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2022 Emergency Notification Deep Dive

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Survey: Fewer Campuses Following Emergency Notification Best Practices

According to the 2022 Campus Safety Emergency Notification Survey, fewer organizations are using more than one alert system, which could put them at risk during a crisis.

By Robin Hattersley

There are two critical reasons why it's wise for any academic or medical facility to have at least two (and probably more) emergency notification/mass notification systems:

1) Doing so helps them avoid having a single point of failure. If one technology stops working for some reason, the other technology(ies) can hopefully pick up the slack.

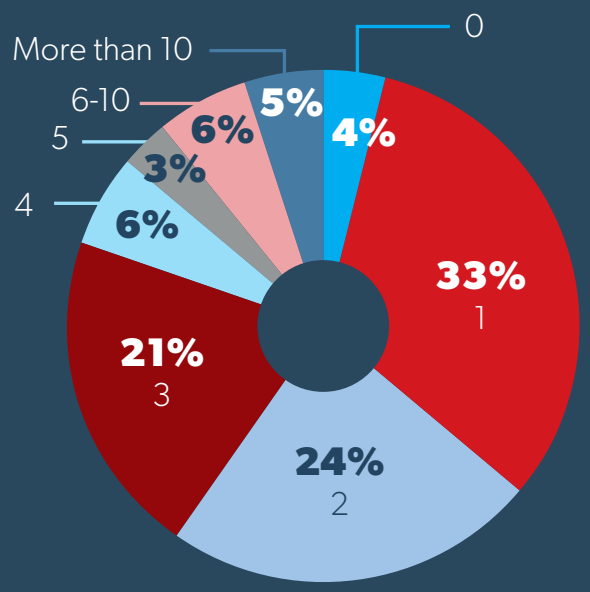
2) Having multiple systems ensures leaders at a school, college, or hospital can reach more people with alerts during a crisis because the strengths of one technology can compensate for the weaknesses of others.

For example, **text alert systems** are effective ways to reach on-campus and off-campus students, employees, and parents who have signed up to receive notifications on their mobile phones. However, visitors who aren't registered for the system or students who have turned off their phones to take a test won't be reached if a campus only uses this method of emergency notification.

Loudspeaker announcements can quickly reach most people on campus but won't reach the hearing impaired, people who are listening to loud music on their smartphones, or people who are off campus. **Digital signage** emergency messages also are instantaneous and can be read by most community members but won't reach the sight impaired, as well as individuals who aren't on campus.

It's a best practice then for schools, institutions of higher education, and healthcare facilities to have multiple modes of emergency notification. Unfortunately, the results from the 2022 Campus Safety Emergency Notification Survey found that fewer campuses are deploying two or more alert systems than they have in previous years. *(See Figure 1.)*

Figure 1. How many emergency notification or mass notification systems does your organization use?



Only 64% of respondents to this year's survey said they use two or more emergency notification systems, with 11% having six or more systems. The 64% with two or more systems is an eight-percentage point drop from **2020** and 16-percentage point drop from 2019. More than a third of this year's respondents (37%) said they use only one system (33%) or zero systems (4%) for emergency notification.

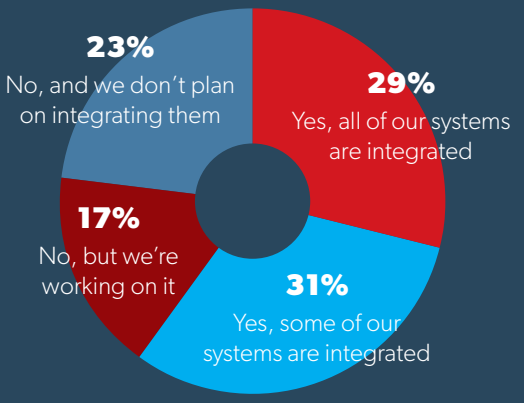
It should be noted, however, that this question did not ask if the survey takers with single systems have multiple modes of communication that are integrated (such as email, SMS texting, digital signage, etc.) Hopefully, most of the respondents who said they only use one system have multiple technologies that are integrated.

