



**Delaware's School Closing VXML Project  
Government to Citizen Category**

**Delaware's School Closing VXML Project**  
**Digital Government: Government to Citizen**  
**Executive Summary**

In December 2007, Delaware's Departments of Technology and Information (DTI) and Education (DOE) launched a new voice activation system which provides school closing and other school status information via telephone. The new system was demonstrated in January 2008, at a press conference in the Caesar Rodney High School library by DTI Secretary Tom Jarrett and DOE Associate Secretary of Education Dr. Michael Owens.

Over 15,000 people currently subscribe to the email subscription service for school closings and DTI leveraged this technology to provide a simple voice system for those who might not have access to a computer at home.

The new phone system utilizes existing web-based technology which currently provides school status information to email subscribers. The phone number is toll-free (877-831-7215) and permits parents, teachers, staff and students statewide to use any phone to obtain school status information any time day or night.

The voice system is capable of handling up to 24,000 calls per hour, assuming a 30 second average call time and can handle 200 simultaneous calls. Callers may request information for multiple schools; one school at a time and the system permits the same information to be repeated up to three times per call.

"This voice activation system is a wonderful addition to a very valuable resource, more and more of our community rely on the information provided within the school closing website. From this information, parents, teachers and students can make informed decisions regarding the status of their schools," said Associate Secretary of Education, Dr. Michael Owens.

Delaware's system was put to the test in February 2008, when a statewide snow event closed 99% of the schools statewide. The VXML application received well over 3100 calls, all of which were answered on the first ring, with absolutely no hang ups due to load.

## Delaware's VXML School Closing Project

### ***Section C Business Problem/Solution***

Working in the Information Technology field, it is easy to forget that there still is a very real digital divide for citizens in our country and in our state. Over 15,000 of Delaware's 700,000 citizens currently subscribe to Delaware's school closing email subscription service; however, a large percentage of our population has been forced to rely on local television and radio sources when inclement weather threatens school delays or closings.

The Delaware Department of Technology and Information (DTI) in its continuing efforts to deliver efficiency and multi channels of communication, partnered in 2007 with the state Department of Education (DOE) to develop a new application that provides citizens with a telephony option to the current web application for school closing and delay information.

The original IBM Notes web application provided the functionality of entering any closure or delay information to all Delaware public schools and participating private and parochial schools remotely. This information was then automatically published on a central state web site for public viewing by parents and students. The original application was then modified to be the flagship feeder application to the Delaware Information Subscription Service (DISS), which sends text based emails to subscribers who can register for a multitude of subscriptions offered via the service.

Both DTI and DOE recognized the need to develop an additional channel for the school information as trends showed the school closing and delay subscription service was the most popular subscription service choice among Delawareans. Citizens without email or web access had to rely on local radio and TV announcements. Any parent can attest to the fact that your child's school is always the one that just scrolled by as the television picture turns on.

### ***Section D Improvement in Government Operations***

To better serve both school administrators and citizens, DTI developed the new Voice Extensible Markup Language (VXML) application which;

 resulted in no additional work for the school administrators

- provides an additional front-end for the data being served up electronically via a toll free telephone number which parents and students can call on their own time schedule.

Though, VXML is still considered a leading edge technology for IVR development, DTI already has proven success with implementing such applications. DTI had contracted with a new VXML hosting partner, Voxeo in 2007 that made the cost and flexibility of this technology solution more viable.

With its previous vendor, DTI paid \$1000 per month for two toll free numbers with only 11 ports, meaning only 11 calls could be answered at one time. With the new vendor, Voxeo, DTI now pays 1250.00 per month; however VOXEO provides eleven toll free numbers as well as an array of additional services such as call recording, outbound calling and Spanish language recognition. Live technical support is available on demand rather than the previous vendor's poor response time of 12 hours or more.

With the new partnership, DTI could start offering separate dedicated toll free numbers to agencies instead of just becoming an additional option off a menu on our toll free voice portal.

The project posed its own set of unique challenges:

- the first application to be developed for our new enterprise VSP, Voxeo platform
- coordination between DTI and DOE Information Resource Management section
- coordination with all 19 public school districts, 17 charter schools and various private/parochial schools

## **Section E Public Value**

The school closing/delay telephony service was put into production in December of 2007 with the public unveiling in January 2008. The true successful test of the application occurred in February 2008, where a statewide snow event closed 99% of the schools statewide. The phone based application received well over 3100 calls with these benefits:

- All calls answered on the first ring
- no hangs ups due to load experienced

As a result of this successful first incident, several previously non-participating private and parochial schools showed an interest in using the application to communicate their closings and delays.

A continuing challenge taken on by DOE is keeping the toll free number constantly communicated to the rotating audience of parents and students each year. DTI took the lead with the public press conference after its launch as well as several interviews with both radio and coverage on local TV and printed news media. There was excellent feedback from parents and school administrators that this service was long overdue. The model of allowing the student or parent to call the toll free number is in fitting with today's text message/Twitter society, people who want their information on their schedule and in short bursts.

The technologies used in the solution are a varied mixed of new and old; the original Notes application for data entry and web page publishing, a new java based VXML application that polls the Notes web server for raw XML data both of which are hosted internally at DTI as well as all the VXML infrastructure hosted by our VSP, Voxeo including the telephony, text-to-speech, and speech recognition.

With the success of this service, DTI will continue on the path of delivering multi channels of communication to our citizens and customers with a hybrid of old and new technologies!