RIMUS Testing Service Offerings

Testing Ecosystem Overview

Testing Practice

System Testing	System Integration Testing	Regression Testing	Functional Testing	Test Automation

Infrastructure Tools
- Tool Maintenance & Support
- Test Automation
- Tool Implementation
- Tool Provision

Process Practice
- Process Maintenance
- Process Definition
- Metrics Program
- Test Process Training
- Continuous Process Improvement
- Best Practice implementation

Test Metrics Management

Test Program Management

Test Planning & Estimation

Testing Practice

Test Reporting

Test Design & Build

Test Execution & Management

Flexible resourcing

Standard process & Frameworks

Common Tools, Infrastructure & Automation

Solution Accelerations/ Best practices

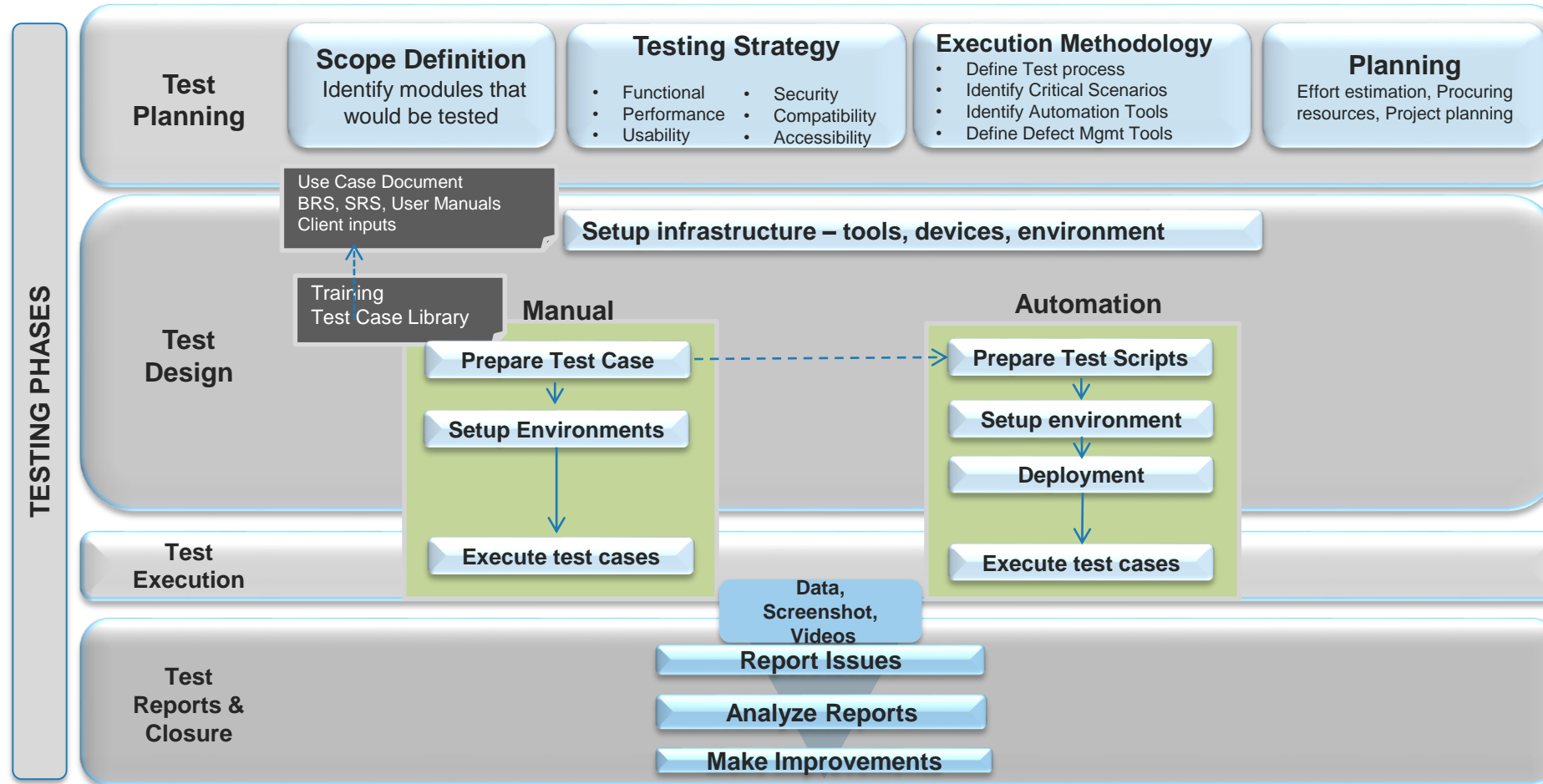Governance structure

Global Delivery Model

Robust & Customer Centric Delivery Model

1 One to one mapped global delivery model eliminating "throw over the wall approach"

2 Onsite- Offshore teams seamlessly integrated through shared infrastructure

3 Round the clock connectivity via multiple media such as Skype, WhatsApp etc

4 Focus on total integration, sustainability, risk mitigation, reduced response time & success measured at multiple levels
