Today’s Agenda

» Background
» Overview of QA Engagement Models — MTC & ITC
» The Journey to Steady State
» Transition Approach
» Challenges & Solutions
» Best Practices
» Business values realized...
» What’s next?
### About Engagement

- Client organization has two major divisions – Life and Property/Casualty. Provides various coverages for different LOBs like Auto insurance, Life Insurance, Homeowners Insurance, Property, General Liability, Workers’ Compensation, Commercial Auto, Group Benefits, Retirement Plans, etc.

- Vendor Partner had 5+ years of partnership with the Client and provided various QA services like System/Functional Testing, Integration Testing, Data Warehousing Testing, Performance Testing, Test Automation, Test Assessment and Test Process Consulting.

### Engagement Complexity

<table>
<thead>
<tr>
<th># of business segments across Life and P&amp;C divisions: 8</th>
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<tbody>
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<td># of applications supported: 400+</td>
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<tr>
<td># of releases supported every year: 100+</td>
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<td>Size of the QA Organization: 400+ FTEs</td>
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- Multi vendor involvement across SDLC
- Decentralized QA teams aligned to business segments with different maturity levels

### Customer Asks

- Optimize QA Spend
- Improve Speed to Market
- Increase Test Coverage
- Improve consistency across QA process

- Accountability on Vendor Partners
- Engagement Maturity
- Transform into a Best in Class (BIC) Org
Managed Test Center Overview

Managed Test Center

- End-to-end ownership of Maintenance/Tactical QA for in scope applications
- Service – based, SLA driven organization responsible for providing cost-efficient testing solutions and having shared accountability for the quality of application released into production.
- Vendor partner handles end-to-end testing responsibilities across maintenance and production support within Client Organization.
- Client – SLA Monitoring and Issue Escalation

Business Drivers for establishing MTC

- One Stop Solution for all Testing needs
- Risk Sharing
- SLA Driven
- Standardize processes
- Improve quality
- Optimize operational cost
- Improve Time to market

Operating cost: Optimal operating cost due to increase in repeatability & reusability maintained with common unit for work

SLAs: Benchmarked and Baseliend SLAs for project delivery

Process Standardization: Standardized processes throughout the enterprise

Productivity Improvements: Committed YoY productivity improvements

Transparency: Complete transparency through metric based management

Risk: Risks are better managed

Knowledge Management: Robust & Centralized knowledge repository to cross train resources

Organization: Centralized testing functions at Enterprise level

Delivery Model

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<tr>
<th>Initiation</th>
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<th>Test Execution</th>
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Client | Cognizant

End-to-end ownership of Maintenance/Tactical QA for in scope applications

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Client – SLA Monitoring and Issue Escalation

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Client | Cognizant
Integrated Test Center Overview

Integrated Test Center

- Shared ownership of Strategic/Invest QA across LOBs for in scope projects
- Shared accountability between Client and Vendor partner, with Client having primary responsibility for majority of the test planning functions.
- Vendor partner owns complete accountability/responsibility for Test Design and Execution with support from Client
- Client – SLA Monitoring and Issue Escalation

Business Drivers for establishing ITC
- Standardize processes
- Improve quality
- Optimize operational cost
- Improve Time to market

Delivery Model

Test Management

- SLA Monitoring, Issue Escalation & Engagement oversight

Client Cognizant

Organization: Centralized testing functions at Enterprise level

- SLAs: Benchmarked and Baselined SLAs for project delivery
- Process Standardization: Standardized processes throughout the enterprise
- Productivity Improvements: Use of reusable test artifacts
- Transparency: Complete transparency through metric based management
- Resourcing: Core and flex teams to handle resource fluctuations
- Knowledge Management: Robust & Centralized knowledge repository to cross train resources
Enterprise QA – Steady State Ecosystem

Service Spectrum

- System Testing
- System Integration Testing
- Regression Testing
- Test Automation
- Functional Testing

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

Test Center of Excellence
- Test Metrics Management
- Test Program Management
- Test Planning & Estimation
- Test Reporting
- Test Design & Build
- Test Execution & Management

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

Core – Flexible resourcing
- Standard process & Frameworks
- Common Tools, Infrastructure & Automation
- Solution Accelerations/Best practices
- Governance structure
Service Level Agreements (SLAs)

