

YOUR ENTERPRISE MOBILE DURESS CHEAT SHEET:



PROTECTING Your People

By Eric Banghart

Panic alarms help your healthcare organization move beyond the security of physical assets to the protection of your clinicians, staff and security personnel.



While it is impossible to entirely eliminate the possibility of violence in the workplace, there are measures that can greatly reduce the risk. Of those measures, studies have found enterprise mobile duress (EMD) systems to be the most effective. In fact, after surveying the complete range of security options available to emergency departments, the Institute for Emergency Nursing Research concluded that, “Only one [environmental control measure] was significantly associated with lower odds of physical violence – panic button/silent alarm.”

Unlike other types of security applications, an enterprise mobile duress system exists for the sole purpose of protecting people from harm. It does so by providing instant alerts to security personnel in case of an emergency. This can be when an employee believes they are in imminent danger, needs immediate assistance or when they become aware of a broader emergency that should be reported. An EMD system provides protection not only for the staff member carrying the wireless alarm transmitter, but for the entire healthcare environment.

At its simplest, an enterprise mobile duress system consists of three components:

- A wireless alarm transmitter used to send an alarm in the case of an emergency
- A wireless receiver or repeater network to carry the alarm signal throughout the campus
- An RF gateway to receive the alarm and disseminate it to responders

Because the purpose of a mobile duress alarm system is to ensure the safety of the employees carrying the alarm transmitters, the system must meet certain requirements to be effective.

SYSTEM MUST IDENTIFY LOCATION OF INCIDENT

Today's healthcare environment regularly tests security administrators. Hospitals are no longer an isolated group of free-standing buildings. They are critical infrastructures forming complex medical centers.

The difficulty of providing adequate security increases when the inherent mobility of healthcare employees is considered. This is why an enterprise mobile duress system must provide the location of the emergency along with the alarm to ensure there is an appropriate response. Without location capability, an EMD system is of little use.

Since technologies like GPS are ineffective indoors, location is typically provided using algorithms that take advantage of the system's repeater backbone and/or fixed end devices. An EMD system must be able to locate employees with a high enough level of location granularity to provide an effective response.



EMDS MUST NOTIFY ALL APPROPRIATE PERSONNEL

Hospitals must anticipate violence and have a plan to prevent it. Each staff member, whether full-time, part-time or per diem, needs to be trained in de-escalation tactics and have the tools, support and empowerment to know how to act rapidly when an episode does erupt in the emergency department.

The key word in that statement is “rapidly.” Due to the nature of the emergencies, it is not sufficient for an alarm be sent to only a central station or a single command center. An enterprise mobile duress system must be able to alert campus first responders, no matter where they are, to provide a response that is rapid enough to be effective. An EMD system must also effectively alert everyone from administrative staff to patients, and even in certain crises, the entire healthcare facility. As such, the system must be able to accommodate or integrate with a broad array of messaging devices. These should include, but not be limited to telephones; cell phones, using voice and text; pagers; two-way radios; public address systems; digital signage and E-mail.

Because emergencies on healthcare campuses are as complex and diverse as the medical facilities themselves, notification must also be flexible and adaptive. Violence can

arise from patients forced to wait for treatment due to understaffing or overcrowding; psychiatric patients, especially those not being medication-compliant; gang members and criminals seeking access to drugs; substance abusers undergoing withdrawal; and violent individuals who see medical facilities as easy

targets. An enterprise mobile duress system must provide a method for coordinating the delivery of alarms such that the right information is delivered to the right responders. Additionally, if some or all of those people are unavailable, delivery must then proceed to others able to deal with the emergency.

Likewise, because healthcare facilities usually operate on 24-hour schedules, different people will be available at different times. For this reason, the system must also allow for different alerting actions based on the time of day or the day of the week.

PANIC ALARM BEST PRACTICES

As with any new security system, there are critical steps to ensure an organization is deploying the most effective enterprise mobile duress (or panic alarm) solution possible. Below are best practices for any organization considering an EMD system.

