



State of Iowa

Iowa School Alerts Program



Nomination

for

**Information Communications Technology
(ICT) Innovations**

Category

Iowa School Alerts Program Executive Summary

Iowa School Alerts is a web-based application developed by the Iowa Department of Administrative Services (DAS) that provides school administrators with a secure, single point of access to initiate the notification process for various school closing events. Notifications are sent via e-mail or short message service to registered media outlets, parents, and other caregivers when schools must close, dismiss early, or start late due to weather or other factors.

The Iowa School Alerts design leverages the high societal adoption rates of internet connected personal computers and personal digital communications devices (i.e. digital phones, wireless e-mail devices, other personal communication systems) connected by an extensive wireless network throughout Iowa. DAS used an established and proven in-house authentication and authorization (A&A) application and applied our in-depth knowledge of government operations and citizen-facing web applications to develop Iowa School Alerts.

The Iowa School Alerts website (<https://schoolalerts.iowa.gov/>) provides a secure web-based enrollment service driven by the state developed A&A application for those wishing to receive school closing notifications. Subscriptions to the service are self-administered and updated by participants online. A single account can enroll for notifications from any of the participating schools. The Iowa School Alerts home page also contains a list of the most current notifications, which can be accessed from any internet connected browser.

The objective of Iowa School Alerts was to dramatically improve the efficiency of the school closing notification process. Traditionally, such notifications required the school administrator and several staff from 1 to 2 hours to make such notifications, depending on the size of the school and reason for notification. The list of phone numbers to be called in the event of such notification typically ran to several dozen and, for most parents, the school relied on parents receiving notification from radio and television announcements. It also improves the efficiency of the notifications received. The school closing notification services offered by certain radio and television stations were confined to the larger media markets and were unavailable to rural school districts. They would only allow parents to register for alerts on a school district basis, resulting in multiple notifications to parents who had to read and reject notices not pertaining to the specific school buildings they were interested in.

Within minutes of the decision to close a school early, school administrators can use Iowa School Alerts to make all of the required notifications to a larger number of interested parties in less time and with fewer staff. The same notification message is sent to all interested parties via email, TaskTicker (a small program which runs in the computer's taskbar and pops up an instant message on the computer screen), or a Rich Site Summary (RSS) feed for sites that wish to aggregate the notifications the School Alerts ticker system provides, e.g., media, community, school-related organizations, and individuals that wish to see a comprehensive list of school closings. The messages are customizable and can contain information specific to the event requiring the closing. The service is available at no cost to every school district and school building in the State of Iowa, regardless of population. The notifications are available at no cost to every interested party (i.e. media, parents, caregivers, transportation companies, etc.) and delivers information on a school building by school building basis. This significant improvement in communication gives greater peace of mind to parents and provides the social benefit of improving the safety and well being of our children.

Iowa School Alerts Program Description

The objective of Iowa School Alerts was to dramatically improve the efficiency of the school closing notification process. Traditionally, such notifications required the school administrator and several staff from 1 to 2 hours to make such notifications, depending on the size of the school and reason for notification. The list of phone numbers to be called in the event of such notification typically ran to several dozen and, for most parents, the school relied on parents receiving notification from radio and television announcements. It also improves the efficiency of the notifications received. The school closing notification services offered by certain radio and television stations were confined to the larger media markets and were unavailable to rural school districts. They would only allow parents to register for alerts on a school district basis, resulting in multiple notifications to parents who had to read and reject notices not pertaining to the specific school buildings they were interested in.

Iowa School Alerts was piloted in the last half of the 2006-2007 school year and was fully deployed for the 2007-2008 school year.

The total annual operational cost is \$24,140. This includes:

- Web hosting - \$8,640.
- Enterprise user authentication and authorization services - \$3,000.
- Ongoing programming enhancements and maintenance - \$7,500.
- Web service client improvements - \$5,000.

Funding has been provided by the IOWAccess Revolving Fund. IOWAccess is a state program created to promote and support a wide range of e-Government services to citizens.