But if a campus is only using one technology, it most likely won't be able to quickly communicate life-saving information during a crisis to many of the students, faculty, staff, clinicians, and visitors on and off campus. The organization also runs the risk of having no ability to communicate should the one technology they are relying on be inoperable for some reason.

More Campuses with Multiple Technologies Are Integrating Their Systems

For those respondents who use two or more mass notification systems, this year's survey found 9% more have **integrated their systems**, compared to when we asked about integration in 2019. Sixty percent said all (29%) or some (31%) of their systems are integrated, while another 17% are working to integrate their technologies. That said, nearly one in four (23%) respondents said they aren't planning on integrating their emergency/mass notification systems. *(See Figure 2.)*

Figure 2. If you have multiple emergency notification and/or mass notification systems, are they integrated?



The increased rate of integration is a positive trend because integrating systems can reduce the time needed to deploy emergency messages, which helps an organization achieve its goal of quickly disseminating potentially life-saving

Empower Your Staff with the Fastest and Easiest Way to Call for Help

We see the headlines in the news every day that safety incidents have risen dramatically across all aspects of our community. This is one reason why the retention of teachers, healthcare workers, and other staff has been a challenge.

Staff want to know they can get help when they need it, easily, immediately, and from anywhere on campus. With the simple push of a button on a wearable badge, CENTEGIX CrisisAlert communicates who requested help and where they are on campus with their precise location information.

CrisisAlert delivers on the five leading practices of incident response solutions:

» It's available to all staff and works anywhere on campus
» It's simple and fast to use
» It quickly communicates precise information
» It clearly communicates to the entire school community with audio and visual notifications
» It addresses all types of emergencies, daily incidents, and crises

Our wearable CrisisAlert badge enables 100% adoption and does not require users to download an application to a personal mobile phone. The badge is the easiest to use in any emergency, unlike mobile phone applications that may not be easily accessible in a crisis. CrisisAlert does not rely on Wi-Fi or cellular coverage, and the badge does not require charging.

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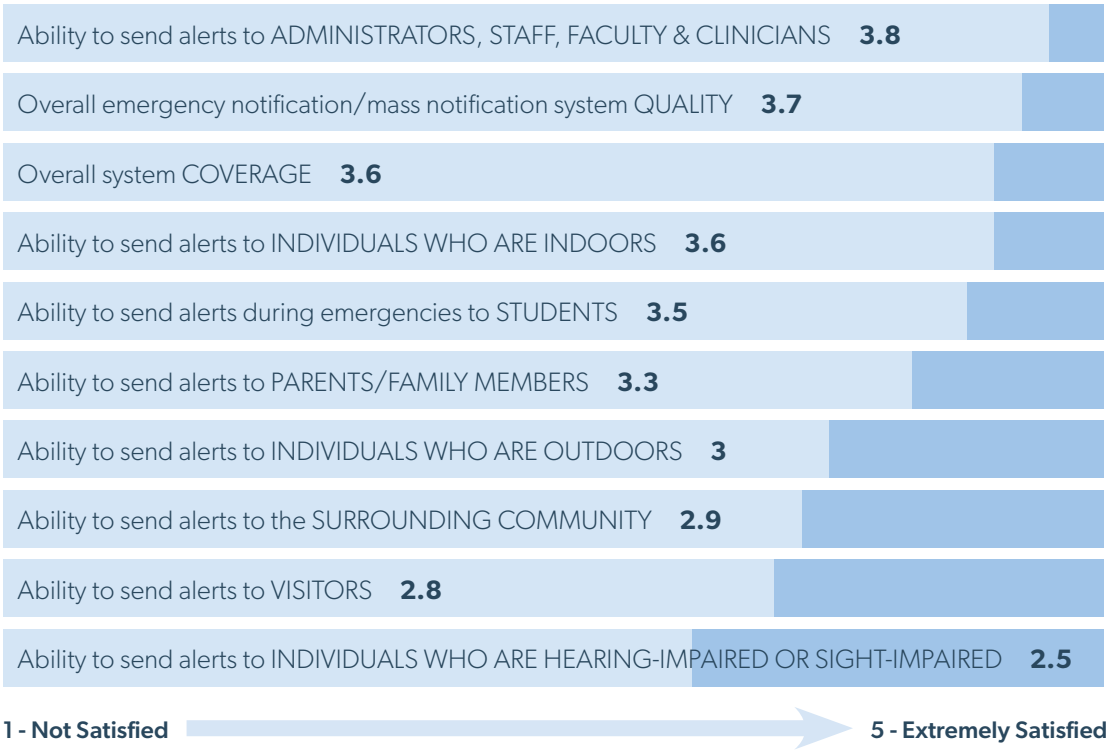
information during a crisis. So, the results from the 2022 Campus Safety Emergency Notification Survey indicate some progress on this issue.