Best Practice	Implications
Best Practice #1: Accept the realities of today's workplace	Workplace violence is increasing and shows no sign of slowing. Ignoring this trend can only prevent an organization from taking the steps necessary to ensure the safety of its people.
Best Practice #2: Take a holistic approach	An overall security plan needs to include access control, video monitoring and intrusion detection. An EMD system is designed to protect an organization's most valuable asset: its people. It does so by identifying emergencies as they happen and providing the location, the type of incident and the response needed in alert messages to first responders.
Best Practice #3: Extend integrated physical and logical security solutions beyond physical asset protection	An EMD system goes beyond traditional security approaches that advocate layers of access control, video monitoring and intrusion detection to protect a building and its assets. It is a critical part of a comprehensive security plan, focusing specifically on the safety of people within and around the facility.
Best Practice #4: Extend coverage beyond high-risk areas	An enterprise mobile duress system covers any number of individuals at one time. It's most effective when implemented across departments, entire campuses or even multi-site locations to accommodate the mobility of today's workforce.
Best Practice #5: Embrace “fit-for-purpose” enterprise-grade wireless duress systems	Life safety requires the utmost in reliability and performance. Make sure the wireless infrastructure used is interference-hardened, suited for security applications and capable of delivering prioritized duress messages without compromise.
Best Practice #6: Establish policies and procedures	Implementing an enterprise mobile duress system requires organizations to train staff on the expanded role of EMD systems in the security ecosystem; conduct ongoing education regarding when and how to use a duress system to ensure successful threat identification and response; and work to align the organization around response protocol, which may range from assistance from near-by staff members to a fully armed police or security detail.
Best Practices #7: Make EMD and integrated security a top-level organizational strategy	An EMD system should integrate into campus operations and help drive continuous improvements. It must provide system administrators the ability to survey and analyze events, such as the number, type and location of duress calls, as well as response metrics to invite operational improvements that impact the entire organization.

WIRELESS NETWORK MUST BE ROBUST

There is no requirement more important for a mobile duress alarm system than reliability. There are numerous kinds of wireless technologies, and most are not capable of operating reliably enough in demanding healthcare environments to support an enterprise mobile duress application.

The demands placed on a wireless network by hospitals differ from those of most other industries. The building materials themselves create challenges to RF propagation. An EMD system needs to penetrate a variety of structural materials, including bricks, steel, insulation and even the lead used in radiology departments. Nor are the buildings on campus the only places that need protection. Staff must also be protected in stairwells, parking lots and on the grounds.

Moreover, because of the large scale of most healthcare campuses, an enterprise mobile duress system must be capable of supporting a virtually unlimited number of mobile

Radius EMD Systems Covers All of Your Panic Alarm Needs

Radius is a complete enterprise mobile duress solution. It provides immediate notification when help is needed and directs responders to the location of the call, allowing a rapid, accurate and effective response. Radius features positioning technology, a proprietary location algorithm used to pinpoint mobile duress alarms. It uses the fixed end devices and repeaters already in place to establish the commercial mesh network to determine location. The mesh commercial network used by Radius has been proven to work in the most difficult of RF environments, including tunnels, stairwells, parking garages and common grounds. Location granularity can even be refined through the use of soft points. Likewise, the commercial mesh network is dedicated, secure and self-healing, carefully optimized to ensure the complete coverage necessary to save lives.

Radius can notify staff and administrators of alarms no matter where they are, even if they're not on the campus. Radius ensures that emergency alerts are delivered by using the devices hospital employees depend on, including two-way radios, VoIP telephones, E-mail, mobile phones, digital signage and text messaging. No matter where the responders and administrators are, Radius ensures they are immediately notified of emergencies. As incidents escalate, the recipient list can expand so that emergencies are handled by appropriate personnel, ensuring the safety of everyone. Notifications are easily configurable by time of day, day of week and event type.

duress pendants to ensure that every employee is protected. Because of these demands, many commonly used wireless technologies are inadequate for mobile duress. Those that allow other applications to run on the same wireless system

as their mobile duress system can incur interference and down time, for instance. Likewise, those that are not designed specifically to provide scalable, campus-wide coverage can experience unacceptable dead spots. An EMD system requires

a dedicated network so the characteristics of the wireless technology are carefully balanced to meet the demands of personal security.

EMD IS YOUR HOSPITAL'S MISSING LINK

Whether in emergency departments, behavioral health programs or human resource departments, hospital employees are increasingly at risk of physical violence. The problem has reached epidemic proportions, and shrugging it off as simply a part of the job is no longer morally, financially or legally tenable.

Beyond the considerations of accreditation and freedom from punitive damages, healthcare staff have a right to a safe working environment. Fortunately, there is one security measure that can help prevent violence: an enterprise mobile duress system. Just as an intrusion system protects against illicit entry and a fire system protects against fire, an EMD system protects against harm to employees. It is a critical component of any security system concerned with employee safety.

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3 Steps to Getting the Enterprise Mobile Duress System You Need

Each of the following components plays a critical role in the effectiveness of an EMD system. Closely examine each piece during the selection process.