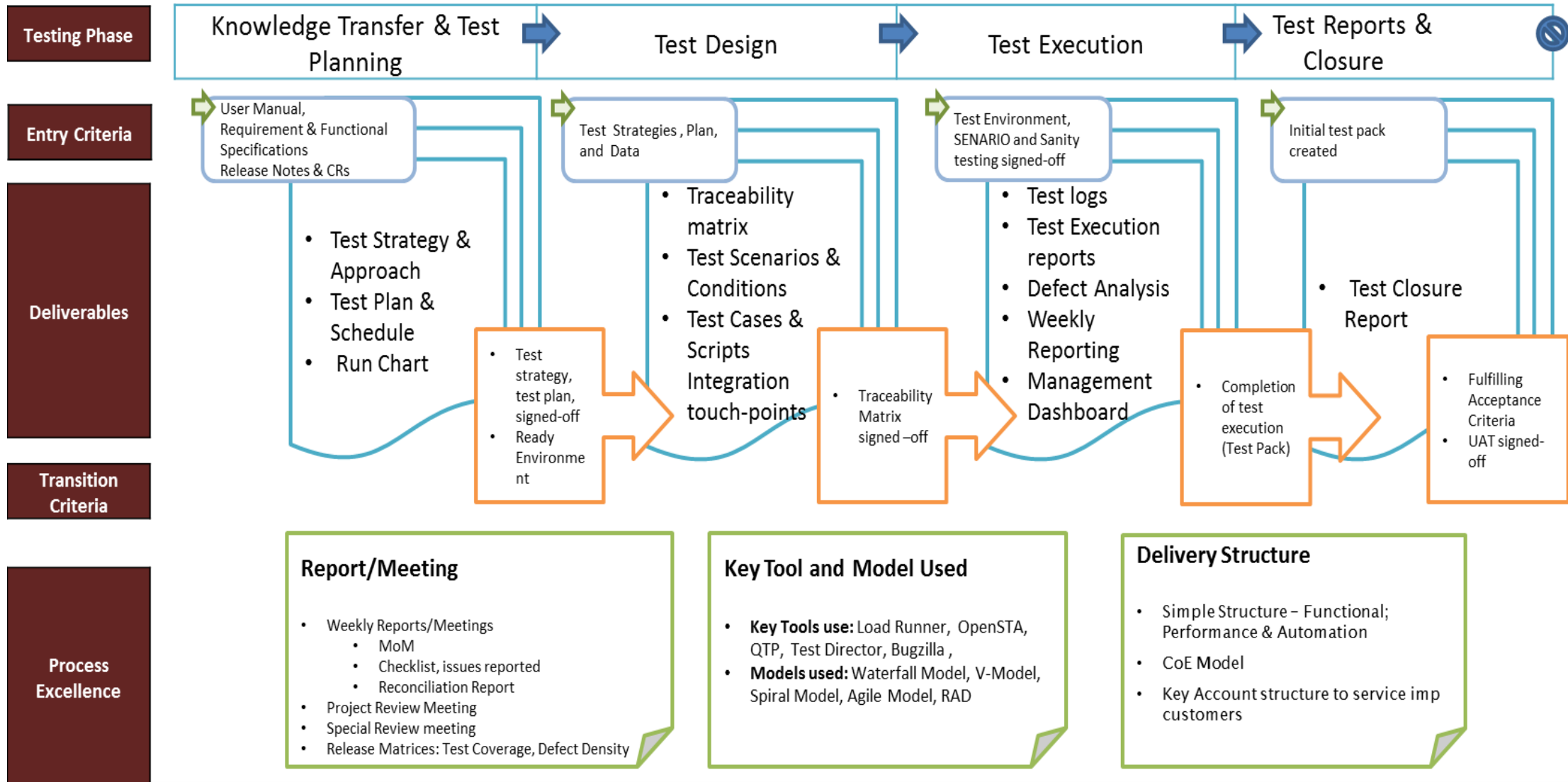
Best Practices Employed
- Structured and well defined communication protocol that addresses:
  - Daily/Weekly/Monthly Status reports
  - Identification of single point of contact from RIMUS, thus easing communication issues
- Well defined issue escalation paths for each project combined with SLAs for addressing issues based on their categorization
- Flat organizational hierarchy ensuring oversight and attention by top management
- Metric based reporting to track and trend offshore productivity
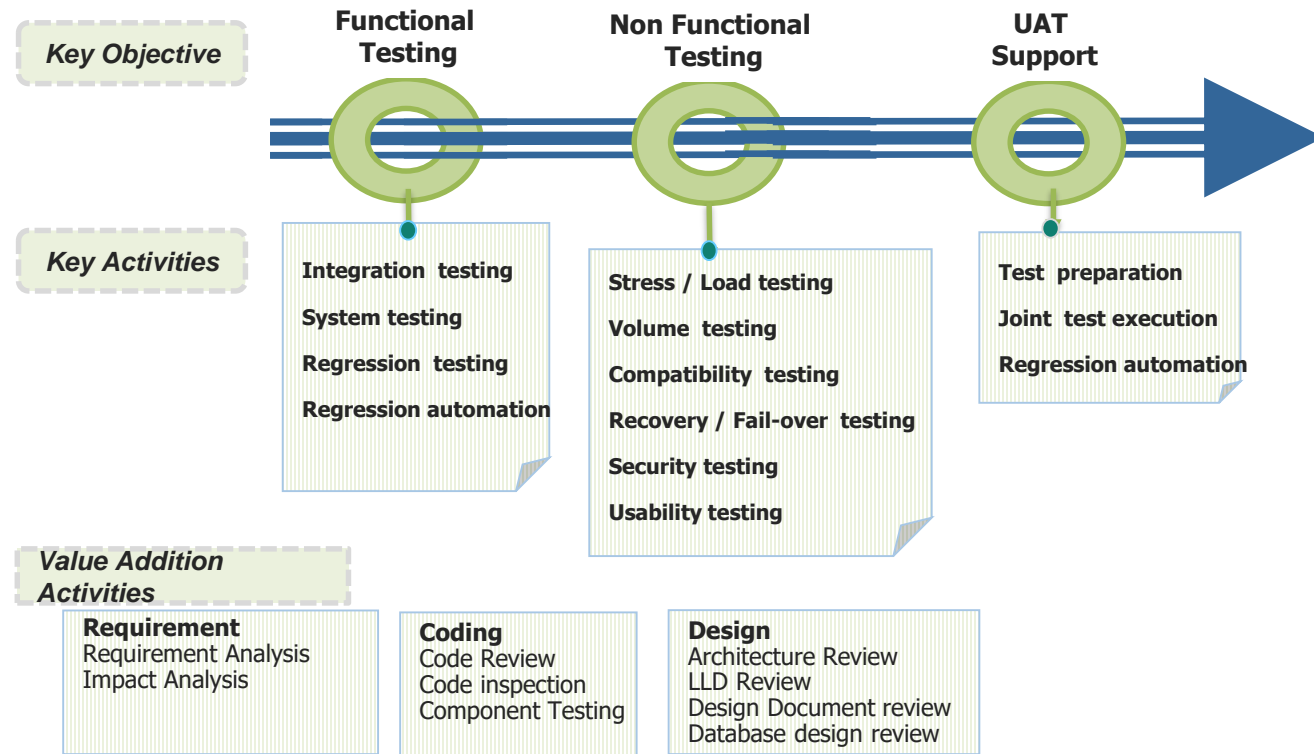
RIMUS Offshore Testing Process

