ERI Essentials

Governance

As a start-up, ERI was able to operate tactically; growth brought about a new level of product and market complexity. This required a more thoughtful, strategic approach, where projects are selected and approved based on company strategy, rather than on engineering or development priorities. Control of project start and focus was critical to reorienting ERI to be responsive to the market, rather than responsive to tactical issues.

SDLC

With fewer products, ad-hoc approaches were manageable and tactically efficient; as the number of products and software releases grew, the process of managing development became more difficult. A more formal software development lifecycle provided controls and measures, and a means of predicting delivery dates that was critical to managing to market opportunities.

Decision Gates

Initiating a project is a critical business decision, committing resources and funding to the exclusion of other projects; with limited resources available, ERI needed to be able to control project execution at key decision points in the product development and software development lifecycle.

Project Management Office

Plans are one thing; execution is another. ERI needed to coordinate projects across organizations and product lines, to manage dependencies, to formally identify and manage risks, and to track the portfolio of projects across the organization.

Performance Management

IT ROI is primarily a function of productivity, which is a measure of efficiency; ERI needed to be able to measure SDLC effectiveness in order to know where to invest limited resources in process and capability improvements.

SDLC and PMO at Sycamore Networks

Eastern Research (acquired by Sycamore Networks) was a mid-size manufacturer of telecommunications hardware in Morristown, NJ, offering a range of Ethernet and optical switching equipment.

Opportunity

Having experienced rapid growth as a start-up, ERI was challenged with product quality, predictability, and product cost issues that were eroding market position. Introduction of a new generation optical switch brought about a "tipping point" where a new approach was required.

Approach

SIBRIDGE was engaged to perform a SWOT analysis and to develop solutions addressing lifecycle issues, which included governance, management, and development approaches.

Results

- Definition and implementation of a Product Lifecycle process, encompassing Product Planning and Architecture.
- Definition and implementation of a new Software Development Lifecycle (SDLC), identifying processes, roles, and performance measurements.
- Better control of spending and schedules
- More predictable dates and costs
- Emphasis on quality, repeatability, scalability, and discipline.
- Establishment of a Project Management Office and supporting processes, focusing the organization on governance and orchestrating activities across organizational boundaries.

SDLC Benefits at ERI

- **Process Phases and Milestones** – Project phases provide a vehicle for grouping and focusing resources on specific activities in the life-cycle; milestones provided a vehicle for measuring project health.

- **Approvals and decision gates** – financial, scheduling and resource commitments are made at specific decision points in the process, rather than ad-hoc or arbitrarily, providing a means of dynamically managing and redirecting resources to meet market needs.

- **Process Steps and Tasks** – work is broken down into well-defined, sequenced units, with emphases on quality, scope management, and re-use; projects can be estimated against known work steps and task scope.

- **Work products and Tools** – each task produces work products, and may consume work products from other steps or tasks. Individuals with specific skill-sets are managed as resource pools, and tools are standardized, preventing an explosion of non-reusable skills and artifacts.

- **Roles** – key contributor roles (System Engineers, Architects, Developers, etc.) are defined and managed against known task and work-product requirements.