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Assurant Health Case Study

Health Insurance Company implements software testing best practices from the international standards for the testing and quality assurance functions: CSTE and CSQA Common body of knowledge, to impart consistency across its software development life cycle phases and increase software quality control standards in its products.

Assurant Health faced with the need of implementing software quality control best practices into the execution phase of its software production line without impacting project's timelines or halting software operations to define, build and deploy quality assurance processes.

The Customer

Corporate Headquarters is located in Milwaukee, Wisconsin, and has operations offices in Minnesota, Idaho and Florida, as well as sales offices across the country. Assurant Health has become a leading developer and provider of Individual Medical, Small Group, Short Term and Student Health insurance products and provides health insurance coverage for more than one million people nationwide. They are the oldest national health insurer in the United States and over the decades, have built a solid reputation for high-quality products, stability and financial strength. .

Business Need

The client needed to inject software testing best practices at integration points in selected projects during the execution phase of its software development life cycle without disrupting execution phases or impacting existing project's timelines. Assurant Health philosophy relied on "Adopting from execution", meaning that only those testing best practices providing return on investment would be implemented as a short term solution, and eventually depending on the impact in the organization those would be considered to be part as its global infrastructure in the long term.

The Challenges

- Projects focus on budget, schedule and timeline leaving quality at the end.
- Ad hoc software development life cycle methodology
- Immature climate of trust
- Immature QA processes
- Immature communication channels
- Projects operating independently with different approaches
- Lack of flexibility to move deadlines in software development infrastructure
- Informal unit testing
- Informal requirements
- Project scope constantly changing
- Lack of configuration management

Solution - Approach

Softtek partnered with the client to define a software testing assessment and establish a quantitative baseline of the current status of the testing organization using QAI's world class software testing model as a benchmark and build an action plan to strategically inject testing best practices at integration points. CSQA Common Body of knowledge was used to define and build the assessment while specific CSTE skill categories were used to select the best practices addressed in the action plan.

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This approach was implemented in March 2007 ending in August 2007. The assessment's action plan was shared with senior management to gain buy-in and initiate momentum in the organization.

The approach to define the software testing assessment involved the following phases and tasks:

Phases	Tasks
Determine the current status of testing capabilities	• Building Assessment Team • Completing Assessment Questionnaires • Building Kiviatt Chart • Assessing Results

Establishing improvement goals	• Drivers -
	  • Test Planning
	  • Test Training
	  • Test Efficiency
	  • Quality Control
	  • Management Support for test
	  • Test Process
	  • Test Tools
	  • User Satisfaction

Developing an action plan to achieve testing goals	Three Phases of quality function maturation

Click here to review the detailed action plan (Approach) for this Case Study.
The action plan to inject testing best practices focused on the following drivers and action items:

Drivers	Action Items
Test Planning (*CSTE – Skill Category 4 - Test Planning*)	• Define the test planning process • Build test plan template • Implement test planning process into existing testing process
Test Training (*CSQA – Skill Category 2 – Quality Leadership / Leadership Concepts*)	• Define awareness program • Define training program • Build awareness and training material • Implement awareness and training program
Test Efficiency (*CSQA – Skill Category 7 – Quality Control Practices / Developing Testing Methodologies*)	• Define testing methodology • Define testing vocabulary • Define test strategy process • Build test strategy templates • Build web site to centralize testing life cycle processes • Implement testing methodology, test vocabulary, test strategy

Quality Control (*CSTE – Skill Categories 4,5,6 – Test Planning, Executing the test plan, Test Reporting Process. CSQA – Skill Category 8 – Metrics And Measurement*)	• Define the processes of the testing life cycle:
	  o Risk Analysis
	  o Test Planning
	  o Test Design

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	◦ Test Execution
	    ◦ Defect Tracking
	    ◦ Metrics
	        ▪ Define a Measurement Program
	    ◦ Test Reporting
	• Build respective templates for testing life cycle processes

Management Support for test (*CSTE – Skill Category 2 – Build The Test Environment*)	• Define a test policy • Implement a test policy • Implement testing function
Test Process (CSQA – Skill Category 5 – Quality Planning /	• Establishing testing function
Test Tools (*CSQA - Skill Category 4 – Quality Assurance/ Quality Tools*)	• Define QA toolbox • Implement QA toolbox

To review the detailed action plan (Approach) for this case study read the complete solution at: http://www.msqaa.org/Case_Studies.html

Benefits

- Assurant Health understood the importance and benefits in the long term of establishing a quality assurance infrastructure before implementing any quality control function.
- Assurant Health witnessed the efficiency of adopting CSTE and CSQA best practices, resulting in QA director from Assurant Health attending two conferences sponsored by QAI -
  - Assurant Health QA director participated in 28th Annual International Software Testing Conference in Orlando Florida 2007 and
  - QUEST Chicago 2008
- Systematic approach to testing maximized the quality of in-house applications.
- The adoption of a measurement program added value to the testing process at senior management level.