eJOBS: UTAH'S ONLINE JOB CONNECTION

EXECUTIVE SUMMARY

The Utah Department of Workforce Services seeks to provide employment and support services for its customers to improve their economic opportunities. One of the ways they accomplish this is through an employment exchange system that benefits both employers and job seekers.

eJobs (jobs.utah.gov) is the Workforce Services' Web site designed to help employers discover qualified job seekers, as well as assist job seekers in locating statewide employment opportunities, all free of charge. First developed in 1999, the Web site has evolved to meet Utah's changing employment needs.

The Web site has two sections, one for employers, and one for job seekers. Both types of customers login on a common page and are directed to the appropriate account based on their user name and password. A Help Desk is available with expert advice and fixes, generally responding within 24 hours.

The employer side of the Web site allows employers to create several individual accounts under their Federal Employee Identification Number (FEIN) so that different HR personnel can manage a variety of job opportunities, commonly called Job Orders. The employer can create a Job Order, copy an old Job Order for reuse, search for job seekers who meet the minimum qualifications, and close out a Job Order if the employer is satisfied with the current pool of applicants. By sorting the qualified job seekers into predefined categories, the employer can filter those candidates who are most qualified and contact them to set up interviews. Currently, the system has a pool of over 80,000 job seekers from which to choose, and employers have requested contact information nearly 475,000 times in a five month period.

Using eJobs, job seekers are now able to perform a multitude of tasks that they previously could not do when using the old job board system. Job seekers can enter their information online and manage their own profile, making it available for employers to review. They can also search for jobs using advanced search criteria, such as jobs within a specific county, within a specified mile radius of a zip code, with particular ONET titles, or by utilizing named searches that they have saved on their profile. Currently, there are nearly 3,000 employer contacts registered, with postings of over 30,000 jobs since January 2007. On average, there are 13,000 jobs posted each day for job seekers to consider, and those job seekers have received over 700,000 job referrals in the past five months. This is particularly interesting, considering that Utah has seen its lowest unemployment rates (2.3% in February of 2007) in over 10 years.

With upgrades that make the Web site more interactive for all users, and transactional-centered rather than content-centered, the Utah Department of Workforce Services is focusing upon the needs of a growing customer base of employers and job seekers through the eJobs tool.

DESCRIPTION OF PROJECT

Descriptions of the Business Problem

Through the late 1990s, DWS offices maintained large bulletin boards covered with paper copies of Job Orders. The boards were difficult to update and maintain. Specialized employers had no way to give out referral information to only qualified applicants. As the number of job boards grew, the job seeker could not efficiently and effectively locate opportunities matching their skill set.

Purpose and Objectives

Management sought a viable electronic solution that would make it easy to create, maintain, and update Job Orders. Employers would need a process where only qualified job applicants received contact information and they desired an opportunity to browse resumes of potential employees that they would then be able to contact for further processing. The new system also had to provide greater search capabilities, reducing the time necessary for a job seeker to find the Job Orders that they might actually consider. Job seekers wanted to be able to create their own referrals while maintaining a profile that a potential employer could review. The objective was to create a better connection between the job seeker and the employer by means of a Web site that met the needs of both parties.

Solution Description

In 1999, DWS released an Electronic Job Board accessible through a browser on terminals in the local offices. Recognized issues were resolved with the release of a new self-service Web application in 2002, addressing the needs of both the job seeker and the employer. Job seekers were now able to input relevant resume information and search for all jobs electronically. They were also able to receive referral information without staff assistance. Employers were able to post and control their jobs electronically, they were allowed to create a job order and have DWS manage it for them, and they were able to search the resumes of potential employees to get contact information.

In November 2004, work began on rewriting the employer side of the Web site. In April 2005, the rewritten employer side of the site was released. In this version employers had many new capabilities.

In cooperation with the Workforce IT departments of Iowa and Montana, the code for the employer portion of the site was used to build employment exchange services in those states. Both Iowa and Montana, in turn, gave Utah their rewritten code for the job seeker portion of the site, which was then customized and reworked to fit the specific requirements unique to Utah.

In December 2006, a link was created to the new site, and job seekers and employers were allowed to preview the changes. Both the old and the new sites

ran in parallel for nearly four weeks. This allowed IT staff to view code issues in a production environment while determining load limits.

In January 2007, the old site was brought down and all links were directed to the new site. The few issues that arose were less challenging than if the sites had not run in parallel, making the switch nearly transparent to the user.

The new release was met with enthusiasm. Well placed advertising promoted the newly redesigned eJobs, generating nearly 20,000,000 hits in the first month, by 60,000 plus unique visitors. Since then the site has averaged over 18,000,000 hits each month, despite record-low unemployment rates in Utah.

Length of Time in Operation

eJobs has been in production and available to the public since December 15, 2006.

SIGNIFICANCE TO IMPROVED GOVERNMENT OPERATION

Operational Maturity

Starting as a simple electronic bulletin board with job postings, eJobs has evolved into a one-stop self-service application that meets the growing needs of job seekers and employers. This site has made dramatic improvements in performance and reliability over five years, as shown by the increasing number of employers and job seekers who utilize the services, and, although the site has expanded, site maintenance has been reduced by best-coding practices and code-sharing among states to the point where only one Web programmer is necessary for upkeep and development.

Predictable Results

As expected, the number of visitors to the site increased dramatically when the new site came into production. In the first month alone the number of unique visitors to the site tripled, while the number of hits to the site was 26 times higher than the previous year for the same period. In May 2007, nearly 70,000 unique visitors entered the site, compared to 17,461 in May 2006.

