



# UTAH LEGAL SERVICES

*Committed to Equal Justice*

## ULS' Online Intake System Final Report

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### I. PROJECT GOALS & OBJECTIVES

The goal for this grant was to develop and implement an online intake system that enhances access to services for low income Utahans, including the hearing impaired, increases the number of clients served, and improves the effectiveness and efficiency of ULS' intake system. The specific objectives follow:

- Develop and implement an online intake system that enhances access to services and increases the number of clients served by enabling clients to submit applications and intake data 24 hours a day, 7 days a week;
- Improve effectiveness and efficiency of ULS' intake system by implementing system features that allow staff to directly import intake data from the online system into the client database system;
- Enhance usability for applicants and improve the effectiveness and efficiency of the online intake system by providing online applicants with live chat assistance;
- Enhance online intake user access by providing rapid telephone access to ULS staff during normal intake hours; and
- Improve hearing impaired applicant's access to services by customizing the online intake system to address their particular needs.

## II. EVALUATION DATA & METHODOLOGIES

The methods and data collection defined in the evaluation plan were executed as planned and included the following:

- Case management system data was used to track the number of applications processed. In addition, applicant demographic information is collected providing a basis to determine whether an applicant resides in a rural or urban part of the state;
- A survey of public users who completed the online application;
- A survey of intake and other staff regarding the online intake system;
- A survey of intake staff regarding the import function;
- Case management system and anecdotal data was used to track accuracy and error rates;
- Phone queue, case management system and anecdotal data was used to track staff time per intake;
- Online chat software was used to track staff time for online chats; and
- Data from the Utah Legal Services website using Google Analytics was used to track the "traffic" on the A2J online application from the website.

## III. SUMMARY OF MAJOR ACCOMPLISHMENTS, RECOMMENDATIONS AND FUTURE STEPS

**Accomplishments:** This project has succeeded in designing an A2J online intake application that is directly integrated with Kemps Clients for Windows (Kemps), ULS' case management system. The application was made available for testing on March 21, 2011 and was officially launched on ULS' website on June 16, 2011. The application includes the ability to check for potential conflicts and/or duplicates prior to the information being imported into the system. The result is a more efficient and higher quality intake procedure that saves staff an average of half the time of data entry per intake normally required.

Since the testing period, we have processed 146 online applications. Since the official launch, the total number of online intakes has consistently increased from a total of 26 applications in June, 35 in July and 60 in August.

Of the 146 online intake applications, 134 were unduplicated. Of the unduplicated cases, 87% were determined to be LSC eligible, as compared to only 55% of all other intakes. In addition, the number of applications received from rural versus urban counties breaks down to 55% urban versus 45% rural, compared with 63% and 37%, respectively for all other intakes.

In addition, traffic to the online intake web pages has increased. Since the launch in June 2011, we have had 3,178 page views, with 1,509 unique page views on the site. In addition, each month, the number of page views has increased.

**Recommendations:** ULS' experience indicates that this would be helpful to legal aid programs around the country. Also, any program that desires to implement an A2J online intake system should begin with the strategic policy level, getting staff on board and understand that the concept of online intake is more than a template; it is a fundamental component of extending service delivery to clients using technology in a purposeful, managed and clearly-articulated way. Project management will be a key component to the success of a project, especially if working with outside partners.

**Future steps:** ULS has applied for a TIG grant to expand this project for use in all initial intakes and would like to create a Spanish version of the A2J online intake.

#### IV. IN-DEPTH ANALYSIS OF ACCOMPLISHMENTS

*Objective 1: Create and implement an online intake system that enhances clients' access to services and increases the number of clients served by enabling clients to submit applications and intake data 24 hours a day, 7 days a week.*

We began by reviewing the A2J interview from Ohio and customized it for Utah. We contracted with Chicago-Kent to write the actual interview. After several reviews and conversations with Rachel Medina from Chicago-Kent, we gave the proposed script to community partners working with the deaf and hard of hearing for their input. The interview itself went through several revisions based upon feedback from partners and staff.