TESTING PHASES

Test Planning

Scope Definition
Identify modules that would be tested

Testing Strategy
- Functional
- Performance
- Usability
- Security
- Compatibility
- Accessibility

Execution Methodology
- Define Test process
- Identify Critical Scenarios
- Identify Automation Tools
- Define Defect Mgmt Tools

Planning
Effort estimation, Procuring resources, Project planning

Test Design

Use Case Document
BRS, SRS, User Manuals
Client inputs

Training
Test Case Library

Setup infrastructure – tools, devices, environment

Manual
- Prepare Test Case
- Setup Environments
- Execute test cases

Automation
- Prepare Test Scripts
- Setup environment
- Deployment
- Execute test cases

Test Execution

Test Reports & Closure

Data, Screenshot, Videos

- Report Issues
- Analyze Reports
- Make Improvements

Testing Delivery Framework

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Testing Phase	Knowledge Transfer & Test Planning	Test Design	Test Execution	Test Reports & Closure

Entry Criteria

- User Manual, Requirement & Functional Specifications Release Notes & CRs
- Test Strategies, Plan, and Data
- Test Environment, SENARIO and Sanity testing signed-off
- Initial test pack created

Deliverables

- Test Strategy & Approach
- Test Plan & Schedule
- Run Chart

- Traceability matrix
- Test Scenarios & Conditions
- Test Cases & Scripts Integration touch-points

- Test logs
- Test Execution reports
- Defect Analysis
- Weekly Reporting
- Management Dashboard

- Test Closure Report

Transition Criteria

- Test strategy, test plan, signed-off
- Ready Environment

- Traceability Matrix signed –off

- Completion of test execution (Test Pack)

- Fulfilling Acceptance Criteria
- UAT signed-off

Process Excellence

Report/Meeting

- Weekly Reports/Meetings
  - MoM
  - Checklist, issues reported
  - Reconciliation Report
- Project Review Meeting
- Special Review meeting
- Release Matrices: Test Coverage, Defect Density

Key Tool and Model Used

- **Key Tools use:** Load Runner, OpenSTA, QTP, Test Director, Bugzilla,
- **Models used:** Waterfall Model, V-Model, Spiral Model, Agile Model, RAD

Delivery Structure

- Simple Structure – Functional; Performance & Automation
- CoE Model
- Key Account structure to service imp customers
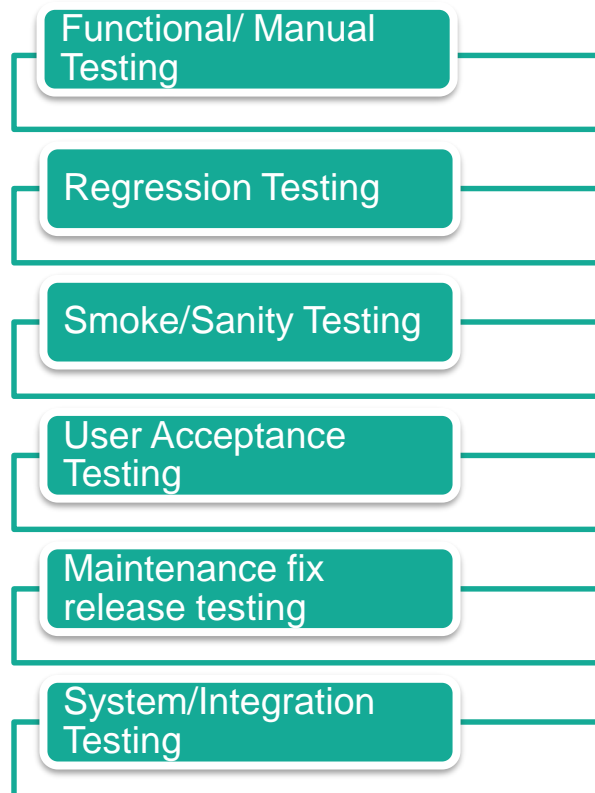
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End to End Testing

RIMUS end to end testing services integrate efficient quality assurance processes into the software and system lifecycle with reduced cost and time

EXPERTISE

Key Objective

| Functional Testing | Non Functional Testing | UAT Support |

Key Activities

Functional Testing	Non Functional Testing	UAT Support
Integration testing	Stress / Load testing	Test preparation
System testing	Volume testing	Joint test execution
Regression testing	Compatibility testing	Regression automation
Regression automation	Recovery / Fail-over testing	
	Security testing	
	Usability testing	

Value Addition Activities

Requirement	**Coding**	**Design**
Requirement Analysis	Code Review	Architecture Review
Impact Analysis	Code inspection	LLD Review
	Component Testing	Design Document review
		Database design review

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Functional Testing

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- Functional/ Manual Testing
- Regression Testing
- Smoke/Sanity Testing
- User Acceptance Testing
- Maintenance fix release testing
- System/Integration Testing

- Our Functionality testing validates that an application conforms to its specifications and meets its expected functional requirements

- Experienced expertise thorough with test core functional aspects of the application to ensure completeness of system architecture and seamless interoperability of all system components.