Many Struggle to Reach Hearing-Impaired, Sight-Impaired

This year's survey asked respondents to rate their level of satisfaction with various aspects of their mass notification systems. Survey takers said they have the greatest satisfaction with their organization's ability to send alerts to employees, such as administrators, staff members, faculty, and clinicians (3.8, on a scale from one to five, with one being "not satisfied at all" and five being "extremely satisfied"). ***(See Figure 3.)***

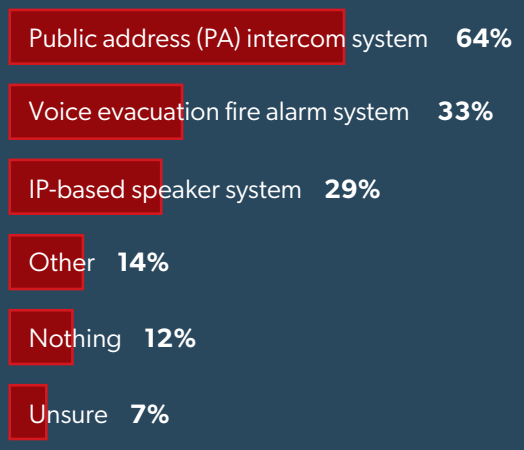
Figure 3. On a scale from 1 to 5, with 1 being "not satisfied at all" and 5 being "extremely satisfied," please rate how satisfied you are with the following:



Following closely behind is satisfaction with overall emergency notification/mass notification system quality (3.7) and coverage (3.6), which are nearly identical to 2020's satisfaction level with overall campus emergency notification programs (3.7). The ability to send alerts to individuals who are indoors (3.6) is next, which is a slight improvement over 2020's rating of 3.47. This year's respondents rated their ability to send alerts to students at 3.5 and their ability to send alerts to parents/family members at 3.3.

Many said they struggle the most with their ability to send alerts to individuals who are **hearing-impaired or sight-impaired** (2.5), while they do slightly better with visitors (2.8) and the surrounding community (2.9). Communicating with individuals who are outdoors ranked slightly better at 3.0, which matches 2020's 3.01 rating of outdoor emergency notification systems.

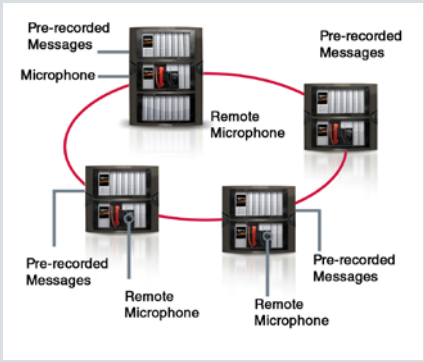
Figure 4. What are you using for your in-building voice communication for mass notification? *(check all that apply)*



Nearly two thirds of respondents (64%) use public address (PA) intercoms for their in-building voice communications for mass notification, while about a third use **voice evacuation fire alarms systems** (33%) and IP-based speaker systems. However, more than one in 10 (12%) don't use anything for in-building voice communications for mass notification. *(See Figure 4.)*

Broaden Emergency Coverage in Mass Notification with Advanced Fire Alarm Systems

Modern incident management systems should enable fire alarm, mass notification, and building integration in one comprehensive emergency communication solution. When combining distributed messaging with in-building and wide-scale voice annunciation from the fire alarm system, it becomes possible to deliver system status in real-time and facilitate decision-making from anywhere.