At this point, we felt the interview was ready for client testing via agencies. We outreached to several partners, including shelters, victim advocates, DWS workers and caseworkers at the Sanderson Center for the Deaf and Hard of Hearing. For testing purposes, we decided to train and bring agencies in a few at a time. To start, Craig Harrison presented information and training on the Online System to

shelter directors and victim advocates on March 10th. This was followed-up with an email to them prepared by Craige, but sent out by the Statewide Domestic Violence Council.

Another email was sent to the Salt Lake City YWCA, the Disability Law Center, Legal Aid Society of Salt Lake, the Sanderson Center for the Deaf and Hard of Hearing and the Courts Self-Help Center on March 18, 2011. Staff directly contacted DWS workers the following week to begin referring clients. Finally, the community action program was sent an email on March 30.

The online intake system officially went up for client testing on March 21, 2011. As was anticipated, more bugs were found and the interview was again updated several times. We kept track of needed changes to the A2J interview via a Google spreadsheet so that Chicago-Kent could make the changes. A summary of some of the changes to the interview can be put into 2 broad categories: 1) wording and order of questions and 2) programming/actions:

1. Wording and Order of Questions: We had several suggestions on wording to make the language more understandable as well as changes in the order of the questions. For instance, one partner suggested we move all disqualifying questions to the very beginning so people would know upfront if they were not going to qualify. As a result of this suggestion, we moved the order of several questions putting citizenship question, whether needs help with a criminal case, etc. all together.

2. Programming/Actions problems: We discovered several programming errors as well. For instance, we ask the person's age and if they are not 18 or emancipated, we tell them that we cannot help them through the online interview. However, the interview was actually kicking them out up to age 19, so we corrected that. Another example involved domestic cases in Salt Lake County. There is another agency that helps with domestic cases in Salt Lake County that the interview refers people to. However, not everyone living in Salt Lake County has a case in Salt Lake County, but the interview was kicking people out based upon their residence, so we had to add another question about where their case was located so not every case was "rejected" when the people lived in Salt Lake County.

We have set up the system so that we have very few callbacks and so that we can discuss legal issues with clients immediately during our intake hours. Hence, the

procedure is based upon the 3 possible ways clients can reach us after submitting an online application as addressed below:

- 1) Online Chat: We used our existing structure to implement the procedure. We currently have 5 intake workers, who will rotate responsibility for the online intake, each taking one day of the week. The intake worker will review online submissions for the previous day while we were not available and be responsible for chatting with any new clients submitting information. All submissions will be marked as case type "W" so that we can track the number of cases coming in. From research done, though the most done to date is three, we anticipate being able to handle 4 online chat sessions at a time. We also have two advocates on call each day from each substantive area. The primary advocate will take primary responsibility for phone intake while the backup advocate will take primary responsibility for online intake.
- 2) Scheduled appointments: The same intake worker will also be responsible for calling clients who scheduled an appointment. These appointments can only be scheduled 2 days in advance and are available in 30 minute increments, currently set for 10:00 am, 10:30 am, 1:00 pm and 1:30 pm. This schedule is adjustable for us so we can set different and/or more times as needed. The intake will proceed pursuant to our current telephone intake process.
- 3) Priority call status: We set up a toll-free number that is given at the end of the online intake application process. This number will give the submitter priority status in our telephone intake process, meaning that they will get directly into a special queue just for them, with intake workers taking calls from this queue with priority status. Once answered by the intake worker, it will follow our current procedure for telephone intake. Use of this queue will allow us to track the number of calls coming in.

To assess the effectiveness of the online intake system, we surveyed all those participating. Of the 78 surveyed, 96% said they found the system easy to use and 98% said they would recommend it to a friend. In addition, a review of our case management system data showed that 87% of the applicants were determined to be LSC eligible, as compared to only 55% of all other intakes. Finally, the number of applications received from rural versus urban counties breaks down to 55% urban versus 45% rural, compared with 63% and 37%, respectively for all other intakes. This shows that the interview is effectively reducing the time intake

workers are spending on non-eligible clients and that it has helped increase the number of rural applicants.