- Our Team is cross-trained and exposed to various verticals like BFSI, Retail, Telecom, Life Science and IT and many more

- Based on statistical techniques and Business scenario-driven model-based testing

- Use automated test cases from customized libraries and risk-driven functional testing methodology for execution progress, defect status, and residual defects

Test Automation
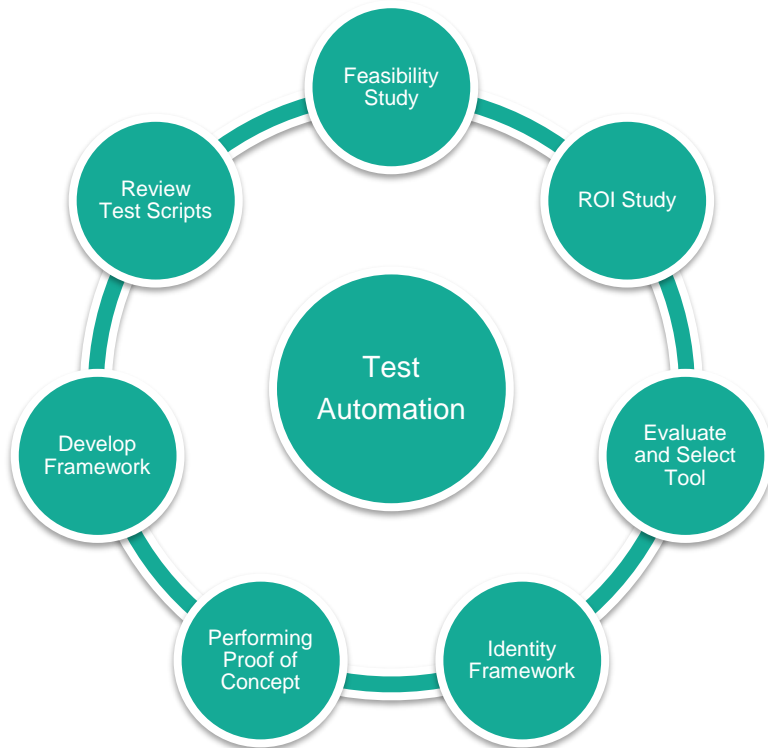
- Certified automation specialists with Consulting approach to reduce risk and maximize ROI

- Experience in various test automation models i.e. Keyword, database & hybrid, empowering us to customize a solution to meet demand of our customers

- Expertise in tools like HP quick test professional, selenium IDE, RC etc.
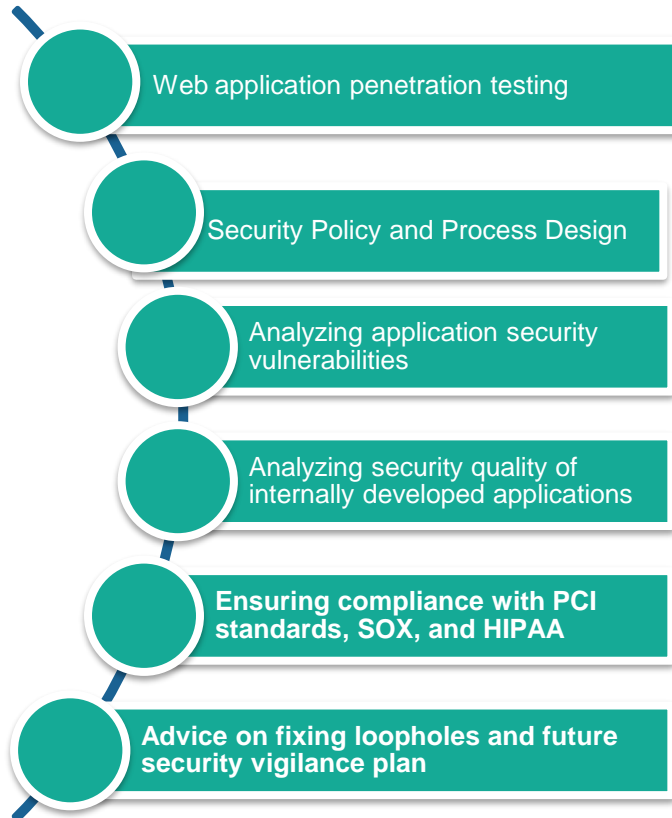
Performance Testing

