The Computerworld Honors Program

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Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
New Hampshire Department of Health and Human Services (DHHS)

Organization URL:
http://www.dhhs.nh.gov/

Project Name:
New Hampshire Electronic Application System (EASY)

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

A weakened economy has led to significant cuts for the Department of Health and Human Services while the demand for services increases. To meet budget cut expectations, plans have been enacted to move from "brick and mortar" to virtual service delivery. Engaging clients through the web is a critical enabler for service modernization and improved workforce management. The department is shifting from a business model that relied on a traditional approach using "dedicated store fronts" to a model where clients and case workers can engage from a multitude of service locations, including home and community settings. This offers greater flexibility to clients and supports streamlined operations. With the shift away from paper, the physical location of case workers is no longer constrained and specialized support centers are optimizing task completion and workload balancing across physical locations. The commercial sector has created a new level of client expectations for online service delivery. The primary goal of this project was to extend and enhance commercial sector best practices for web-based customer service while simultaneously reducing the cost of case management with automated data collection by "going green" with digital content delivery. The department is currently consolidating offices despite increased applications and caseloads, with estimated savings of over $2.1M through fiscal year 2013. Additionally, in the first six months alone, with limited marketing, nearly 20% of cases have established accounts for online case management. For clients who have elected to "go green," 97% of all notices have been viewed within 3 days. Based on the current trend line, New

Hampshire will dramatically slash its postage and mailroom budgets with the added benefit of being environmentally conscientious.

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.

EASY is built using modern architecture principles while leveraging the existing legacy infrastructure. This includes running the Apache web server and the WebSphere application server on z/OS using the specialty engines (zIIPS). The zIIP is a co-processor in z/OS, which is generally 3 to 5 times more powerful than the general processor and it is very cost-effective. Leveraging enhanced mainframe technology allows for consolidated operations and staffing efficiencies across legacy and web applications. The application uses a Model-View-Controller (MVC) architecture, which isolates the business layer (application logic) from the presentation layer (user interface), allowing the flexibility to replace any layer independently without affecting the entire application. The business layer was built using Enterprise JavaBeans (EJBs) and secured web services. The EJBs hold the business logic and handle elements such as persistence and transactional integrity, while the secured web services use JAX-WS technology to present real-time information to the clients. The existing CICS Transaction Server acts as a service provider for the web services, which read the data from the legacy eligibility system, New HEIGHTS. The Triple DES (3DES) encryption is being used to encrypt sensitive information while it is transmitted over untrusted networks. The online notices are created in a PDF format and stored in a z/OS Unix system, secured by IBM RACF security. The New HEIGHTS batch process uses SMTP protocol to send emails notifying the client that new notices have been posted to their accounts. When SMTP detects an error condition (e.g., when an email is attempted to be delivered to an address that does not exist), the client is automatically set to receive notices on paper and any missed notices are automatically regenerated. In addition, a non-delivery report is generated and sent for manual review.

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

This project included numerous features to improve service delivery and client self-sufficiency. The client-facing features include the ability to create secure, online accounts from which they can screen, apply, check application/benefit/recertification status and view their personalized notices and correspondence. The worker-facing features include enhanced workflow to improve the efficiency of case managers and business intelligence reporting to facilitate continuous improvement. The benefits of the project include the following: enables potential clients, their families and advocates to quickly "screen" for eligibility for human services, helping to provide the right services at the right time without delay; streamlines the application process, increasing the efficiency and accuracy of application processing and allowing more eligible families in New Hampshire to apply for and receive the benefits they deserve; allows applications to be completed online, enabling clients to overcome transportation barriers and submit applications even when the district office is not open, and also reduces district office traffic; enables existing clients to create online accounts, reducing district office traffic as clients are more self-sufficient and require less support from their caseworkers; enhances the document imaging solution to capture electronic verifications and automatically import them, resulting in a more efficient verification process; reduces district office traffic and workload per case, helping caseworkers reduce human errors and to place more attention on difficult cases; reduces district office traffic, which has created shorter lines and less waiting time for clients who choose to access services at their local district office; increases self-service usage, enabling our partners to conduct more effective outreach in community settings like food pantries, community agencies, town welfare offices, fuel assistance offices and WIC offices; enables agency to go green, which has enhanced the environmental footprint of DHHS.

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 individuals who have benefited most from NH EASY are the citizens of New Hampshire. As part of implementing NH EASY, we implemented an online survey tool to collect feedback regarding how we could continue to improve. User feedback to date has been overwhelmingly positive as is evidenced by the following quotes: "This is the easiest web site I have ever used!" "Very user-friendly, love the security, thank you." "Clear and concise with exactly what's needed and not filled with too much information. Loved it! First state/government web site that I've seen that isn't confusing and redundant." "Easier than standing in line and waiting in the district office, sometimes for hours." "It enabled me to do everything from home with my disability and inability to drive." "I feel that this system will help people that are using State Assistance to get on their feet and may reduce the embarrassment that is sometimes experienced when you are in poverty." "An extremely helpful and expeditious way to apply for assistance." "The layout of the application is great, along with how smooth the process is." "I find the online NH EASY so easy to read and understand! Love it." "Very helpful tool to get my benefits information." "It makes it so easy to look up things about my case." "If I need any info from my case, I just go to the website and there it is; don't need to bother any case worker. I like it a lot!" "I absolutely love the ability to go completely green." "Without a doubt the most convenient way of checking decisions and notifications." "You get to see the paperwork and notices MUCH faster!" "It's going to help the environment so much with not wasting paper or gas."