

Transformation Life Cycle (TLC) Case Study

National Institutes of Health

Optimizing Warehouse and Distribution Functions with a Holistic Approach

When its Enterprise Resource Planning (ERP) implementation went awry, The National Institutes of Health (NIH) took a closer look at the plan. What it found was a misalignment of technology, operational processes, and staff knowledge.

NIH is the steward of medical and behavioral research for the nation. An initial attempt to improve warehouse and distribution functions with new technology did not have the desired effect; scientists and researchers were still not receiving the supplies needed to complete their research efforts. It was critical for NIH to implement some major changes and steer the ERP implementation back on track, so that its scientists and researchers could continue making critical medical discoveries that help save lives.

“NIH learned this was more than just technology refresh.”

Robin Portman, Booz Allen Hamilton Vice President

The improvements NIH had made to the warehouse and distribution functions were just a part of the overall effort to fully modernize administrative and research support processes. But like many organizations, NIH had launched a technology-led deployment without fully considering the impacts it would have on people and processes. Once it became clear that the initial implementation was not solving the problem of distribution backlogs, the organization refocused its efforts and took a holistic approach to the problem. By taking into account the interplay between people, process, and technology—the key elements of a

successful transformation—NIH was able to restore productivity levels and efficiently process customer orders.

NIH Overview

NIH employs more than 18,000 people across 27 institutes and centers whose primary goal is to acquire new knowledge to help prevent, detect, diagnose, and treat disease and disability, from the rarest genetic disorder to the common cold. The central distribution facility supports scientists and researchers throughout the organization and stocks approximately 3,500 unique products. The facility provides the centers with everything from scientific research supplies to animal feed and bedding to office supplies.

The number of customers the facility serves may be modest, but the mission of the customers is not. NIH plays a vital role in advancing biomedical research to improve health on a national scale, and its research impacts all segments of the population—children, seniors, minorities, men, and women. Without a quick, reliable method for receiving needed supplies, the core mission of the organization is jeopardized.

Challenge and Vision

After the initial ERP implementation, NIH experienced unforeseen consequences: a decrease in productivity levels, a rise in back-orders, and ultimately a crisis of confidence within the NIH research community. Research efforts were slowed because scientists were not receiving basic and vital supplies. Nonetheless, the NIH vision remained steadfast: modernize the purchasing, warehouse, and internal distribution technology platform and roll out a common set of processes that leverage organizational best practices.

Solution

Working with Booz Allen Hamilton, a global strategy and technology consulting firm, NIH was able to re-align its organizational processes to the new system, while minimizing the impact on staff members, who had faced a steep learning curve after the initial implementation as they learned how to successfully navigate the new operating environment.

“NIH was dedicated to achieving outstanding results for its customers.”

Tom Keith, NIH Director Division of Logistics Services

The approach NIH used to accomplish this was Booz Allen’s holistic Transformation Life Cycle (TLC), which focuses on several critical and interdependent elements of change—people, process, and technology—to stabilize the system and optimize the technology to realize full value. The steps include identifying root causes, matching the technology to business processes, identifying and correcting data integrity issues, providing standard operating procedures, training and supporting end users, tracking business performance, and establishing continuous improvement initiatives.

- **Technology.** NIH implemented Prism Purchasing and Oracle Warehouse Management with the goal of integrating systems and data to support these critical business processes. NIH also established a relationship with the Defense Logistics Agency (DLA) to streamline its requisition and purchasing process, provide greater purchasing power, shorten lead times, and enable a broader product selection. This strategic business alignment allowed NIH’s Division of Logistics Services to offer more products at a lower cost, while reducing inventory levels within its warehouse operation.
- **Business Processes.** Cross-functional business integration was missing from the original technology-led deployment, leaving the new system unsupported. To rectify this situation, the warehouse, item management, and purchasing business processes were reengineered and new business processes were created. For example: the requisition to purchase order process was revamped to streamline fulfillment, reduce the administrative lead times, and provide a set of quality control steps to ensure more accurate order creation.

- **People.** For the transformation to be effective, staff needed new knowledge, skills, and abilities. All users within NIH were trained on the new software and on the related business processes. This training was delivered through a classroom-style instruction setting and one-on-one tutoring.

Implementing the Transformation

NIH chose a four-phased approach to transform the ERP implementation—configuration analysis, conversion clean-up, user training, and business process redesign. To ensure it was focusing on the right issues, NIH first performed a Root Cause Analysis, which revealed inconsistencies in the initial configuration process. Working with Booz Allen, NIH rapidly identified, addressed, and resolved these inconsistencies, which in turn enabled NIH staff to more appropriately support requisitioning, purchasing, and warehouse management. The organization also discovered that all its data had not converted properly as a result of the initial data conversion, and in fact, some had not converted at all. All sides worked diligently to repair the unconverted data and add it into the database, which then provided the best picture to NIH staff of its inventory position. In addition, staff who used the new system were trained to better support customer demand. Lastly, business processes were redesigned to streamline the methods through which products are purchased, stored, and distributed to the customers within the centers.

“To truly realize the value of the ERP system, all aspects of the business transformation needed to be addressed to produce accurate actionable data.”

Robin Portman, Booz Allen Hamilton Vice President

Results

As of November 2007, the Warehousing and Distribution implementation is nearly complete, with the last errant transactions awaiting correction, and the remaining new business processes ready to be implemented. By taking a holistic approach and addressing several crucial dimensions of change—people, process, and technology—NIH achieved the following results:

- Warehouse productivity returned to pre-implementation levels.

- System configuration and data integrity issues have been corrected and orders are being processed accurately and efficiently.
- Purchasing and distribution processes have been streamlined.
- Users have been properly trained on the new purchasing system.
- Customer back-orders have been reduced by more than 80 percent and are now approaching pre-ERP implementation levels.

Results continue to be realized on a weekly basis, and pre-deployment numbers are now in close view. For some at NIH, the term “valley of despair” marked the period during which the old way of doing things was abandoned, and users began dealing with the unfamiliar new way. NIH wanted to make this valley as shallow and short as pos-

sible to realize the value of the ERP implementation more quickly.

It achieved this goal by addressing the transformation from all directions, not simply from a technology upgrade perspective.

“Now that the performance of NIH’s distribution center has returned to pre-conversion levels, they can work toward more strategic supply chain transformation objectives.”

Eric Michlowitz, Booz Allen Hamilton Senior Associate

To learn more about Booz Allen’s Transformation Life Cycle Approach, visit www.boozallen.com/tlc.

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