Case Study: Methodology for Requirements Engineering

Disciplined Approach Uncovers Unexpected Root Cause of Challenges; Customized Roadmap and Tailored Methodologies Drive Future Success.

The Requirements Engineering Team at a leading health care company located in upstate New York was the subject of negative feedback from upstream and downstream requirements stakeholders. Leveraging Technology led the team through a process that identified and corrected the underlying root cause.

The Situation

Despite the existence of a large, experienced team, a general step-by-step requirements engineering process, and a fairly robust requirements tool, stakeholders complained about the timeliness and quality of requirements deliverables (too long, unreadable, incomplete, redundant, unclear) and the time wasted during requirements elicitation sessions. The client perceived that the root cause of organizational dysfunction was the overall skill level of her team and a lack of tools.

The Solution

To correct the situation, the client tapped members of the Leveraging Technology Business Architecture Team, who were already onsite for a related engagement. Leveraging Technology applied its maturity assessment methodology to measure the team’s overall competencies across four central elements: people, methods, practices and tools. The findings indicated that analyst skill levels were actually high for the type of company. Moreover, the team seemed to follow a consistent and somewhat mature process in the delivery of requirements.

The key issue revealed through the assessment was the lack of consistent methodologies that the team could scale and flex to meet the needs of the most challenging and riskiest project types.

Leveraging Technology then developed a customized roadmap for the client that strategically addressed the weaknesses revealed in the assessment. Leveraging Technology targeted the client’s highest-profile and riskiest project types and helped the client develop requirements methodologies to address their gaps.
The actions taken to improve future requirements include:

- Building stakeholder ownership by facilitating participation of a cross-functional group of customers involved in different parts of the client’s Software Development Life Cycle process.
- Identifying Commercial-Off-The-Shelf (COTS) project requirements and the delivery of User Interface (UI) requirements deliverables as the two solution patterns that historically had the highest level of risk in terms of failure to implement and deliver expected functionality.
- Creating standards and examples of logical data models, context diagrams, state-transition diagrams, business and systems use cases, and system interaction models.
- Counseling the client on transitioning use cases to graphical representations to ensure logical flow and eliminate confusion.

The Results

The company’s Requirements Engineering team is now equipped with standard tools that enable it to enhance quality while shortening the time to produce requirements deliverables. Downstream consumers can now anticipate and train their own staff on the common interpretation of artifacts within the deliverables. This significantly lessens the time required for solution design, development, testing and implementation -- and delivers a product much more closely aligned to what the business anticipates.

By engaging Leveraging Technology and its Business Architecture expertise, the leadership of the Requirements Engineering Team was able to obtain a clear assessment of the situation and map out an action plan that refocused their time and resources and made the greatest impact on the organization's maturity where it matters most.

About Leveraging Technology

We are a business consulting firm that fully understands how all aspects of the information technology lifecycle can impact business results. We employ a practical approach to transforming the design and architecture of your information technology environment to drive businesses performance.

Contact

To learn more about this case, or inquire about a Requirements Engineering training session for your team, contact Sandy Kleinberg, Practice Lead, Business Architecture skleinberg@leveragingtechnology.com or 585.454.4250 x145 or read the fact sheet.