In connecting multiple buildings, up-to-date fire panels utilize modular architectures that incorporate innovations in network configuration, audio, circuit survivability and, when connecting to external networks, adequate levels of cybersecurity – all while complying with codes and standards. This advanced approach is the key to effectively responding to fires, weather emergencies, environmental crises, or active shooters. Additionally, when modern fire panel systems are listed to UL 864 and UL 2572, they have been designed and will be installed in a manner that helps ensure alarms and notifications operate as expected.

In addition to comprehensive design and installation standards, these systems are required to be tested regularly to help ensure functionality when most needed. When creating indoor and campus environments that improve occupant health and safety, such as an emergency response plan, having this level of preparation provides the confidence campus managers and students have come to expect.

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EDWARDS

Campuses Use Emergency Notifications for a Wide Variety of Situations

Like in 2020, respondents to this year's survey said they most often use their emergency notification/mass notification systems during situations where there is an **active shooter/active assailant** (86%). Not surprisingly, nearly that many (78%) use their alert technologies during lockdowns. *(See Figure 5.)*

Figure 5. Situations when emergency notification/mass notifcation systems are used

Active shooter/active assailant	86%
Lockdown	78%
Building fires	70%
Tornadoes	65%
Weapons on campus (gun, knife, bomb, or bomb threat, etc.)	62%
Hazmat situations	58%
Storm warnings & watches	45%
Public health advisories/notices	38%
Power disruptions	38%
Floods	37%
Frost/snow advisories & snow days	37%
High winds	33%
Earthquake	32%
IT network disruptions	29%
Hurricanes	28%
Off-campus dangerous situations	28%
Sexual assault/violence	27%
Non-emergencies (e.g. homecoming announcements, blood drives, etc.)	24%
Lightning	23%
General crime notifications (theft, vandalism, etc.)	21%
Missing student	20%
Homicide	19%
Traffic issues/road closures	18%
Infant abduction	17%
Parking lot issues/closures	16%
Wildfires	15%
Missing patient	15%
Construction/renovation problems	14%
Off-campus crimes	14%
Amber alert	11%

Building fires (70%), tornadoes (65%), weapons (62%), and Hazmat situations (58%) are other times respondents said they frequently use their mass notification systems.

However, it's hit or miss for other types of emergencies or situations. Only 32% of respondents said they use their alert technologies for earthquakes. That lower percentage for this risk is understandable because most areas of the country are not prone to earthquakes.

However, all areas and every type of campus that participated in this survey are vulnerable to IT network disruptions. Despite this, only 29% of respondents use their emergency notification systems during this type of situation.

Frequency of Use, Non-Emergency Use Run the Gamut

How often a campus emergency notification/mass notification system should be used is a topic of hot debate among campus protection professionals. There are also varying opinions on using alert systems for announcements for non-emergencies, such as homecoming rallies, blood drives, ice cream socials, etc.

The decision on how and how often a campus should use a system depends on the technology being considered. Use a system like SMS texting or emergency alert mobile apps too often and for too many non-emergencies, and you run the risk of people ignoring your alerts or opting out of receiving

your emergency messages. But, if you don't use those systems very often, you might not be getting the most out of your technology investment. Also, system administrators might forget how to use the technology.

Digital signage, on the other hand, lends itself to both non-emergency and emergency messaging. In fact, most messaging posted on digital signage should probably not be related to emergencies. If campuses regularly post interesting and helpful non-emergency information on their digital signs, those efforts will train students, staff members, administrators, visitors, clinicians, and faculty to frequently look at campus digital signage for the information they need. Then, when an emergency does happen, the campus can quickly post alerts, which will be noticed by the community because they are accustomed to looking at campus signage.

As noted in ***Figure 6***, email is the emergency notification method most frequently used by respondents. Four in ten use it weekly (11%), several times per week (11%), or daily (18%). Additionally, 85% of respondents use email to convey non-emergency messages ***(see Figure 7)***. These findings aren't all that surprising, considering campus email is used by staff members for day-to-day business.

Figure 6. How often do you use the following emergency notification/mass notification systems?