*Objective 2: Improve effectiveness and efficiency of ULS' intake system by implementing system features that allow staff to directly import intake data from the online system into the client database system.*

We contracted with Computer Assisted Legal Information via John Mayer to create the XSL transform to for us. The XSL transform converts the data generated by the A2J interview into a .csv file. In order to accomplish this, we created a spreadsheet that held all the variables created by the A2J interview and matched them with their counterparts in our case management system (Kemps). Some variables we added to Kemps, others we had go into a "Notes" field that was then transported into Kemps. The .csv file is then automatically transmitted to our local server, where we can access it to import into our Kemps. Ken Bresin programmed the import function. He designed a new screen and database table that automatically retrieves the information from all files sitting on our server when opened. The intake workers then view the information submitted, revise it if needed, add to it, check for duplicates and conflicts, then if appropriate, move and incorporate the information into the table(s) that holds all our client information.

As might be expected, we had several problems that had to be resolved. Some of the changes were small programming issues that we wanted changed for better usability by intake workers. Others were problems with the import "blowing up". Some examples of the changes follow: The interview set a rejection code of "Q" for everyone who was not a citizen or legal alien. However, in DV cases, we can still help, so although the interview would allow DV cases to go through, the rejection code was still being set to "Q". We changed this. Another example was that when we wrote the interview and the data transfer, we had not anticipated character limits. Each of our data fields have character limits, which we discovered could be easily exceeded as we tested. We had to go into the interview and set character limits on all the responses to prevent our transfer from blowing up.

When surveying staff, 100% said the system was user friendly and stable, though because the location of information was in a different place from their regular intakes, they said it took some time getting used to it. By chance, we had 7 clients that filled out an online application, who then went through the regular intake system. From that, we discovered that the online application is more

accurate when it comes to personal information, such as spelling of names, etc. This is especially important for checking for conflicts and duplicates. However, accuracy of income and assets had mixed results. We found that in about half the applications, the information gathered by the online interview was different from the information gathered by the intake worker, which showed that the verification process by an intake worker was very important.

Finally, in comparing staff time per intake, we discovered that having the information already recorded and only having to verify it, reduced the amount of time per intake. For instance, the average length of a call when an application was submitted online was around 10 minutes. This compares to average call time of 12 minutes in our regular queue. However, these statistics do not show the time difference as accurately as possible since the regular queue times also include "hang-ups", none of which we had in the online queue. Staff has stated anecdotally that they believe it takes about half the time of doing a regular intake.

*Objective 3: Enhance usability for applicants and improve the effectiveness and efficiency of the online intake system by providing online applicants with live chat assistance.*

As mentioned above, after submitting an A2J interview, clients are routed to a webpage that gives them several options. One of those options is to chat with an intake worker. The page shows whether we are currently on or off line.

Due to confidentiality and security issues, we decided to use Fastpath, which is built into the Openfire IM server and the Spark IM client as our Live Chat program. It is running on a ULS server. It has the ability to use SSL. We purchased a signed security certificate and installed it on the system.

The system has the ability to have queues similar to phone systems so that the person waiting in line will know how many are in front of them and what the expected wait time will be. All incoming chat requests are routed to our intake queue, where an intake worker chats with the person, verifies the information given through the A2J interview and determines eligibility for services.

If they are eligible for further service in 1 of our 3 main substantive areas (domestic, housing and public benefits); the intake worker routes them to an attorney or paralegal to discuss their substantive issues.

The system also has the ability to have canned responses so intake workers and advocates do not have to type everything. To date, 131 canned responses have been uploaded to the server, with more to come in the future as needed. These canned responses include responses to frequently asked questions as well as the most common referrals given out.

