



APPLICATION FORM

All applications must include the following information. Separate applications must be submitted for each eligible program. **Deadline: June 1, 2016.** Please include this application form with electronic entry.

PROGRAM INFORMATION

County: County of Fairfax

Program Title: Courtroom Interpreting Control System

Program Category: Information Technology

CONTACT INFORMATION

Name: Wanda Gibson

Title: Chief Technology Officer

Department: Department of Information Technology

Complete Mailing Address: 12000 Government Center Parkway, Suite 527

Telephone: 703-324-4778 Website: fairfaxcounty.gov

Email: Wanda.Gibson@Fairfaxcounty.gov

SIGNATURE OF COUNTY ADMINISTRATOR OR CHIEF ADMINISTRATIVE OFFICER

Name: ROBERT A STALZER

Title: ACTING COUNTY EXECUTIVE

Signature: RA Stalzer



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County



Department of Information Technology Courtroom Interpreting Control System

INFORMATION TECHNOLOGY

A High-Tech Courtroom Interpreting Control System

Fairfax County, Virginia

2016 VACo Achievement Award *APPLICATION*

PROGRAM CATEGORY: Information Technology
POPULATION CATEGORY: 1,125,385 (2015)
June 2016

PROGRAM OVERVIEW:

The demands from a large, diverse population involved with the Fairfax County Courthouse require researching and implementing technological solutions to support high-volume interpreting for courtroom trials and hearings. Fairfax County judicial, legislative and executive management recognizes these challenges and not only support, but encourage innovative ideas and technological solutions to overcome the daily language barriers present during litigation in all three Fairfax County Courts and the Office of the Sheriff. The Fairfax County Court Technology Office (CrTO) led a collaborative effort including judges, court staff, deputy sheriffs, courtroom interpreters, and technical staff to identify a technological solution to improve the interpreting processes in the courtrooms and during arraignment and advisement hearings with the Adult Detention Center (ADC). The challenge was to improve and enhance interpreting processes with a technical solution that could be integrated with the existing high-tech courtroom infrastructure.

The CrTO mission strategically aligns all projects to the originating principles and objectives: *To improve citizens' access to the courts, facilitate trials and hearings in the most effective and efficient means possible, allow for all three Courts to share common resources, and provide for flexibility and adaptability to incorporate future changes in technology and court proceedings.*



DEFINITION OF PROBLEM/CHALLENGE: *State the problem, challenge or situation faced by the locality and how the program fulfilled the awards criteria (innovation, partnering or collaboration and a model for other localities). Tell how the program was carried out, including financing and staffing, and the program's results.*

Fairfax County encompasses 400 square miles and a diverse population that exceeds one million residents. The three courts, Circuit Court & Records, General District Court, Juvenile & Domestic Relations District Court, collectively oversee nearly 400,000 cases per year. More than 35% of Fairfax County's population speaks a language other than English, and more than 100 different languages are spoken. The Fairfax County Courthouse encounters daily language barrier issues, specifically during courtroom trials and hearings.

While the Courts have utilized technology to support interpreting in a number of ways, previous processes and systems encountered problems or negative outcomes. After assessing the situation, including extensive interviews with interpreters, judges, and deputies, the following problems and challenges were identified:

- ❖ A technological solution that could support both consecutive and simultaneous interpreting, with assistive listening capabilities for hearing impaired individuals
- ❖ Interpreters needed a way to control volume levels from multiple speaking participants
 - Interpreters often could not hear the witness, defendant, or attorney because these persons did not always speak directly into the courtroom microphones
 - Multiple participants speak at different audio levels; either too quietly or softly or too loudly causing over-amplification in the headset that can be painful to interpreters ears
- ❖ Interpreters could not hear sidebar during court proceedings preventing them from providing interpretation to the defendant
- ❖ Enhance and improve interpreting during daily video arraignments and advisements from the courtroom to the ADC
 - Improved audio amplification from the ADC by providing an inmate handset that connected to the interpreters control system in the courtroom
 - Judges had to continually mute and unmute their courtroom microphone during interpreted arraignments because the deputies in the ADC could not hear the judges' orders in English