	Daily	Several times per week	Weekly	Monthly	Several times per year	Yearly	Never	Don't know	N/A
SMS text alerts *(mobile phones)*	6%	7%	9%	23%	35%	9%	3%	5%	4%
Digital signage	9%	4%	9%	4%	19%	5%	26%	6%	19%
Fire alarm voice evacuation	1%	2%	4%	24%	23%	9%	16%	8%	14%
INDOOR audible emergency notification systems *(speakers, PAs, intercoms, overhead paging, strobes, and sirens)*	11%	11%	7%	20%	25%	9%	6%	6%	5%
OUTDOOR audible emergency notification systems *(speakers, PAs, intercoms, overhead paging, strobes, and sirens)*	4%	8%	2%	13%	18%	6%	16%	11%	21%
Email	18%	11%	11%	20%	26%	4%	1%	6%	2%
Emergency alert mobile apps	8%	4%	6%	18%	19%	6%	11%	9%	19%
Social media	7%	6%	15%	13%	22%	4%	13%	9%	10%

Figure 7. Which systems, if any, does your campus use to send NON-EMERGENCY messages *(check all that apply)*:

Email	85%
SMS text alerts *(mobile phones)*	63%
Social media	61%
INDOOR audible emergency notification systems *(speakers, PAs, intercoms, overhead paging, strobes, and sirens)*	32%
Digital signage	31%
Emergency alert mobile apps	23%
OUTDOOR audible emergency notification systems *(speakers, PAs, intercoms, overhead paging, strobes, and sirens)*	16%
Fire alarm voice evacuation	9%
Not applicable	6%

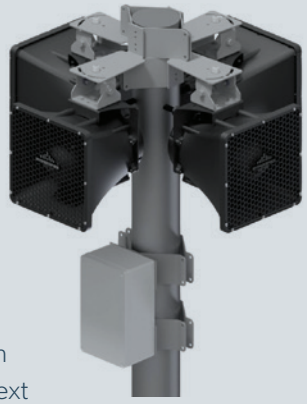
Campuses also use indoor audible communications systems frequently: 29% use them weekly, several times per week, or daily. Furthermore, 32% of respondents said they use this technology for non-emergency announcements.

Twenty-eight percent of survey takers use social media at least weekly, while 61% use it for non-emergency messages. The frequent use of social media for non-emergency communications is a wise move in that it makes the community aware that an organization's Twitter, Instagram, Facebook, and other social media pages are trusted sources for information. This makes students, teachers, staff, and members of the surrounding community more likely to refer to campus social media during a crisis.

More than one in five (22%) respondents said they use their SMS text alert systems weekly, several times per week, or daily, and 63% use this technology for non-emergency announcements. Hopefully, the nearly two-thirds of respondents using SMS for non-emergencies are being careful not to overuse their systems, which could prompt campus community members to opt-out or ignore important emergency messages.

When it comes to digital signage, 22% use it daily, several times per week, or weekly, while 31% are using it for non-emergency announcements.

HyperSpike TCPA-10 Array Provides Economical, Easily Integrated Emergency Notification



As campuses respond to increased financial, safety, and security pressures, the need to centralize and integrate emergency notification has become paramount. This integration includes mass notification technologies, such as visual indicators, signage, text messages, and voice paging/notification. Emergency notification, regardless of its form, needs to be effective, reliable, and efficient to truly protect and serve the campus.

HyperSpike, originally developed to provide emergency notification to the U.S. military, now provides UL certified voice paging and notification systems to the commercial fire and life safety and emergency notification markets.

HyperSpike designs and manufactures patented speaker and amplifier products out of its facility in Indiana. These systems provide reliable, crystal clear voice notification that is easily integrated into any existing campus emergency notification system.

The HyperSpike TCPA-10 Array, featured in this **video**, was developed to provide a low cost, effective and easily integrated solution for any campus. To demonstrate the capability, HyperSpike partnered with the local K-12 campus in Columbia City, Indiana, to solve notification issues within their recently co-located school campus.