"Perfect blend of performance and engineering technique to enable business transformation of new and existing applications"
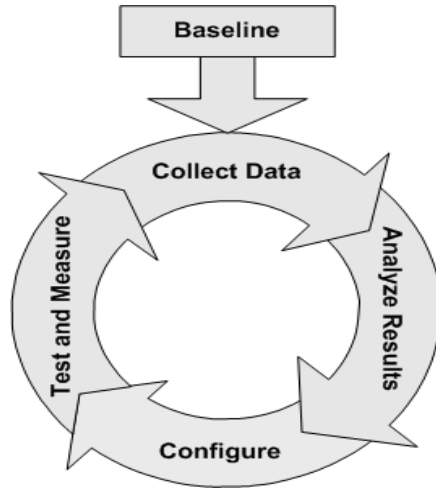
- Expertise to test the strength and performance under static and dynamic load conditions leveraging industry standard Tools

- Conducting pre-production performance Checks to ensure compliance with Business SLAs

- Equipped with the expertise in databases, high volume transaction systems, and related technologies to evaluate the usage patterns on your system and end-user experience under varying amounts of traffic

- Dedicated Testing Lab with ability to simulate desired test conditions

- Vendor agnostic with experience in proprietary as well as open source testing tools

Security Testing Offerings

- Web application penetration testing
- Security Policy and Process Design
- Analyzing application security vulnerabilities
- Analyzing security quality of internally developed applications
- **Ensuring compliance with PCI standards, SOX, and HIPAA**
- **Advice on fixing loopholes and future security vigilance plan**

Security Testing Activities

- Creating security abuse/misuse cases

- Listing normative security requirements

- Performing architectural risk analysis

- Building risk-based security test plans

- Wielding static analysis tools

- Performing security tests

- Performing penetration testing in the final environment

Challenges in Testing 1/3

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Key Challenges:

- **Almost all projects have aggressive delivery schedules**

- **Testing as a function is always overlooked within development team structure**

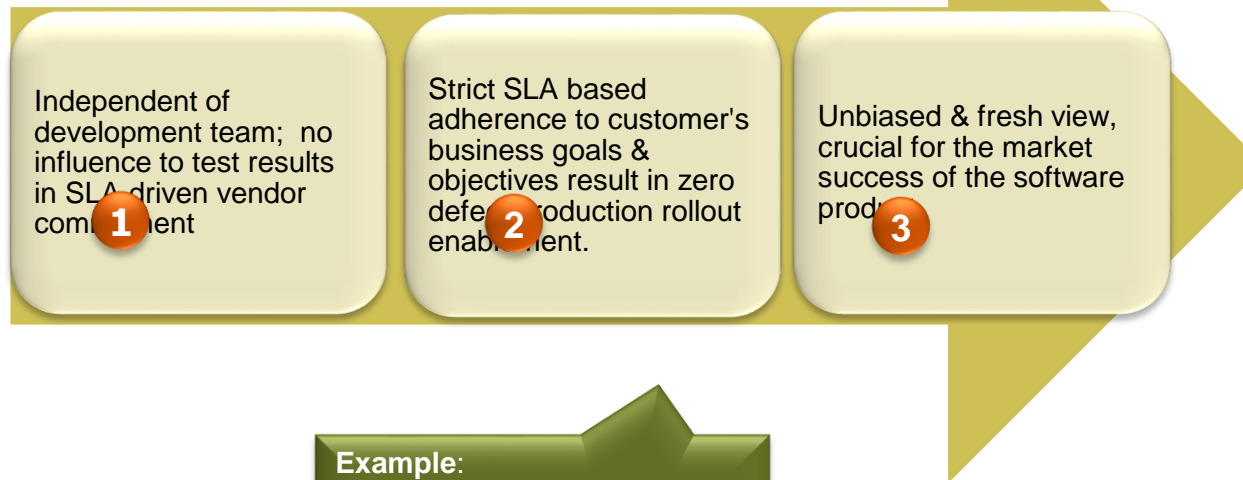**How RIMUS helps tackle Aggressive Delivery Schedules**

- Project testing engagement start from day 1 with unbiased & fresh view

- Engagement in each level of SDLC to help identify bugs at the earliest stage

- Reduction in lead time through use of common processes, standards, tools, & resources

- Early detection of defects results in dramatically reduced time to fix bugs

- Long term reduction in the length of the test process and testing costs

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Key Challenges:

- In many organizations, the development and the testing team interact very closely , which result in overlooking of bugs

- Late detection of critical bugs

How RIMUS helps tackle Biased & Subjective Testing

1 Independent of development team; no influence to test results in SLA driven vendor commitment

2 Strict SLA based adherence to customer's business goals & objectives result in zero defect production rollout enablement.

