



# The Computerworld Honors Program

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## Final Copy of Case Study

**YEAR:**  
*2012*

**STATUS:**  
*Laureate*

**Organization:**  
Michigan Department of Human Services

**Organization URL:**  
[michigan.gov/dhs](http://michigan.gov/dhs)

**Project Name:**  
MI Bridges Expansion

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

In July 2009, Michigan's economy was in devastation. The unemployment rate topped 15%, the highest jobless rate for a state since 1984. To further complicate matters, unemployment benefits were ending for thousands of citizens, putting them into further peril. This was also an unprecedented time for the State of Michigan Department of Human Services (DHS), which faced extraordinary challenges positioning itself to be able to provide benefits to a large population of Michigan. DHS saw an opportunity to capitalize on the use of technology by implementing an online application, MI Bridges, that presented citizens and community partners with a brand-new avenue to access DHS programs and apply for assistance online 24 hours a day, 7 days a week. MI Bridges soon became one of the most visited sites on the state of Michigan's website, and provided citizens an opportunity to "get online" and not "in line" at a time when the number of Food Assistance recipients in Michigan nearly doubled. Launched in August 2009, MI Bridges initially allowed clients to check their Food Assistance benefits both online and via telephone via an interactive voice response (IVR) system, as well as apply for benefits and report changes. In May 2010, MI Bridges was subsequently expanded to support the Low Income Home Energy Assistance Program (LIHEAP). As of December 2011, over half a million Food Assistance and LIHEAP applications have been received online. One in four Food Assistance applications received today is submitted online. In December 2011, on the heels of its successes with the Food Assistance and LIHEAP programs, MI Bridges was further expanded to allow citizens to

apply for Medical Assistance, Cash Assistance, Day Care Assistance, and all aspects of State Emergency Relief.

**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.**

In September, Deloitte extended the existing MI Bridges system as part of the self-service expansion project. MI Bridges is a J2EE implementation containing an Oracle 11g persistence layer. Its architecture logically separates the application into three architecturally independent tiers (Presentation, Business and Persistence). All communications between the presentation layer and the persistence layer are handled by a FAST4J-based middleware framework that Deloitte developed for our clients. With the expansion of MI Bridges to include new functionality to cater to additional programs, DHS expected that the volume of traffic into MI Bridges would triple over the course of the implementation. This posed a significant challenge for Deloitte to scale an existing application while continuing to expand its functionality to meet new demands. As part of the initiative, Deloitte conducted a comprehensive current-state analysis of the current application, its middleware, and database, analyzed current and projected usage patterns to create a performance improvement plan for the expanded solution. Additionally, Deloitte leveraged Oracle's data caching features to reduce disk access, which further improved transaction timings. On the application side, tuning of SQLs and implementing more efficient methodologies for establishing database connections as well as switching to OLTP transactions allowed for a leaner application. Today, with online traffic exceeding 6,000 applications a day and over 10,000 hits received, the Bridges application and database utilization consistently hovers below 5%, which is considered exceptional performance. Enhancements such as these have positioned MI Bridges to take on larger volumes as part of any future initiatives that the department may consider.

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

MI Bridges has expanded customer service by allowing DHS staff to quickly and effectively determine eligibility from applications and requests received online. Providing DHS services online has helped the agency to broaden their services footprint across the state using innovative channels, saving valuable time and resources that can be used in other areas of need. When surveyed, clients have indicated a 90 percent preference for online applications when compared to paper applications. Clients can apply for benefits and upload required supporting documents at any time, on any computer with Internet access. If they are employed, citizens wouldn't have to miss work to come to the office, thus eliminating the stigma associated with "waiting in line" at the local office. Furthermore, community-based organizations, i.e., hospitals and domestic violence shelters, would also be able to easily access MI Bridges to assist clients with applying for or inquiring about benefits, saving families time and effort when they are the most vulnerable.

**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 W.K. Kellogg Foundation supported the MI Bridges expansion in an effort to provide a platform for families and community agencies to access benefits while fostering a sense of dignity and independence. According to James Hogan, Information Officer with Michigan's Department of Technology, Management & Budget: "When I presented MI Bridges to the foundation partners, not only did the project exceed expectations, but they were "doing cartwheels" due to the fantastic service brought to the citizens of Michigan." Michigan is coordinating outreach activities for MI Bridges with the Michigan Benefit Access Initiative (MBAI) partners, Local Office

Community Resource Coordinators and Voices for Action. MBI is a public-private partnership working to streamline and increase online access to benefits for Michigan's low-income citizens and is a key component of DHS's commitment to move forward aggressively to use technology to meet customers where they are. There are currently 605 Community Partners registered in MI Bridges to assist Michigan's current and new clients with the MI Bridges application. These partners range from hospitals, senior centers, food banks, churches, low-income housing associations, the Salvation Army, colleges, shelters and many others too numerous to list in all counties in the State of Michigan.