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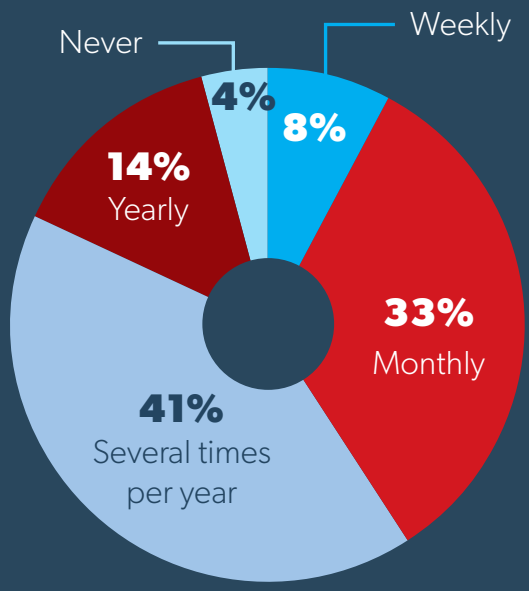
HYPERSPIKE

82% of Respondents Test Their Systems Several Times per Year or More

Another new question to this year's survey is, "How often do you test your emergency notification/mass notification systems?" ***(See Figure 8.)*** We included this question because it's wise for campuses to frequently test their emergency/mass notification systems. Doing so ensures that administrators running the technology know how to use it. Frequent and regular testing also lets campus public safety and emergency management personnel know if the system is working properly. The last thing any campus official wants is to find out during a crisis that their alert system is malfunctioning.

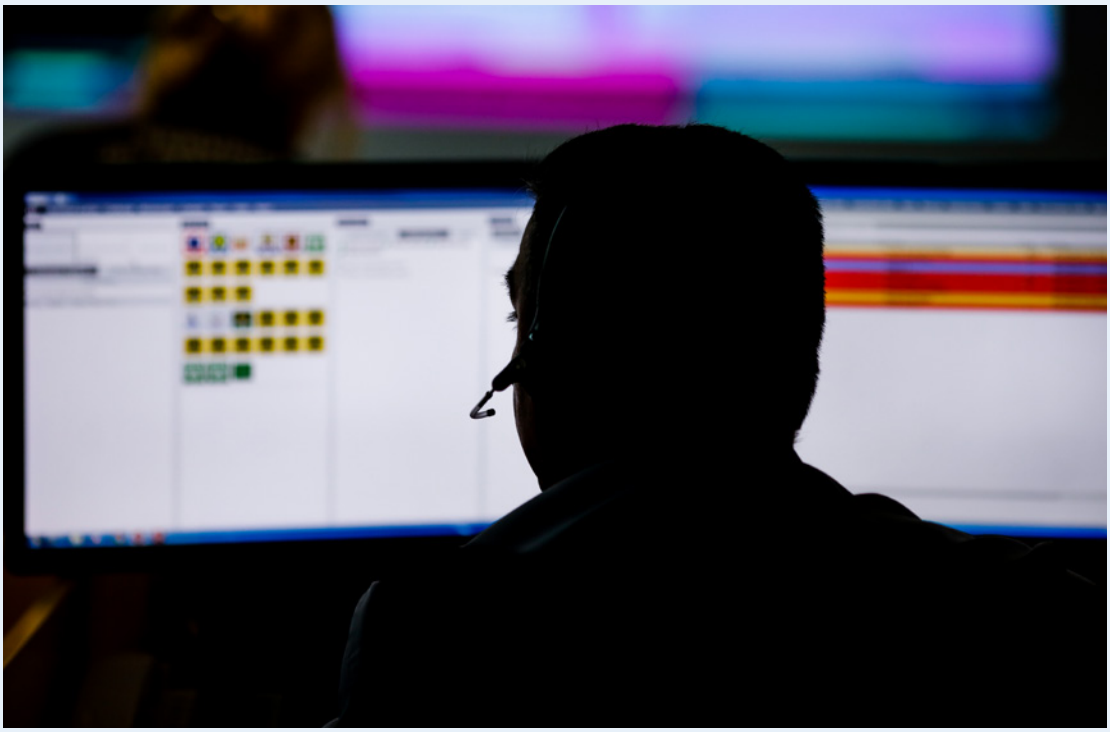
Figure 8. How often do you test your emergency notification/mass notification systems?



