ✔ Litigation & Litigation Support
- ✔ B2B & B2C Applications and Portals
- ✔ CRM & SFA



Domain expertise - Classification based on number of person years (PY)* of experience



FEATURED CASE STUDIES

End-to-End Verification and Validation for an Antiques Dealer that provides hassle free LIVE Vintage Auction Experience

1

Testing Services Offered

- ✔ Load Testing
- ✔ Stress Testing
- ✔ Usability Testing
- ✔ Security Testing
- ✔ Compatibility Testing
- ✔ Integration Testing
- ✔ Functional testing

The Client

The client is one of the prominent auctioneers based out of Florida, North America. With over two decades of experience in auctioning of antiques, Jewelry, and old paintings; this dealer of antiques and collectibles prides itself on providing a very unique and exciting vintage auctioning experience. Their auctioning portal is a comprehensive e-commerce portal with a LIVE auctioning engine which enables customers to participate in an auction or host an auction for a variety of products while experiencing the thrill of old fashioned auctions.

Challenges

- ✔ Requirement Analysis due to interlinked functionalities & dependencies of different modules.
- ✔ Data creation of up to 100,000 Users, 50,000 listings etc.
- ✔ 6000+ Test Cases were written using different methodologies & equivalence class partitioning for Testing various modules
- ✔ Complexity due to different type of Auctions as Publicly available, Registered buyers only, Registered and Approved buyers only, Fully private, Semi-private Auctions, etc along with animated auctioneers demonstrating live and proxy bidding, Various User status & roles, Feedback & ranking mechanism etc.
- ✔ Dynamic Data Handling

Tools

- ✔ Jmeter
- ✔ WebLOAD
- ✔ Badboy
- ✔ Continuum

2

Testing a Comprehensive Online B2B Print Order Management System for a leading Producer of Marketing and Communication Material

Testing Services Offered

- ✔ Load Testing
- ✔ Stress Testing
- ✔ Usability Testing
- ✔ Security Testing
- ✔ Compatibility Testing
- ✔ NFR Testing
- ✔ Functional testing

Tools

- ✔ Jmeter
- ✔ Badboy
- ✔ Emma

The Client

The client is proficient in manufacturing and delivery of marketing and communication material across various non-profit and business organizations. Located in Virginia, the company accommodates the state-of-the-art paraphernalia required to produce all such documentation. They have the expertise to design, print, and mail collateral from a single location to multiple destinations. They are a team of technology savvy professionals who have the ability to exploit technology and deliver end-to-end support to their customers while maintaining a quick turnaround time.

Challenges

- ✔ Customer Oriented Branding as customer is dealing with various companies across the globe
- ✔ Complexity of the work flow & functionality like multiple location delivery of single order with multiple Items. For such an order shipping charges calculation for multiple locations based on location, Different tax structure, User based Payment privileges like pay by Credit Card or charge to account.
- ✔ A Shipping calculator was integrated with UPS shipping service provider. Testing was carried out for Functionalities like single and multi destination shipping. For multi destination delivery of order, shipping charges calculation for multiple locations was based on location, allotted quantity etc.
- ✔ Dealing with huge & confidential data of various companies to achieve data and access security
- ✔ Data security across the company's different users & roles were tested.

Over 90% Reduction in Video Review Time using a Video Surveillance Analysis Solution for a Nationwide Litigation Support Company in the US

3

The Client

Based in the US, the client is a premier provider of litigation and business consultation services to the world's leading law firms, Fortune 500 companies, government agencies as well as private and public sector industries. With experts such as economists, statisticians, analysts, and other professionals, the client provide services for litigation and other consulting matters that require statistical, analytical, and functional expertise. One of their areas of specialization is building litigation cases through video evidence prepared through surveillance feeds.

Challenges

- ✔ Verifying the duration of the video clip before and after its tagging and retagging is completed
- ✔ Verifying all the operations of the player control at normal, forward and slow motions speeds
- ✔ Generating activity log and camera log
- ✔ Generating start time and end time updates after 'add', 'delete' and 'save' operations.
- ✔ Verifying playback of camera tagged video and camera highlighting during the playback
- ✔ Validating the user access permission during different operations

Testing Services Offered

- ✔ Installation Testing
- ✔ Compatibility Testing
- ✔ Usability Testing
- ✔ Stress Testing

Tools

- ✔ Automation Anywhere 5.0

“*Sigma is a very professionally run organization that makes the processes of offshore development as easy and efficient as it can be. They have very high quality talent that are able to deliver quality meeting our tough standards. The relationship with sigma has enabled us to cost effectively expand our resource pool and bring our product to market faster and with a more complete user experience.*

- Erik Hogan, Director-Product Management, Attributor Corporation, Redwood City, USA

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4

Independent Verification and Validation of Sling Player and Sling Box Software, an award winning product from Sling Media

The Client

Sling Media, Inc., a wholly owned subsidiary of EchoStar Corporation (NASDAQ: SATS), is a leading digital lifestyle company offering consumer services and products that are a natural extension of today's digital way of life. Sling Media's product family includes the internationally acclaimed, Emmy award-winning Sling box™ that allows consumers to watch and control their living room television shows at any time, from any location, using PCs, Macs, PDAs and smartphones and the revolutionary new SlingCatcher™, a universal media player that seamlessly delivers broadcast TV, Internet video and personal content to the TV. Sling Box in conjunction works with Sling Player.

Scope of Testing

Various features were tested on various versions of Blackberry mobile handset, Apple iPhone, and Windows PPC and PC.

Testing Services Offered

- ✔ Acceptance Testing
- ✔ Regression Testing
- ✔ Full Cycle Testing



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About Sigma Infosolutions

- ✔ Sigma Group, an Indian conglomerate has more than 4 decades of experience in Mining, Chemicals Manufacturing & Export, Handicrafts Manufacturing & Exports, and Software Development
- ✔ Headquartered in US with presence in UK and India
- ✔ Some of our esteemed customers include Airtel, Zyme Solutions, Yodlee, Celertity Consulting, Resolution Economics, Birla Global Asset Finance, Fosroc Chemicals, Surgery Planet etc.
- ✔ Other Services span across Program Management, Project and Product, Application Management, Consulting
- ✔ Our Mission: We work towards providing reliable, relevant and robust IT solutions at most competitive prices to our customers. We ensure 100% customer satisfaction at all times

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