Other State agencies recognized how the benefits and potential services provided by eJobs might help them meet their own goals. In support of the Governor's USTAR initiative to recruit high-demand employees to Utah, the Governors Office of Economic Development and DWS created a portal for easy entry into the job seeker registration system. Those potential employees targeted by the marketing campaign are given a URL in their introductory e-mail and asked to input a special registration code when entering their basic information on the registration page. The code allows them to bypass a majority of the registration process and proceed directly to the desired job search results.

Cost Effective Development

Due to the availability of good open-source tools and limited budgets, IT staff use many low-cost applications to develop, implement, and maintain eJobs. The first versions of the application were developed using Sun's NetBeans and ran on Tomcat 5.0 as the Web server. Later versions use Eclipse as the development tool and Tomcat 5.5 as the Web server. All are available at little or no-cost to the Department.

Only one contractor was used full-time in the development of the 2005 employer side release, and that contractor also instructed in-house programmers on designing and building the site. As a result, DWS programmers developed the current site with very little assistance from outside sources, resulting in a savings to the Department.

Reliability and Timeliness

Programming staff were able to correct any minor problems with the new production release while increasing the customer service level throughout December 2006, as the old and new versions ran in parallel. Early implementation of the site was the key to no loss of service on the release date. Since January 2007, eJobs has never experienced a site failure and will be down for less than two minutes on scheduled monthly upgrades. These upgrades are completed early in the morning on a day when there is usually little traffic. The site is accessible 24/7 and has a programmer on call if issues arise.

PUBLIC VALUE OF THE PROJECT

Stakeholder Participation

All of the customers of eJobs, both internal and external, have continual input into the development and features of eJobs. A usability study was conducted statewide by DWS in November and December 2006, with changes implemented by programmers before the official release date in January 2007. Since 2005, employers are surveyed every six months on the site as to the effectiveness of their electronic Job Orders. There is also a comments feature that allows employers to ask questions and make suggestions. In March 2007, staff in each DWS office statewide was surveyed on the effectiveness of the new site and what could be done to improve usability. Resulting policy changes are currently being implemented by programming staff. Internally, a committee meets every six months to review the business of the site and recommends upgrades to improve the user experience.

Public Policy Benefits

DWS has made every effort to assure that eJobs is ADA compliant and accessible to all individuals in the community, including those with disabilities or limited skills. The ability to search for jobs is available to any visitor to the site, not just those who have registered. However, to receive referral information, a user must be a registered job seeker and must enter a user name and password.

One of the distinguishing features of the employer services is the ability to control and screen which job seekers see the referral information, as determined by the employer's qualifying criteria.

On the job seeker side, if the employer has indicated that only qualified applicants are allowed to see the referral information, and the job seeker does not meet those qualifications, an information box appears describing the minimum requirements of the employer.

Supporting Client Services

In helping to make customers aware of the services provided by DWS, eJobs contains links that make the application for services easier. For example, a link on the job-seeker's home page allows the a user to investigate and apply electronically for additional training provided by DWS. Because the majority of the information is filled out online, staff time is cut. If a job seeker requires the assistance of an employment counselor, an open case can be created online, allowing the job seeker to fill out much of the application at their leisure, again saving valuable staff time.

State and Agency Benefits

Both the employer and the job seeker sides of eJobs have been developed and rewritten by the Utah Department of Workforce Services and utilized in other states. Using new code for the job seeker side, Montana created a Web site and added the employer side when Utah was finished with that code. Two months later, Iowa implemented both the job seeker and the employer side. All three states work cooperatively to exchange code and ideas for improved site performance and new features.

Utah is currently rewriting the employer side for even better performance and stable code, which will be utilized by the other two states upon completion. Missouri is also on schedule to adopt and bring up their own version of the site in October 2007, with several other states making serious inquiries into obtaining the code for the employment exchange solution.

REALIZED RETURN ON INVESTMENT

Adoption

To write and implement the employer side of eJobs, the total cost to the State was $104,000 in April 2005. For the job-seeker side of eJobs, the cost was different, as it did not require the intense, new development, but was rather a modification of existing code from Iowa and Montana. That cost was less than $50,000 for the enhancements and changes. This redesign has allowed the Utah Department of Workforce Services to look at the way each customer is served in the local office and to recommend a reduction of staff and space in each office. These staff and resources can be now reassigned because the new technology makes it easier for the job seeker to find and gain employment.

Savings and Cost Avoidance

Due to careful planning by DWS IT management, eJobs did not cost nearly as much as other comparable projects. It was developed by DWS programming staff with minimal contactor help, the application is maintained by DWS programming staff, and all new development is done by a single programmer on the DWS staff. DWS staff conducts all usability testing. By developing the skills of programmers locally, DWS has been able to avoid outsourcing any part of the code or maintenance to outside vendors. The use of open source tools has also helped keep the cost minimal.

Return on Investment

Whether the State unemployment rate is high or low, both the job seeker and the employer are served by using the site. Even with a low unemployment rate, employers submitted over 30,000 Job Orders in the last five months and had the ability to search among 80,000 resumes in the database. A similar situation on Monster.com would have cost employers over $20,000,000. By passing on the savings to the employers, DWS has encouraged them to reinvest in their business and to utilize the free services offered by the State. Those savings led to a 10,000 Job Order increase; and an increase in Job Orders leads to more opportunities for the job seeker.

Continuing Operational Benefits

eJobs is self-sufficient, as it was developed and is maintained and hosted by DWS staff. By collaborating with Iowa, Montana, and soon Missouri, programmers have a productive environment for code reviews and error fixes. The positive effects of this sharing is passed on to both the employer and the job seeker, with improved functionality, less error-prone code, and cost savings to the taxpayer.