At first, we had a problem getting calls transferred to advocates. While we are not sure what caused it, we suspect it was staff using different operating systems, with some connecting remotely. After testing several versions of Spark, we were able to get it to work most of the time. Finally, they came out with an updated version of Spark which has resolved our issues. The transfers now work seamlessly.

Staff was trained extensively on the Live Chat system on Tuesday, March 1, 2011 and again on Tuesday, April 5, 2011. In addition, intake staff gets continual updates and training in staff meetings. Appropriate referrals are discussed at each staff meeting.

Our data shows that all chat requests were accepted. The average user wait time prior to being served was 13 seconds and the average length of a chat session was around 30 minutes. As anticipated, a chat with a client takes about twice as long as a phone call, but with the ability to chat to more than one person, the average would be about the same if doing more than one. In addition, most staff chat online with one applicant while talking to another client on the phone, so efficiency is still increased.

We surveyed both applicants and staff using the system. Of the 29 applicant surveys received, 100% said they found the system easy to use and would recommend it to a friend. Of the 6 staff surveys received, 83% found the system easy to use; 67% said they felt the system improved the application process for clients; increased the potential for applications and improved the efficiency of intake. Suggestions for improvement included adding the ability to spell check (a training issue, since spell check is built into the IM system) and adding to the number of canned responses.

One client said they would not have been able to go through the process without the chat system. He was a client that was hard of hearing, but who didn't know sign language. The only other option would have been for him to drive to one of our offices to try and communicate with us in person. Another potential client



was in Sweden temporarily caring for his parents. He said he would not have been able to contact us without the online system.

*Objective 4: Enhance online intake user access by providing rapid telephone access to ULS staff during normal intake hours.*

We have a Coral telephone system that already had queues for incoming calls from clients. In order to give priority service to online applicants, we simply started using one of the queues we were not previously using. We set up a toll-free number that bypasses our regular system and takes people directly to a recorded message regarding the queue, etc. It gives out grievance procedure information and then transfers them directly into the queue. Our intake staff currently log into several queues, including an English queue, a Spanish queue and a senior queue. They now also log into the online queue. Calls are routed by the order intake staff log into the queues, so we have at least 1 intake worker always log first into the online queue, which allows them to answer those calls first. The toll free number is given to applicants at the end of the online intake application process. Use of this queue also allows us to track the number of calls coming in.

A survey to staff show that they all think the system is usable, since it was incorporated into the system they were already familiar with. They also all felt it was effective and useful to clients. One suggestion for improvement was to make it easier for staff to know which queue the calls are coming from. They see this on the display of their phone, but only briefly. Unfortunately, however, our phone system doesn't have any other way of identifying the queue.

All applicants surveyed thought the system was easy to use and would recommend it to a friend. One applicant had difficulty because he was out of state and the toll free number only works within the state of Utah. We are looking into the possibility of making the number nationwide and/or coming up with another way for out of state callers.

Our data shows that the average user wait time prior to being served was about 1 minute and the average length of a call was around 10 minutes. This compares to average wait times and call length of 2 ½ minutes and 12 minutes respectively, in our regular queue. However, these statistics do not show the time difference as accurately as possible since the regular queue times also include "hang-ups", none of which we had in the online queue. More telling is the longest hold times,

however. For our online intake queue, the longest hold time was around 4 minutes. In our regular queue, the longest hold time was around 30 minutes.

*Objective 5: Improve hearing impaired applicant's access to services by customizing the online intake system to address their particular needs.*

As mentioned above, we asked the Disability Law Center and the Sanderson Center for the Deaf and Hard of Hearing and the Courts Self-Help Center to review and comment on the A2J interview and the process and make comments. They suggested several wording changes. For instance, one partner suggested we move all disqualifying questions to the very beginning so people would know upfront if they were not going to qualify. As a result of this suggestion, we moved the order of several questions putting citizenship question, whether needs help with a criminal case, etc. all together. Another suggested adding in information about safety in case the applicant was a victim of domestic violence. All suggested changes were made.

