HCL

CASE STUDY

BUSINESS
ASSURANCE &
TESTING

TRUE AND TESTED
TRANSFORMATION
WITH HCL'S TESTING COE

Centralization of testing services enables American leading casino and resort operating company to optimize and transform application portfolio and reduce cost of testing by 11%

LET'S TALK
APPLICATIONS

CUSTOMER DESCRIPTION

Client is a leading international developer of multi-use integrated resorts. Its resorts feature high-end accommodations, gaming and entertainment, convention and exhibition facilities, celebrity chef restaurants and clubs.

BUSINESS NEED

Client is establishing a Support Center ("GSC") based in Singapore to provide certain IT services to its properties spanning multiple locations in Las Vegas and two other locations. As a part of the company's strategic initiative, testing organization is to be centralized and moved to a shared service model. The key objectives of the customer included:

- Reducing operating costs over the term by at least 25% through labor arbitrage, productivity improvements and optimization in the areas of Application Development, Quality Assurance, Service Desk Support etc

- Improving time to market of new features and capabilities

- Improving service delivery capabilities , service performance and SLAs thus ultimately, improving end user customer satisfaction

- Achieve standardization of processes

- Enhance transparency and internal control

HCL'S APPROACH

Prior to HCL, software testing within the client organization was undefined and largely manual, the test environments were fragmented and planning was very limited.

HCL partnered with the client to institute a Testing Center of Excellence (TCoE) FLSL solutions by means of scheduling KT sessions on the various applications. On basis of the KT effectiveness, the program was gradually expanded across multiple locations in all the three client geographies. HCL also provided testing services in the areas of functional testing, SOA testing, device based testing, testing on Kiosk and load testing to the client.

Over a period of 18 months (Transition + Steady State), the scope of the Testing Center of Excellence expanded from:

- Functional testing to Regression testing, Mobile testing, Device testing and Performance testing. The TCoE will be expanded to perform automated regression testing to address the problem of inadequate regression test coverage due to reduced cycle time

- Testing on iSeries to .Net, Mobile devices, Gaming Slot machines, Marketing and Gaming Kiosks, POS terminals etc

- One location in one geography to multiple locations in all the three client geographies

CENTRALIZATION OF TESTING BUSINESS CRITICAL OPERATIONS

SETTING UP OF FOUNDATION LEVEL TCOE

HCL initiated the engagement by understanding business expectations and analyzing application landscape.

The transition complexity was understood and release plan was thoroughly studied in this phase.

As the next step towards setting up of foundation level TCoE, the below mentioned activities were performed:

- Set up transformation governance

- Organize demand management

- Pilot knowledge portal

- Define engagement dashboards

- Lean Implementation

- Standardize processes

- Setup value portal

- Define test environment process

- Optimize test tools

The Tools, Solution & Competency adopted in this phase are as below:

- Develop SME Development Framework

- Implement Requirement Ambiguity Testing

- Customize Test Factory in a Box

- Training Academy

- Core Flexi model

TCoE operationalization

Processes are centralized with group metrics in this phase. Testing is integrated into the lifecycle, processes are standardized and supported centrally, review gates and quality assurance are in place and continuous improvement initiatives are introduced. For measuring the performance, test metrics are gathered across the test organization, QA reviews and inspections become integral part of the process and automation is increased in the process. Cycle time reduction and productivity improvements are key objectives of this phase.

HCL customized and integrated QA process and work flows with HCL's proprietary test service platform ' Test Factory In a Box' (TFiB) in this phase, SLA's were re-base lined, Knowledge Management was shared and attempt was to Shift testing to left.

As the next step towards Operationalizing TCoE, the below mentioned activities were performed:

• Capture value added

• Fine tune communication & Reporting

• Measure & tune Horizontal services

• Centralize Demand Management

• Implement test environment monitoring and Tools as a service

The Tools, Solution & Competency adopted in this phase are as below:

• Implement SME Development Framework

• Optimize regression pack

• Implement TFiB

• Improving reusability

TCoE optimization

QA thought leadership is built and has an enterprise level influence. QA is driven by continuous improvement and metrics, technology and personnel who are largely centralized and there is widespread use of automation. Cost saving is key objective of this phase.

HCL performed continuous Improvement, fully operational TFiB and Testing as a Service was in place as a starting point to this phase.

The Tools, Solution & Competency adopted in this phase are as below:

• Right / Cross skilled team

• Tools driven Risk Based Testing

• Plan to implement regression Automation pack, script maintenance etc

IPS AND FRAMEWORKS ADOPTED

• **SME Development Framework** – Framework for skill based proficiency development and mapping of QA SMEs in business domain, technology, tools and processes.

• **NexGen framework** – Plan for NexGen Automation framework is being prepared to setup automation factory and fast track automation

• **Risk Based Testing** – RBT is based on MoSCoW approach (Must Test, Should Test, Could Test or Won't Test). It ensures maximum impact of testing with the available resources.

• **Requirement Ambiguity Testing** – is used to identify defects from the requirements phase itself.

• **Training Academy** – Testing and domain specific training programs to build a team of SMEs on various technical and functional areas.

• **Cost of Quality (COQ)** – CoQ approach allows client organizations to identify problem areas and monitor its progress in a measurable manner.

• **Core Flex Resourcing** – Using the HCL resource pool for the project in order to meet the uneven demand during test lifecycle.

BENEFITS

- The Testing Center of Excellence (TCoE) enabled the client to scale up existing testing services and offer new services with higher quality, shorter delivery time and reduced cost. Key benefits include:

Cost Savings

- HCL's TCoE helped client to reduce testing costs by 11% through resource optimization and productivity improvements. Further economies of scale led to decreasing incremental unit costs.

Improved Quality of Deliverables

- The TCoE led to improvements in quality of service through near-zero defect delivery through setting up TCoE processes. Over 99% defects were detected before the system went live.
- Improved quality of software led to higher customer satisfaction.

Scalable Management Approach

- The scalable team structure, governance mechanism and reusable processes were replicated across all the TCoE initiatives across the organization.

Enhanced productivity

- Reusable artifacts, knowledge assets and processed helped to improve team productivity. About 4% of the annual savings occurred via efficiency gains.
- Overall, the Testing Center of Excellence strategy enabled the client to achieve operational excellence and enhance business value. These contributed to quantifiable improvements in customer satisfaction levels.

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