- **SLA Category**
  - **Quality**
    - SLA 1: Defect Leakage
    - SLA 2: Test Effectiveness
  - **Time to Market**
    - SLA 3: On Time Delivery

- **LOB wise SLA**
  - Each LOB has 3 SLAs – Total 15 SLA’s

- **Measurement Window**
  - End of Each Quarter
  - End of Each Month
  - End of each Release

- **Reported to**
  - QA Management
Enterprise QA – Roadmap to the future

**People**
- Create Organization Goals and Policy
- Publish Communication Plan
- Define Roles and Responsibilities
- Define skill set for various roles
- Establish steering committee forum
- Publish service charter for QA Organization
- Assess & Record the role definition of BA/QA through HR
- Establish the BA-QA Transition plan
- Review and implement Roles and Responsibilities
- Evaluate training effectiveness
- Track Productivity record for each resource
- Create Core & Flex team
- Create Delivery Excellence group
- Cross training of resources
- Revisit productivity baselines
- Resource rotation across projects
- Evaluate skill set and identify training needs
- Create / Update formal induction plan
- Perform Root Cause Analysis
- Establish Audit Process
- Institutionalize Change control Process
- Implement base lined estimation model
- Collect and Analyze Metrics
- Conduct feasibility of using automation for functional testing

**Process**
- Standardize Templates and Artifacts
- Customize Metrics Framework
- Mandate Peer Review
- Define Organization SLA
- E – Knowledge repository should be socialized across all divisions.
- Create / Update Regression test bed
- Refine , Customize and implement Reusable best practices across all LOBs
- Institutionalize Test Management tools
- Standardize tools suitable for specific LOBs
- Customize and Institutionalize automation framework
- Training /Awareness & Implementing
- Training, Piloting & Implementing
- Direct Implementation
- Investments

**Technology**
- Consistency in test management tools across LOBs
- Integrated test management tool with requirement management tools
- Maintain Test Data repository for each segment
- Periodically update environments wherever necessary and invest in new environments
- Implement data masking and scrubbing process
- Continuous Process Improvement
- Update estimation model based on productivity data
- Monitor Environment & Optimize usage
- Conduct feasibility of using automation for functional testing
Transition
Approach, Challenges and Solutions
Knowledge Repository

**Pre DD**
- Identify POC’s
- RBAC consolidation
- Preparation of Project Plan
- Preparation of DD Questionnaire

**Due Diligence**
- Understand Scope, Gather application information
- Analysis of data gathered
- Develop Due Diligence Report
- Update/Refine Contract
- Schedule Interviews
- Circulate DD questionnaire

**KT Planning**
- Develop Detailed KT plan
- Identify KT participants
- Schedule KT sessions

**Knowledge Transition**
- In depth understanding of:
  - Application
  - Business Process
  - QA Processes
  - Tools Usage
  - Document Understanding
  - KT document sign off

**Service Stabilization**
- Shadowing
- Reverse Shadowing
- Hands on Practice
- Participate in testing activities
- Guided Support from Client
- Sign Off KT Documents

**LOB Approval**

**Steady State**
- Execute all activities on agreed upon Scope
- Collection and Analysis of Metrics
- Consistent Processes across all segments
- Continuous Improvement
- SLA Monitoring and reporting

Management Support
Challenges and Solutions

Non Availability of SMEs for transition
- Analyze existing system documentation and kick off hands-on
- Take-up non critical work items and learn on the job

Impact to business commitments during Transition
- Re-prioritization of work requests in releases
- Modified the KT Plan to mitigate business impacts

Sensitivity Associated with existing team changes
- Proposed rebadging options
- Created awareness on the benefits of the model

KT Involving other vendor partners
- Involved clients in the KT status to monitor the KT progress
- Offshore to Offshore KT

Awareness & understanding of engagement models
- Developed & circulated Handbook on MTC & ITC
- Conducted extensive road shows & workshops

Stakeholders buy-in for change management
- Conducted Joint road shows / workshop to articulate benefits
- Develop confidence to prove the maturity of the relationship with metrics trends
What's the secret to transforming while still performing?