- ❖ Interpreters had to use two microphones to perform interpretation in the courtroom (a headset microphone for the foreign language, and a hand-held, wireless microphone for the English) making it cumbersome to switch between the two microphones and take notes
- ❖ Eliminate security concerns caused by wireless technologies

DESCRIPTION OF PROJECT:

Prior courtroom interpreting equipment and processes placed limitations on the judges, clerks, deputies and interpreters to perform their duties in the most effective and efficient manner. Challenges also existed with interpreting sessions between the courtroom and the ADC during daily video arraignments and advisements. The CrTO created a project team that included all stakeholders to gain a better understanding of the interpreting processes, including the different methods of interpreting (consecutive and simultaneous) used in a courtroom, the arraignment and advisement processes, and related courtroom interpreting protocols. Project team stakeholders included judges, clerks, interpreters, deputy sheriffs, business and technical staff. The team collectively analyzed the challenges with prior interpreting systems and processes, and identified the necessary requirements summarized below:

- ❖ Explore new technologies to improve and enhance interpreting capabilities
- ❖ Improve efficiencies in courtroom interpreting for judges, clerks and interpreters
- ❖ Ensure the judges and other courtroom participants can hear the interpreters
- ❖ Ensure the interpreters can hear the judges, ADC and courtroom participants
- ❖ Improve the interpreting from the courtroom to the ADC during daily video arraignments and advisements
- ❖ Eliminate the need for interpreters to use multiple components to provide interpreting in the courtroom
- ❖ Provide the ability for interpreters to mute/unmute their headset microphone
- ❖ Provide the ability for interpreters to increase/decrease the volume levels in their headset earphone
- ❖ Utilize the existing high-tech courtroom infrastructure



- ❖ Provide the capability for the audio recording of interpretations while considering attorney/client privileges
- ❖ Provide multiple courtroom interpreting locations
- ❖ Provide consistency and standardization easily adaptable for all three courts
- ❖ Implement a system that is easy to use, and new users can quickly be trained on its use

The project team conducted extensive research to see what other organizations, jurisdictions and courts were currently using for interpreting, as well as visited other jurisdictions to assess their interpreting systems and processes. The research revealed that each court had unique requirements and challenges adding to the complexity of the project. Each courtroom had unique configurations and designs that directly impacted interpreting processes and the transmission of the audio. For example, the largest courtrooms in the Fairfax County Courthouse were designed with marble and wood surfaces making the audio adjustments in the courtroom and interpreter's headset very difficult. Likewise, the smallest courtrooms presented equally challenging designs with high ceilings and narrow square footage making a "one-size-fits-all" solution extremely difficult.

The research concluded that the prior technology and processes actually hindered courtroom interpreting in many ways. It was determined that an innovative solution would have to be designed and developed. Once the scope, requirements and fundamental approach were defined and understood, extensive research was conducted to identify new technologies utilizing both wired and wireless hardware and software to improve and enhance the interpreting processes. The team quickly discovered that it was necessary to pilot potential solutions in different size courtrooms for each court and interpreters to determine if improvements could be made consistently and effectively.

The interpreting pilots served to be a valuable experience and ultimately led to the customized Interpreting Control System solution in use today. Attempts to pilot wireless technologies revealed security vulnerabilities and negatively impacted the quality of the audio heard by the interpreters. Based on the pilots, the project team revised and updated new scope and requirements that met all project needs.

The project team research discovered a possible solution using a small control panel with a touch screen interface. A custom designed control panel could be programmed to allow interpreters complete control in the courtroom to meet individual interpreter preferences with the ability to control the volume in their headset earphone



for any courtroom microphone, including the judge, clerk, witness, attorneys, etc. The small, user-friendly control panel provides interpreters the ability to mute their microphone, and easily toggle between English and foreign language with a single headset microphone. Courtroom participants hear the English version of the interpretation through the courtroom speakers. IR headsets (see Figure 2) are also integrated and used as assistive listening devices to amplify the courtroom audio for hearing impaired individuals.

The team also discovered that the solution could be integrated with the existing courtroom technology infrastructure, was easily configurable, and met the nuances of both large and small courtrooms. The enhanced control system met all critical requirements, demonstrated the ability to improve the overall courtroom audio, improve courtroom protocols, and implement other enhancements to the courtrooms that provided an immediate return on investment, such as handsets in the arraignment room that requires non-English speaking individuals to step up to the podium and speak directly into a handset, allowing the audio to be transmitted directly to the interpreters.