3 Unbiased & fresh view, crucial for the market success of the software product

Example:
- Identify 80% bugs within first testing cycle
- Quantum of bugs identified within production to be benchmarked
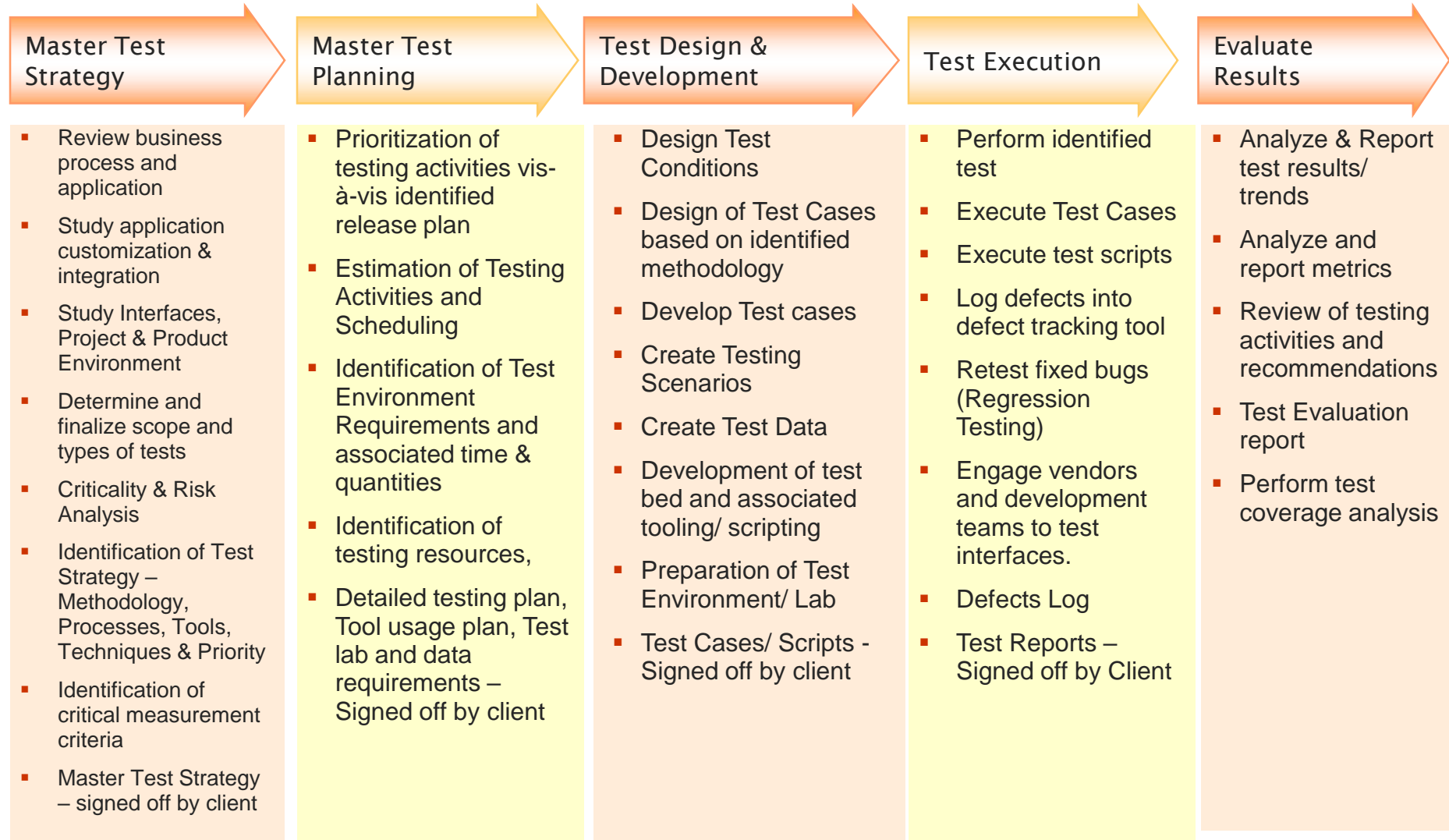
Challenges in Testing 3/3

Key Challenges:

