



The Power of Touch: Revolutionizing Safety for Students with Visual Impairments

Information & Communications Technology

**State of Illinois
Illinois Department of Innovation & Technology**

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Executive Summary

One-Touch Innovation

The Illinois School for the Visually Impaired (ISVI) operates in a non-traditional environment where emergency communication systems such as phones, radios, alarms, and public address announcements were not designed for a campus where many students cannot rely on sight or sound. Staff supporting blind, visually impaired, and deafblind students often work hands-on, making it difficult to step away, locate a device, and verbally report an incident with accurate location details. These situations created operational risk, delayed response, and forced staff to choose between staying with a student or leaving to request help.

To address this risk, the Illinois Department of Innovation & Technology (DoIT) partnered with ISVI to modernize emergency communications and remove multi-step reporting during critical incidents. The Centegix CrisisAlert system was selected to provide immediate, wearable, one-touch alerting with precise real-time location data. Responders now receive actionable information instantly, without relying on visual or verbal communication under stress. Implementation required a customized approach tailored specifically to ISVI's unique accessibility environment. DoIT, ISVI, Centegix, and integration partners conducted detailed site assessments, mapped high-risk and difficult-to-navigate areas, and aligned the system with existing infrastructure and assistive technologies. Coordination with local emergency medical services and law enforcement ensured the system fit into established response protocols. Staff adoption was strengthened through scenario-based training on campus.

The system is now fully operational and integrated into daily safety practices. In its first year, it supported seventeen documented emergency incidents involving medical and behavioral situations. ISVI staff were able to remain with students while responders were directed immediately to the correct location.

Average law enforcement response time decreased from 6-7 minutes to 3-4 minutes, and initial communication delays were reduced to seconds. Staff report a greater sense of safety in responding to incidents, particularly in situations involving students who are deaf or deafblind. This project reduces operational risk and improves emergency response by enabling immediate alerts and accurate location sharing across a campus where accessibility needs shape how the environment operates.

Idea

Accessible Innovation

THE CHALLENGE	THE INNOVATION
Multi-Step and Verbal: Staff had to leave a student, locate a phone/radio, and explain the crisis verbally	One-Touch and Wearable: Staff press a single button on a wearable badge instantly without leaving the student
Aural/Visual Dependent: Relied on flashing lights, alarms, or public announcements not designed for deafblind/visually impaired spaces	Silent and Direct: Sends silent, instant digital alerts directly to responders without requiring sight or sound
Vague Location Data: Describing complex campus locations (stairwells, basements) under high stress caused delays	Precise 3D Mapping: Transmits exact real-time location data automatically to responders

At the Illinois School for the Visually Impaired (ISVI), an emergency is not announced by flashing lights or ringing alarms. It is defined by how quickly staff can communicate in a space where many students cannot rely on sight or sound. ISVI is a state operated residential and day school under the Illinois Department of Human Services (IDHS), Division of Rehabilitation Services. Established in 1849 and located in Jacksonville, Illinois, ISVI provides accredited educational and related services to children and young adults from birth through age twenty-two who are blind, visually impaired, and deafblind.

Guided by its mission to support students in becoming personally productive and self-sufficient citizens, ISVI creates a campus environment where communication, mobility, and access to information are not always visual or verbal. Staff frequently provide hands-on support during instruction and daily care when incidents occur. Before this project, emergency communication relied on traditional methods such as phones, radios, and public address systems. When something went wrong, ISVI staff had to disengage from the situation, find a communication device, and explain what was happening and where they were. Response depended on staff being able to safely step away and clearly communicate under stress. That model created operational risk in time sensitive situations. Staff often had to stay with a student while trying to call for help and describe their location. On a campus with specialized learning and mobility spaces, including stairwells, basements, and residential areas, location description was difficult.



These challenges were intensified by accessibility needs across ISVI. Many staff and students rely on non-visual or non-verbal communication methods, meaning emergency information typically requires interpretation before responders can act. These delays directly affected both response time and overall safety outcomes.

Recognizing these constraints, the Illinois Department of Innovation & Technology (DoIT) worked with ISVI to modernize emergency communications and reduce reliance on multi-step reporting during critical incidents. The goal was to enable immediate alerting with accurate location data that did not depend on interpretation under stress. The Centegix CrisisAlert system was selected as the solution to meet this need, providing a wearable device that allows staff to trigger an emergency alert instantly while transmitting precise location data. This functionality gives staff a faster and more reliable way to get help in the right place, supporting Illinois' broader focus on coordinated campus safety systems. While designed for ISVI, this project reflects a broader state need for emergency communication systems that function effectively in complex environments.