Fortunately, 82% of our survey takers said they test their emergency notification/mass notification systems several times per year or more. However, 18% of respondents are taking a big risk by only testing their systems yearly (14%) or never (4%). +

Campus Safety *thanks the more than 200 campus protection professionals who participated in this year's survey. We truly appreciate your input!*

Check out the results from some of our previous Emergency Notification Deep Dives: 2021 | 2020 | 2019



In Their Own Words: Respondents Comment on Their Emergency Notification Challenges

INTEGRATION

» During a recent tornado warning, we activated our PA/intercom system multiple times with sirens and voice content to notify indoor, outdoor, and incoming students, employees, and visitors to seek shelter in a safe place. We activated our text/phone/email mass notification system to alert all current curriculum students and employees of the same information to quickly reach people at our satellite campuses and anyone otherwise not onsite. It would have been a much smoother process if these two systems were integrated, as well as our systems that were not used during this event, so that the content could have reached more people and in a timelier manner.

» Lack of integration and cohesiveness between system to ensure full organization alerting. Including staff that are by policy not allowed to carry personal cell phones while working. Also, accurate contact information for staff.

» Costs and integration of existing ENS mediums with others.

» Having multiple systems makes it hard to remember to utilize.

TRAINING

» New members of staff and fresh cohorts take time before they realize the importance of security.

» Staff need more training on how to respond
» Making sure people check texts/email
» One challenge is the emergency page operators may forget to use our mass notification system when a patient has eloped but never forget when it is a natural occurrence or life threatening situation.
» Parent notifications are ignored and this group often becomes an issue for campuses to handle.
» Mobile phone-based systems don't work as well as we wish they would. We find people to be talking and texting to friends and loved ones instead of monitoring/responding to alerts during an emergency.

SYSTEM FUNCTION/INSTALLATION

» Expanding the system to additional buildings on campus as renovations are being completed. Not all buildings are outfitted with indoor ENS due to costs.
» Labor intensive to set up. Want more than a polling option for two-way communication Mobile application - ability to send a message anytime/ anywhere We are not leveraging the tool to be use for all emergencies/scenarios.
» The challenge that we have faced is that some of the mass notification systems do not provide enough forms of notification and are chosen by people who have virtually no experience in the Public Safety world. For our organization (or any really) you have to provide a multi-faceted approach. You cannot just rely on SMS text messages and email. You need the following. - SMS Text messages - Email notifications - Visual alerts (strobe or indication lights) - Display take over messaging (televisions switch from campus news to emergency alerts. You also need the ability to have personnel (staff, students etc.) to reply back to a general SMS way to update their status….a general "I am safe and fine" for someone at home vs. "I am in need of help" in case of an active shooter or other emergency. We also have had issues integrating the various technologies. Some are older proprietary technology is not very adaptable to newer notification systems.
» Outdoor notification
» Multiple areas in building where volume is considered too low for clear communication
» Sometimes we have experienced delay in delivery of notifications; deployment of system relies on access to technology and wifi; not all incidents can be addressed the same.
» Indoor systems are not adaptable to emergency announcement system revisions.
» Wiring, speaker and IT issues
» You cannot hear it outside in the building hallways.
» We have trouble sharing messages to ALL personnel on our campus. All we have is our intercom system, that varies in effectiveness based on your location on our property.
» The weather can change in a blink of an

eye and having to respond to that takes 24/7/365 attention to detail.
» No way to alert visitors. No audible alerts in classrooms, no emergency lights
» Alerting hearing impaired, accounting for all students and staff during different times of day
» Not everyone having apps or not having good wifi connection to make the app most effective.

POLICIES

» Does not consider visitors.
» Being able to send messages to vendors or renters of space that are not directly tied to the university
» We utilize a text/phone/email mass notification system that has the capability to integrate with our PA/intercom system, digital signage, website, social media, and more; however, we haven't followed through with these capabilities so far. The result is hoping enough people trained to use our various systems are in place during an emergency event, ready to act, and then timing notifications so that one won't interfere with another (i.e., waiting until non-recorded announcements are made over the PA system before sending out the campus text/phone/email alert, so that the sending departments' incoming phone and text alerts are not heard through the buildings' speakers). Different departments regularly work with different notification systems, with no single person or backup trained to handle all systems, meaning that how one emergency event is broadcasted may differ from another similar event; people are not always in place when needed.
» Only select staff can send out text app alerts. Sometimes these select staff members are unavailable and the alert is necessary.