- **Challenges in hiring and retaining high quality testing resources**

- **Lack of proper testing tools &processes**

How RIMUS helps tackle Lack of resources / Rising costs

- Enhanced productivity & operational efficiency
  - Synergy of skilled people with excellent Domain Skills
    - Best-of-breed testing tools, techniques, standard processes,
    - Automation frame works, and reusable components
- ROI-based justification through continuous cost-savings, improved productivity, better quality of service.
- Availability of pool of resources during peak of testing activities
- Organization can focus on more important rollout related activities ensuring a good launch for the product/project

Execution Approach

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Master Test Strategy	Master Test Planning	Test Design & Development	Test Execution	Evaluate Results

Master Test Strategy
- Review business process and application
- Study application customization & integration
- Study Interfaces, Project & Product Environment
- Determine and finalize scope and types of tests
- Criticality & Risk Analysis
- Identification of Test Strategy – Methodology, Processes, Tools, Techniques & Priority
- Identification of critical measurement criteria
- Master Test Strategy – signed off by client

Master Test Planning
- Prioritization of testing activities vis-à-vis identified release plan
- Estimation of Testing Activities and Scheduling
- Identification of Test Environment Requirements and associated time & quantities
- Identification of testing resources,
- Detailed testing plan, Tool usage plan, Test lab and data requirements – Signed off by client

Test Design & Development
- Design Test Conditions
- Design of Test Cases based on identified methodology
- Develop Test cases
- Create Testing Scenarios
- Create Test Data
- Development of test bed and associated tooling/ scripting
- Preparation of Test Environment/ Lab
- Test Cases/ Scripts - Signed off by client

Test Execution
- Perform identified test
- Execute Test Cases
- Execute test scripts
- Log defects into defect tracking tool
- Retest fixed bugs (Regression Testing)
- Engage vendors and development teams to test interfaces.
- Defects Log
- Test Reports – Signed off by Client

Evaluate Results
- Analyze & Report test results/ trends
- Analyze and report metrics
- Review of testing activities and recommendations
- Test Evaluation report
- Perform test coverage analysis

Based on Project Size (Onsite/Offshore)

Key Differentiators

- Proficiency in latest technologies, awareness of testing dynamics, and rich repository of re-usable test cases

- Assure low-cost Application testing services, robust QA consulting, effective resource optimization, and on-time delivery

- In depth experience and expertise / knowledge of various domains, IT architecture, testing requirements, scope management, performance benchmarks

- Testing Centre of Excellence approach that combines domain expertise, technology and specialized testing skills.
- Service-Oriented Architecture (SOA) testing framework, a comprehensive approach that manages all dimensions of testing:
  - **Type of testing :** Functional, conformance, Platform, interoperability, security, Negative, Scalability, stability, Load/Stress, Performance, Soak testing etc.
  - **Tools and simulators expertise :** N2X, Adtech, Smart bits, Wire shark, Spirent etc.
  - **Automation expertise :** Perl, TCL/TK, Expect, Shell scripting, VB, Ruby, Python.
  - **Test Tools expertise :** LoadRunner, QTP, Jmeter, Quality Centre, Selenium
  - **Management Interfaces :** CLI, Web, SNMP**.**

Value Proposition

- Extensive test lab setup and ideal environment for testing apps dealing with highly confidential data

- Expertise in automation tools,usability, security, load testing

- Rich device bank and flexible engagement models

- Testing enhanced with ready bug fixing and development support

- Leverage mature processes and best practices

- Engagement in each level of SDLC to help identify bugs at the earliest stage

- Strict SLA based adherence to customer's business goals & objectives

- ROI-based justification through continuous cost-savings, improved productivity, better quality of service.

- Enhanced productivity & operational efficiency by Best-of-breed testing tools, techniques, standard processes,

Why RIMUS?

- RIMUS brings testing specialists to engagements, as required, to ensure proper software testing techniques are applied on an engagement-by-engagement basis.

- Provide both domain and technical expertise to our clients.

- Experienced test engineers who excel in majority of the testing tools provided by market leaders, like HP Quick Test Professional, Load Runner etc. and open source tools such as; Selenium, Sahi, Apache JMeter and Open STA.

- Independent PMO that ensures all the software processes diligently follow throughout the SDLC.

- Relationships with tool vendors and knowledge of open source tools to provide the best testing solutions.

- No 'Us' and 'Them' approach but 'We' approach

- Availability of pool of resources during peak of testing activities