Implementation

Strategic Deployment

The implementation of Centegix CrisisAlert at ISVI required more than a standard technology rollout. The system had to function in a highly specialized environment where staff are actively supporting students with visual impairments and deaf blindness, often in hands-on, fast-moving situations. From the beginning, the focus was not just on installing technology, but on ensuring the solution would work in the exact conditions staff experience every day. The project followed a phased implementation roadmap designed to minimize disruption while ensuring full operational readiness. Initial efforts focused on site assessment and environmental analysis. DoIT, along with ISVI leadership and staff, walked the campus, observed daily movement patterns, and identified high-risk and hard-to-access areas such as stairwells, mobility training spaces, residential corridors, and transitional hallways. These observations directly informed system design and beacon placement to ensure accurate location data during an emergency.

Following the assessment, the project moved into system design and integration. DoIT worked alongside Centegix, integration partners, and ISVI technical staff to align the solution with existing infrastructure, including communication systems and assistive technologies such as screen readers, Braille devices, and mobility tools. The architecture was designed to function as part of a broader safety ecosystem, integrating with existing notification systems to support coordinated response across multiple channels. Deployment was executed through coordination between DoIT telecommunications and engineering teams, the IDHS-ISVI safety team, ISVI leadership, and local emergency response agencies. Engagement with Morgan County Emergency Medical Services and the Jacksonville Police Department ensured the system aligned with response protocols and could be immediately incorporated into existing emergency workflows. This collaboration was critical in bridging on-campus alerting with off-campus response.

Four-Phase Implementation Strategy

Phase 1: Assessment

- Campus walks
- Movement pattern review
- Location mapping

Phase 2: Deployment

- Coordinated launch with DoIT
- IDHS safety team
- Local emergency response agencies

Phase 3: Integration

- Infrastructure alignment
- Assistive technology synchronization
- Multi-channel routing

Phase 4: Adoption

- Short, scenario-based staff drills
- Building trust

Project management followed a coordinated, cross-functional approach led by DoIT, with continuous feedback between ISVI and technical teams. Regular check-ins, site validations, and iterative testing ensured issues were addressed early to stay on track. Adoption and stakeholder buy-in were driven through short, scenario-based drills tailored to real campus situations, such as responding to a medical incident while supporting a student or activating an alert while moving between buildings. This approach served to build trust and ensured staff immediately understood. From a resource perspective, the project leveraged existing state contracts, DoIT engineering expertise, and ISVI staff support. This approach minimized additional costs, reduced implementation time, and ensured long-term sustainability.

Success was defined not only by deployment, but by operational readiness: full campus coverage, reliable alert performance, smooth integration with existing systems, and consistent staff adoption. The system went live without disruption to instruction or residential services and was immediately operational in everyday situations.

Impact

Measurable Outcomes

There are moments on the ISVI campus where everything is happening at once. A student needs support, instruction is ongoing, and staff are fully engaged in hands-on guidance. In those moments, the difference between control and uncertainty is often measured in seconds. Before this project, asking for help required staff to disengage from the emergency situation. A staff member would need to find a phone or radio, stop what they were doing, and explain both what was happening and where they were. On a campus with non-visual navigation and complex buildings, that description was not always immediate or precise. Each step added time, and each delay added risk. Now, that sequence has been compressed into a single action.

Quick Facts

50% reduction in law enforcement response time

17 incidents successfully supported in year one

Initial communication delay reduced from **minutes to seconds**

A staff member presses a button, and the system immediately transmits the request with location data attached. There is no pause to step away from a student, no gap to interpret location, and no uncertainty for responders about where to go. Response begins while the situation is still unfolding. That change is reflected in measurable outcomes. **Average response time from local law enforcement has decreased from approximately 6-7 minutes to 3-4 minutes.** More importantly, the initial communication delay that previously slowed the start of response has been reduced to seconds.

The system has been used in **seventeen documented events** involving medical and behavioral situations since implementation. In each case, staff were able to remain with students in need while responders were directed immediately to the correct location without additional clarification or disruption to care. One example involved a medical emergency in a stairwell where staff were actively engaged with the individual and could not step away to call for help. With this system, a staff member was able to trigger an alert right away and send their exact location while staying with the individual. What stood out afterward was not just the speed, but how quickly responders could act with clear location information. Beyond individual incidents, staff describe a noticeable change in how they handle emergencies. This approach is critical in an environment like ISVI, where accessibility is not optional. Emergency response now functions without reliance on visual or verbal communication during high-stress moments, ensuring consistent support for all staff and students, including those who are deaf or deafblind.



"Since the addition of Centegix we have noticed an overall increase in response time. We now know exactly where we are to go and then the 'team' that is needed arrives at the same time.

We are then better able to give directions on next steps and get the person the attention they need. We can quickly assign someone to get items, call 911, or get others removed from the scene. This also aids in our follow-up needs."



Aimee Veith

Superintendent, Illinois School for the Visually Impaired



The solution is now fully embedded in campus operations and supported through ongoing training and response protocols. It is designed for long-term sustainability and serves as a scalable model for environments where accessibility, complexity, and safety must operate together.

This project reduces operational risk, improves coordination with external responders, and strengthens emergency response efficiently across a complex campus environment. It also closes gaps in communication, location accuracy, and response initiation. Most importantly, this technology successfully addresses real safety concerns for these students.