Also, as noted above, we had one specific applicant who said they would not have been able to go through the process without the online interview and chat system. He was a client that was hard of hearing, but who didn't know sign language.

A survey of the applicants showed that 96% found the system easy to use and 98% said they would recommend it to a friend.

## **V. FACTORS AFFECTING PROJECT ACCOMPLISHMENTS**

The project was completed on schedule, but still had factors that affected the ease of accomplishment that had to be overcome as follows:

- 1) Working with contractors who were busy with other projects increased the number of hours necessary to get the A2J interview and transform running smoothly. Having 3 people work on the interview took more hours than anticipated to get the interview running smoothly.
- 2) As mentioned earlier, we had difficulty getting the IM server and client software working the same for all employees. Chat transfers often wouldn't work. However, we were able to go through different versions of the client software until we found one that seemed compatible with all operating systems and after the most recent update of the software, everything seems to be working well.

3) We also had difficulty getting our automated scheduling scheme working properly. After an applicant submits their application, they have the opportunity to schedule a time for our intake staff to call them to complete the application. The scheduler had difficulties accounting for weekends, holidays and days we were closed. So, again, getting it to work increased the number of anticipated hours needed to complete the project.

## **VI. STRATEGIES TO ADDRESS MAJOR CHALLENGES**

The major challenges encountered during this grant were: 1) having to get other people up to speed on the project and 2) delays caused by technological incompatibilities. Neither of these was insurmountable, but did require a lot of communication and time. Some of the strategies in place that helped were:

1) Use of a spreadsheet to track necessary changes to the A2J interview. This allowed us to keep track of what was working and what needed to be changed, who changed them and when. We used a similar feature, though a tracker system, to keep track of problems and needed changes on the website and incorporation of the interview there;

2) Regular communication/meetings. We scheduled meetings on a bi-monthly basis specifically with our website developer to touch base and communicate. We also had regular meetings with our other partners. Email was used extensively as well to communicate and touch base on where things were;

3) Project management is essential. Without having a point person to coordinate all the pieces and make the necessary changes to the schedule, the project would likely have been greatly delayed, if even finished.

## **VII. MAJOR LESSONS AND RECOMMENDATIONS**

The primary lessons learned follow:

- No matter how much you plan, you need to be flexible. Issues will arise that will cause delays, whether it is with the technology or personnel or something else.
- This is much the same as website content. As with any web page, content and ease of use is the most important factor. The interview questions must be understandable to those who use it. Incorporating all the lessons learned from the website, such as plain language and bringing in partners to make sure we

address potential issues and concerns of potential applicants was not only very helpful, but essential.

- As with any project, we need to achieve buy-in from the staff and community partners. Staff and community partners are our greatest ambassadors for the site. If they are able to use the site and see its usefulness to clients, they are likely to refer clients. In addition, getting buy-in especially from senior management goes along way into getting buy-in from other staff members.
- As noted above, project management is essential. Without having a point person to coordinate all the pieces and make the necessary changes to the schedule, the project would likely have been greatly delayed, if even finished.
- We have also been the recipient of those who have gone before. The ability to see what others have done and to incorporate them has added tremendously to the project.

Some recommendations for other grantees include the following:

- When designing systems that involve XML data, be aware that the people who will use the system can find unexpected ways to “break” the system. When this happens, the data will not upload into the case management system. Make the interview as bullet-proof as possible. Take into consideration all the limitations of the case management system, such as character limits, and put those restrictions at the front end.
- Communicate well and get feedback often. Communication is very important in accomplishing any task. Though communication and feedback can be a two-edged sword, we have found it to be invaluable in improving and ascertaining the effectiveness of the system.
- Keep updated on technology tools. As use of the web becomes more popular, the tools being used and access become important in our delivery systems. We shouldn't be “afraid” to expand our technology to what is currently being used. They can be used effectively and make processes more efficient.