The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
The Boeing Company

Organization URL:
www.boeing.com

Project Name:
Transportation Navigator System

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

The project was designed to improve the overall operation and efficiency of the transportation scheduling process the American Cancer Society uses to schedule rides for their patients to and from chemotherapy treatments. The problem that ACS staff and volunteers were facing was an inefficient scheduling process topped with proprietary data that volunteers needed to have only limited access to. The end goal of the project was for ACS staff and volunteers to focus their efforts on more critical tasks such as spending more time with cancer patients, developing partnerships, and working on projects to further improve their programs. Prior to the implementation of the Transportation Navigator System, ACS staff and volunteers spent approximately 26.6 hours per week scheduling rides. After the implementation of our system, due to the automation, centralized data, user-friendly application, ACS staff and volunteers spent a mere 8.05 hours/week scheduling rides. Our system eliminated 18.55 hours per week from the scheduling process, for a total decrease of 69% man-power per week.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

The purpose of this project was to eliminate time from ACS's manual, paper-pushing, data-duplicating, copying and pasting process to a web application, called the Transportation Navigator System, that optimizes and assists ACS with the process they use to schedule rides for patients to and from doctor appointments. This web portal allows ACS staff and volunteers to access the scheduling information securely from virtually anywhere they have an Internet connection. With this system, all employees and volunteers have the most current information at all times and can schedule rides efficiently. Google Maps is a major integration in this application, as it provides a visual and calculation for Road Coordinators to schedule rides for patients to determine which volunteer driver lives closest to the patient. Additionally, it is programmed to show the Road Coordinator which driver has an existing relationship with the patient to make sure that the patient is comfortable with their driver. Throughout the life of the project, we were faced with a huge technical challenge: Boeing developed the application from scratch within Boeing's development environment and then had to migrate to ACS's production environment. Because our in-house enterprise systems differed, we worked closely with developers on both sides to ensure a seamless transition. We constantly tested and retested the system for every change or addition made. One other technical challenge we encountered was acquiring a license for an API mapping service to support the mapping portion of the scheduling system. We ran into both license and capacity issues. Initially the scheduling system would only be used in the Illinois division of ACS, but due to its high productivity and simple UI, ACS plans to roll it out throughout the enterprise.

Please list the specific humanitarian benefits the project has yielded so far.

Since the implementation of our application, there has been a significant reduction to the amount of administrative time it takes to schedule rides for patients, thus allowing ACS staff and volunteers to spend time saved toward more strategic projects and time with cancer patients. With the implementation of our application, a total of 18.55 hours per week was eliminated from the overall transportation scheduling process. That means we not only reduced the overall weekly process by 69%, but we gave the ACS employees and their volunteers back over 2 working days per week, which they can now spend concentrating on other patient services. Due to the time savings, ACS has been able to increase the number of rides from 17,000 to 18,500 per quarter for patients who will ultimately get the treatment they need to fight cancer. Additionally, the number of patients who ACS is able to take in increased from 250 to 372 patients. Since the number of rides ACS is able to provide increased, the cost on paid transportation such as cabs, public transportation, and parking fees decreased by 24.5%.

Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

The purpose of this product was two-fold: The first, and most important goal, was implementing an application that has significantly reduced the amount of administrative time it takes to schedule rides for patients, thus allowing ACS staff and volunteers to spend time saved towards more strategic projects and time with cancer patients. Secondly, this was a development opportunity for ACS and Boeing employees. By working with knowledgeable IT employees, the ACS employees were able to realize the opportunity to take advantage of innovative technology to improve a manual process. Demonstration of this integration capability has opened ACS employees' eyes for other potential opportunities for future improvements to operate more efficiently and productively. This is especially important as they are a non-profit, so any time and money saved is critical. Additionally, new Boeing employees developed their skills in running an agile, web development project. Ultimately, the Boeing Company and the American Cancer Society are building a stronger relationship to help save lives and create more birthdays.