While the engineering and programming is quite complex, the combination of the custom interpreter control panel, the professional-grade audio equipment, and the use of the latest technology in touch panel devices produces an easy-to-use, state-of-the-art interpreting control system. The system is available in all 18 high-tech courtrooms and will be expanded to additional courtrooms undergoing renovations.

SOLUTION:

The Fairfax County Court Technology Office (CrTO) has implemented an enhanced courtroom interpreting control system integrated with existing courtroom technology. The system utilizes leading edge technologies with a customized touch panel control device to provide high quality audio, supports simultaneous and consecutive interpreting in the courtrooms, and improves the interpreting process with the ADC during daily arraignments and advisements.

In the courtroom, a custom designed control panel (see Figure 1) allows interpreters the ability to control the volume in their headset earphone (see Figure 2) for any courtroom microphone, including the judge, clerk, witness, attorneys, etc. The small, user-friendly control panel provides interpreters the ability to mute their microphone, and switch between English and foreign language. Foreign language speaking individuals in the courtroom are provided a



wireless, Infra-Red (IR) headset, and foreign language speaking individuals in the ADC have access to a specialized handset. Courtroom participants hear the English version of the interpretation through the courtroom speakers. The IR headsets (see Figure 2) are also used as assistive listening devices to amplify the courtroom audio for hearing impaired individuals.



Figure 1



Figure 2

While the engineering and programming is quite complex, the combination of the custom interpreter control panel, the professional-grade audio equipment, and the use of the latest technology in touch panel devices produces an easy-to-use, state-of-the-art interpreting control system. The system is available in all 18 high-tech courtrooms.

BENEFITS/SUCCESS:

The Court Technology Office (CrTO) has implemented an enhanced courtroom interpreting control system. The system utilizes leading edge technologies to provide high quality audio, supports simultaneous and consecutive interpreting in the courtrooms, and improves the interpreting process with the ADC) during daily arraignments and advisements. The successful implementation of the Courtroom Interpreting Control System provided the following benefits:

- ❖ Courtrooms:
 - Improved the audio clarity for interpreters and courtroom participants
 - Supports both consecutive and simultaneous interpreting



- Provided the ability to switch the destination of their headset microphone between English and foreign language
 - Eliminated the need for the interpreter to need a secondary device (extra microphone) to provide the English interpretation to courtroom participants
 - Provided the ability to increase or decrease the volume levels of all courtroom and ADC microphone(s) in the interpreter headset earphone
 - Eliminated or significantly reduced the need for the interpreter to interrupt a proceeding to request the participant to repeat what was said
 - Provided the ability for interpreter to mute and unmute their headset microphone for multiple reasons such as the need to cough, switch interpreters without interruption, or eliminate the transmission of interpretation during a private attorney/client discussion
 - Utilized the existing high-tech courtroom infrastructure to provide consistency and standardization adaptable for all three courts
 - Provided multiple courtroom locations for interpreters to connect in the courtroom
 - Provided the capability for the audio recording of interpretations while considering attorney/client privileges
 - Provided an easy to use system where new users can quickly be trained, normally less than 30 minutes
- ❖ Advisements and Arraignments with the ADC:
- Provided seamless interpreting from the courtroom to the ADC during daily video arraignments and advisements
 - Eliminated the need for the interpreters to stand next to the inmates in the ADC by providing a clear audio and visual transmission
 - Eliminated the need for the judge to mute and unmute their microphone
 - Allows the deputies in the ADC to hear the judges' orders in English



- Allows all courtroom and ADC participants to hear the entire process including judges, inmates, interpreters, deputies in the ADC, and any family members in the courtroom

Finally, the project met the strategic goals and objectives to improve citizens' access to the Courts, facilitate trials and hearings in the most effective and efficient means possible, allow for all three Courts to share common resources, and provide for flexibility and adaptability to incorporate future changes in technology and court proceedings. For more information visit: www.fairfaxcounty.gov/courts/crto .