DATABASE

» Have to keep the list updated constantly
» Not everyone in the community has signed up to get the notifications, so they may miss important information.
» Challenges include making sure all providers that may not be employed with our company but are credentialed to work in our building, have access to emergency notifications.
» Some alerts don't apply to all recipients, but too many groups are already set up. Continuing to add groups makes it difficult and clunky for those responsible to send notifications. End result is that some alerts are a nuisance/interruption for recipients that don't need the message.
» Systems can be slow and are only as good as the data entered into them. Ensuring to remind people throughout the year to update their phone numbers is a big one.
» We have major issues with keeping updated contact information for students and parents. Our emergency notifications need school board approval and that can be a slow and is sometimes too late.

» We have difficulty purging the listed contacts and subsequent notifications for individuals that have left the university systems (mainly student and family contacts).

MISCELLANEOUS

» Off campus crime concerns
» Staff and kids don't want to add apps to their phones.
» We have had difficulty getting the messages out in a timely manner. Once it was due to a power outage but other times it has been an issue with our process. We recently sent out an alert related to severe weather only to have the weather service issued expiration time change right after we sent the alert. This caused some confusion.
» Lack of cell phone or wifi coverage
» Staff turning off notifications! Notifying classes when they are out of the room (teacher does not bring device) or outside (intercom issues).
» Numerous students no longer wanted to return to campus due to COVID, virtual classes became challenging.
» Social media control. Students' and teachers' access to social media during testing, training and actual events disrupts the entire process.
» All staff members have permission to use the PA to notify the building of an event. Frequently, the wrong language or old language is used and misunderstandings follow. (Shelter in Place was called for a Medical Hold situation). Human error is common.
» Some of the phone calls did not make it to the intended receiver. However, they were able to get the message because we used several modes of communication to contact our parents/guardians.

In Their Own Words: Respondents Comment on Their Emergency Notification System Successes

» Integrating with HR system to make EMNS opt-out for all staff and providers.
» When we had severe snow storms, the email alert to leave before the snow fell (for those who were able) worked well.
» We were able to integrate our voice over fire alarm system with our mass notification platform.
» The messaging has been able to keep people clear of crime scenes for processing and of hazmat situations (floods and downed branches).
» Able to reach approximately 70% all registered staff via phone message within 1 hour of initiating alert.
» All staff are enrolled in mass notification system.
» Excellent service from our system provider.
» Our messaging app allows for auto sending of messages for tornado or life threatening weather. It auto navigates location based on NWS mapping and will send to people within that geographical location. It bases on home and work addresses and will also include people working remote in other areas of the country/world. As the NWS map moves, additional alerts will be sent if more people are within the alert locations.
» Templates and protocols make the notifications easy and quick for those activating.

» Whenever we have a patient that elopes, we are able to send a mass email to all staff no matter their location by the method they sign up for, phone call, text or email.
» Building locked down successfully.
» Routine use has been successful
» Missing patient was found in less than 10 minutes after alert.
» We have included LE and dispatch into our mass notification for building lockdown alerts to activate quicker response.
» Notification systems span across our 1,200-acre campus.
» The campus pushes out crime notifications. My internal system is used to augment Fire Evacuations and other in building incidents.
» The text alerts work the best, we get more reach. The only issue is the opt-in.
» We recently added strobes to any high-volume (noise) areas of the school, to include CTC/shop areas, boiler rooms, etc.
» Was pivotal in communicating during the first 2 years of the Pandemic.
» Able to deliver emergency messages to students during heavy rains and thunderstorms.
» Traffic issues during monsoons were easily communicated to the community.
» In the last six months we have sent out notifications of sexual assaults that had occurred on/near campus. With each notification it has encouraged others and given them an avenue to report unreported sexual assaults that may have otherwise gone unreported. We were able to direct the reporting parties to those that could help them.
» Ability to secure 3 schools in response to criminal activity in the area.
» We currently use our phones and PA for all emergencies, except fire alarms through pull stations. Secretaries called for a Hold to ensure a situation in the hallway was kept secure and private. We will be updating this to an automated system within the next 6 mos.
» We had an incident where we needed to cancel school due to unexplained smoke in a few classrooms. After the notification went out, students were picked up in a timely and orderly manner.

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