



Preceding Software Selection with Rapid Process Improvements

Typical implementation of new information systems start by mapping out potential vendors and software solutions. The process continues with the identification of prime change-worthy features when moving into the new software and focuses on addressing key shortcomings of the existing system. A well renowned medical center (and third largest general hospital in the United States) had a different vision. Instead of perpetuating sub-optimal processes into the new systems, the hospital wanted to reengineer business processes prior to selecting software solutions and engaging in its implementation. The hospital then engaged Tefen to help with the process redesign and software selection of their case management solution.

Tefen, in collaboration with a hospital team comprised of case managers, IT specialists, and senior management, evaluated the current state of the major case management processes, identified opportunities for improvement in effectiveness and efficiency, and developed future state processes. In addition to the development of future state processes, Tefen created the operational software requirements for the next-generation case management system. Finally, Tefen facilitated the vendor evaluation and selection process using pair-wise comparison methodology to determine the most appropriate software vendor.

Challenge

The facility's case management system faced several challenges, including difficulties in supporting current operations due to system inflexibility, invisibility of data, and problems supporting necessary staff communication. Another challenge stemmed from the fact that there were limited capabilities for case management to support future initiatives in the continuum of patient care, and several unlinked systems were used for that purpose. Furthermore, there were major challenges with determining the assignment of a particular patient to a case manager, which resulted in inefficiencies in communication. The system did not produce manageable operational metrics that could be used to optimize the patient management. Shift-to-shift hand-offs, specifically during weekends, were not adequately supported by the system, which in-turn resulted in manual tracking and lost information.

All aforementioned challenges resulted in inefficiency of case management staff, a significant amount of non-value added administrative work, daily setup time for the case managers, and re-transcription of information. Data accuracy issues, increased length of stay, and sub-optimal care coordination throughout the continuum also emerged from these inefficiencies.

How Tefen Helped

Over a three week period, a series of process mapping sessions were conducted to identify the current state issues, map the processes, and identify the system interfaces. The approach to optimize the core processes that would be enabled in the future state was to leverage the internal knowledge of the case managers, IT staff, and case management leadership as well as the historical data. A data analysis regimen focusing on identifying the volume of each of these processes was used in conjunction with the mapping process.

After analyzing the key processes, Lean techniques were used to identify ways to improve these processes by reducing non-value added activities, reducing rework and manual processes, and reducing process variability in the future state. Future-state design leveraged capabilities available in the market that would, for example, give case managers a detailed and prioritized case manager work-list that would automatically prompt required activities. This will dramatically increase case manager workload organization and reduce daily set up time. The future-state process design drove the requirement for the new software. To document this, a comprehensive functional requirement specification was

developed, capturing current-state and future-state value stream maps, field, reports, Key Performance Indicators (KPIs), and a set of other aspects to be incorporated into the new information system.

The future-state processes served as a starting point for the software evaluation. Potential vendors and software solutions were evaluated based on their ability to meet the new requirements. Detailed scripts were created to assess the compatibility of the various solutions to the hospital's future-state. To facilitate this process, Tefen introduced a structured selection process that harnessed the power of the pair-wise comparison method and gap analysis to identify the optimal decision. Software alternatives were evaluated along seven selection criteria that were identified with the user group forums. As part of the optimal vendor selection, robustness of the decision was analyzed by reviewing the sensitivity to criteria weightings and focus group preferences. As a result of conducting this significant exercise, the medical center's case management leadership was confident in making the right decision. Moreover, the sensitivity analysis revealed areas for improvement even for the selected solution, allowing additional improvements to be pursued.

Performance Excellence Delivered

Upon completion of this interactive process, the team created ideal future state operational requirements, including fields, templates, reports, and metrics. Selection of the prominent software solution became clear and complete.

Tefen ultimately helped the client by identifying an opportunity for the reduction or reallocation of 15-20% of the case management workforce. Some improvements were deemed implementable independent from replacement of information systems, while other improvements were dependent upon the implementation of the new system.

About Tefen

Tefen is an international management consulting firm, committed to improving overall operational effectiveness for Fortune 500 companies around the world. The firm's main areas of focus include operations excellence, manufacturing, quality, customer service, research and development and supply chain management. With its "hands-on" approach philosophy, the company has achieved tremendous success in delivering quantifiable and value-driven results for its clients in a variety of industries, including healthcare, life sciences, general manufacturing, high-tech and financial services. All of Tefen's support programs are ISO 9001 certified. Tefen currently employs over 300 professionals worldwide.

For additional information, please contact:

Yvonne Liu, Marketing Manager

Tefen USA

(646) 652-8275

yliu@tefen.com

www.tefen.com