1. Select a pendant (panic button)

Pendants are the wireless alarm transmitter option of choice for enterprise mobile duress systems. Pendants are wearable, allowing employees to access their alarm transmitters at all times. Special consideration should be given in the selection of pendant type based on a facility's security and response protocol:

- When ease of activation is the priority, a single-button pendant transmitter is the preferred choice
- When false activations are a concern, a double-button pendant transmitter is the preferred choice
- Multi-button, multi-condition pendant transmitters include buttons that can be configured for conditional activation, such as assistance alarms vs. duress alarms or medical assistance vs. security response



2. Create an implementation plan

Before installation begins, the integrator and the campus security administrator should develop an implementation plan. First, conduct a site survey to help determine the total

amount of hardware required, where hardware needs to be mounted, if new electrical drops are needed and if there are any existing structural issues that need to be considered. Next, define the areas the head end will recognize when a duress call is made from a panic duress transmitter. In 900MHz systems, for example, coverage can be easily extended beyond established room definitions to areas such as parking lots or common areas. To enable system intelligence in these large areas, points of interest are collected and used within the location algorithm to improve accuracy. This step is often referred to as "finger-printing" and is part of the definition process.

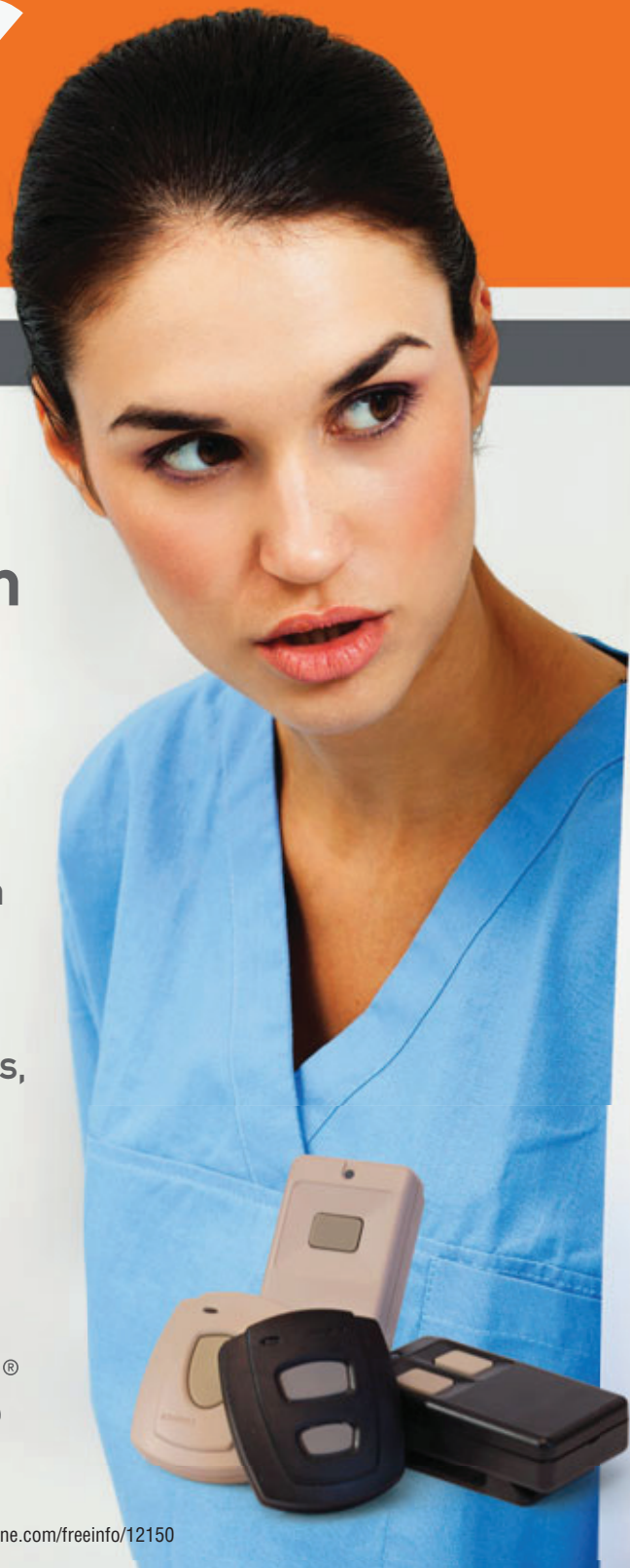
3. Use an adaptive notification method

For an enterprise mobile duress system to truly focus on people protection, it must have the ability to alert everyone and anyone on or near a campus or facility. For maximum effectiveness, there needs to

be a wide range of devices that can receive alerts, including telephones, cell phones (via voice and text), pagers, two-way radios, public address systems, digital signage and E-mail.

Notification must also be flexible and adaptive, ensuring that it provides a method for coordinating the delivery of alarms so the right information is delivered to the right responders. If some or all of those people are unavailable, delivery must then proceed to others who are able to deal with the emergency. Furthermore, the system must adjust its alerting actions based on the time or day.

Hospitals can be safer



Radius Enterprise Mobile Duress System

Every year, healthcare workers face more assaults than police officers or prison guards.

With Radius, staff can alert security personnel or responders of their location before a situation becomes violent.

Radius can cover at-risk units, such as behavioral and emergency departments, or even entire campuses.

Learn how Radius can protect staff at inovonics.com



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