QA Best Practices
Implementation / Benefits
The Best Practices help QA Organizations to achieve increased efficiencies, and end-to-end quality Year on Year

**KM Framework**
- Centralized KR repository
- Standardized boot camp materials
- Path for up skilling the resources based on Knowledge Levels
- Created foundation to elevate QA resources in to other roles

**Core/ Flex Resourcing**
- Dedicated core team to meet fixed demands
- Flex team to meet dynamic staffing needs
- Optimized On/Off resourcing
- Sharing resource pools across LOBs

**Tools Standardization**
- Industry standard tools
- Standardized test management and automation tools
- Streamlined tools maturity and utilization

**Innovations**
- Conducted Innovation Campaigns
- Eliminated waste through Lean
- Rewards & Recognition for Ideas
- Idea generation methodology

**Automation Framework**
- Established dedicated Roadmap for each LOB
- Increased Reusability of scripts
- Minimal script maintenance effort
- Non Traditional Automation
- Metrics and Measures for Automation

**Best in Class (BIC) Metrics**
- Analyzed Industry Standards
- Consistent tracking and reporting
- Tier based metrics dashboards
- Strong governance on SLAs
- Continuous maturity progression
**BEST IN CLASS METRICS MANAGEMENT**
- Assess service maturity against industry benchmarks. Deliver optimal performance to align with the Client goals.
- Established Tiered based metrics with industry targets.

**PROCESS CONSISTENCY & MATURITY**
- Common process and tools framework across LOBs.
- Enables Continuous and consistent improvements.
- 4% throughput increase with process optimization.

**FOCUS ON OTHER EMERGING SERVICES**
- Conducted Mobility Workshop
- IVR Testing Capabilities
- Scalable Test lab with Browser/OS/Display configurations and adequate devices/tools.

**SHIFT — LEFT STRATEGY**
- Transform from defect detection to defect prevention.
- Piloting “Shift left” methods in NBV to help seed quality in early phases of SDLC.

**KNOWLEDGE RETENTION**
- Sound Knowledge Management Framework to tier resources based on knowledge levels.
- Mechanism to track and improve knowledge levels.

**INCREASED TEST COVERAGE**
- Regression Bed optimization to improve the quality of test coverage.
- Statistical Techniques adopted to maximize coverage while minimizing effort.
- Increased Test Effectiveness.

**ENvironments with high quality**
- Production Health Checks – seven days a week
- Automated build verification tests for strategic projects
- Tapping Integration testing to catch 20% of defects early.

**ITC — COST OPTIMIZATION**
- Risk Based Testing & Reusability of Test cases leveraged effectively across large programs.
- Early Automation Leveraged for Strategic projects.
- Up to 10% Cost savings for Large initiative programs.

**MTC — COST OPTIMIZATION**
- Enterprise Automation Roadmap to optimize QA spend.
- 20% YoY productivity gains.
- Increased operational efficiency.
Go forward Strategy

3 Building Blocks + 6 Transformation Themes = Transformation to a world leading QA Org...

- **Accelerate time to market**
  - 1. Integrated Automation
    - ✓ Early Automation across SDLC
    - ✓ Non Conventional Automation

- **Improve Quality**
  - 2. World Class Operating Model
    - ✓ Institutionalize and Enforce OLAs
    - ✓ Sustain Lean Implementation

- **Reduce Cost**
  - 3. Intelligent Test Delivery Platform
    - ✓ Enterprise wide Tool Strategy
    - ✓ Test Data Management
    - ✓ Integrated Metrics Management

- **User Advocacy**
  - 4. User Advocacy
    - ✓ E2E Business Process Testing
    - ✓ Knowledge Management
    - ✓ Elevate Testers as business users

- **Lifecycle Transformation**
  - 5. Lifecycle Transformation
    - ✓ Early Defect Detection
    - ✓ End to End Quality Management
    - ✓ QA to IT Cost commitment

- **Optimized and On-Demand Environments**
  - 6. Optimized and On-Demand Environments
    - ✓ Infrastructure/ Operational Readiness
    - ✓ Adequate and Robust Environments

... Key Outcomes

- Nimble and Efficient QA
- Higher Quality with lower cost
- Workforce Excellence
- Enhanced user experience
Q & A