Iowa School Alerts has been collaborating with media outlets for assistance in getting notifications from the system by working through any technical issues on a case by case basis. Many superintendents are reporting being able to reduce the number of phone calls they need to make and really appreciate the shortened timeframe it takes to send out notifications. Parents have been reporting that the ability to receive notices while away from general media information is very helpful. General public and School Administrator response and comment have been very helpful in the planning for future enhancements and changes

Iowa School Alerts Program Significance

Constituent Service Needs:

Originally, the intent was to provide only an e-mail notification service. Once testing was completed with the pilot school districts, the application supported three ways for staff, parents, guardians, daycare providers and the media to get notifications:

- Email Alerts - Interested parties can chose to receive email notices when a school or district they are interested in closes.
- TaskTicker - TaskTicker is a tiny program which runs in your computer's taskbar. When one of the chosen schools or districts closes, an instant message pops up on the enrollee's computer screen.

- RSS Feed – The Iowa School Alerts website provides a Rich Site Summary (RSS) feed for sites that wish to aggregate the notifications the Iowa School Alerts ticker system provides. This is a great way for the media and school related organizations to publish notifications on their own websites.

The program can be adapted to work for organizations of various sizes needing to provide electronic tailored, real-time notifications to constituent groups. The limitations on the number of notifications is constrained by the Lyris List Manager software and the information technology infrastructure on which it is deployed.

Security:

The Iowa School Alerts website provides a secure web-based enrollment service driven by a state developed authentication and authorization (A&A) application for those wishing to receive school closing notifications. Subscriptions to the service are self-administered and updated by participants online. The A&A enrollment process requires participants to complete security baseline questions that are used to prevent unauthorized tampering with the Iowa School Alerts accounts. A single account can enroll for notifications from any of the participating schools.

Privacy:

Subject to State-wide privacy policy linked in the application's footer, enrollment by the general public requires online authentication to a secure profile, preventing the harvesting of email addresses and other private data. School administrators, who have the authority to issue a closing or schedule alert, must establish an online account requiring further authentication by their school district. School district accounts must be established personally by approval of the School Alerts program manager.

Accessibility:

Iowa School Alerts employs universal design consistent with accessibility standards (commonly known as Section 508 or W3C Level One guidelines) and is subject to third party validation or certification.

Notifications are indexed by both school district and school building, so the media or other groups interested in a larger scope can watch multiple school districts, while parents or other individuals can be alerted only when their child's school is affected. Notifications can be sent to as many e-mail addresses and e-mail-enabled portable devices (such as PDAs or cell phones) as the user enrolls. There is also the option of creating an RSS (Rich Site Summary) feed for websites – a feature that runs like a ticker on the bottom of a TV screen, but one that is automatically and consistently updated with the latest information. There is no charge to schools, parents, the media, or anyone else to use Iowa School Alerts.

Usability:

The process is simple: superintendents or designated staff sign in from any computer with an Internet connection and create one message that is instantly sent via e-mail to all media outlets, parents, guardians, daycare operators and anyone else who has signed up to receive notifications about specific schools. Media outlets, not unlike parents and other interested parties, can subscribe to the districts in their broadcast area. The system then provides for delivery of notifications through a programmatic interface, feeding directly into the closing management systems used by radio and television outlets.

Iowa School Alerts Program Benefit of the Project

Iowa School Alerts was piloted in the last half of the 2006-2007 school year and was fully deployed for the 2007-2008 school year. It has been adopted by 193 school districts statewide in 595 school buildings. This represents just over half of the school districts in Iowa. Through March 2008, there were 8,956 registered users and 28,323 subscribers. The application has processed a total of 3,100 notifications and sent 134,019 e-mails.

The startup cost for application coding and testing were \$105,000. Iowa School Alerts uses the Lyris List Manager 9.0 for transmitting notifications and relies on IBM Websphere Application Server and MySQL for the enrollment and management processes. Existing staff were used to develop and deploy the application. The coding and testing of the application was done by state staff.

Full payoff for the project should be realized in 13 to 24 months.

Based on the current number of school districts using Iowa School Alerts, we conservatively calculate the ROI as follows:

2 hours of staff time (2.0 FTEs times 1 hour / FTE) per notification (without Iowa School Alerts) at a fully loaded cost of \$25 / hour times 2,000 notifications statewide per school year = \$100,000 annually.

15 minutes of staff time per notification (using Iowa School Alerts) at a fully loaded cost of \$25 / hour times 2,000 notifications statewide per school year = \$12,500 annually.

Annual savings = \$87,500

ROI = (Gain from Investment - Cost of Investment) / Cost of Investment

5 year return on investment = $(\$87,500 \times 5) - \$105,000 / \$105,000 = 3.16$